

# An ArcGIS® Census Data Model—Dissemination

This diagram illustrates a geodatabase data model that can be leveraged by census organizations across the globe to support the dissemination process for census data. This dissemination model aligns closely with the topologically nested polygon feature classes that represent the common boundaries for how census data will be tabulated. This model illustrates how the age variable could be defined, and census organizations can easily modify the model to reflect additional variables. Most census organizations would likely have hundreds of variables on each feature class.

## Census Feature Dataset

Province Feature Class

District Feature Class

Municipality Feature Class

EnumerationArea Feature Class

## Census and Administrative Hierarchy



Province Feature Class				
Field	Alias	Description	Type	Nullable
GeoID		Global geography ID. This will be same as the Province ID (pp).	String (2)	false
GlobalID	Global ID	GUID identifier used by system for creation of relationship classes	GlobalID	false
OBJECTID		Object ID	OID	false
ProvinceID	Province ID/Code	Province ID. This is a 2 character string identifier.	String (2)	false
ProvinceName	Province Name	Province name	String (250)	false
ProvinceAbbr	Province Abbreviation	Province abbreviation, 2 or 3 characters	String (3)	true
SHAPE			Geometry	false
AdminUnitArea	Admin Unit Area	Area of the administrative geography in square km (sq km)	Double	false
SHAPE_Area		Double	Double	false
AgeGroup_0to4_Female	Female Aged 0-4	Total females in age group 0-4	Long Integer	true
AgeGroup_0to4_Male	Male Aged 0-4	Total males in age group 0-4	Long Integer	true
AgeGroup_0to4_Total	Total Aged 0-4	Total population in age group 0-4	Long Integer	true
AgeGroup_5to14_Female	Female Aged 5-14	Total females in age group 5-14	Long Integer	true
AgeGroup_5to14_Male	Male Aged 5-14	Total males in age group 5-14	Long Integer	true
AgeGroup_5to14_Total	Total Aged 5-14	Total population in age group 5-14	Long Integer	true
AgeGroup_15to64_Female	Female Population aged 15-64	Total females in age group 15-64	Long Integer	true
AgeGroup_15to64_Male	Male Population aged 15-64	Total males in age group 15-64	Long Integer	true
AgeGroup_15to64_Total	Total Population aged 15-64	Total population in age group 15-64	Long Integer	true
AgeGroup_65Plus_Female	Female Population Aged 65 Plus	Total females aged 65 plus	Long Integer	true
AgeGroup_65Plus_Male	Male Aged 65 Plus	Total males aged 65 plus	Long Integer	true
AgeGroup_65Plus_Total	Total Aged 65 Plus	Total population aged 65 plus	Long Integer	true
Total_Female_Population	Total Female Population	Total female population	Long Integer	true
Total_Male_Population	Total Male Population	Total male population	Long Integer	true
Total_Population	Total Population	Total population	Long Integer	true
PopulationDensity	Population Density	Population density	Double	true

District Feature Class				
Field	Alias	Description	Type	Nullable
GeoID		Global geography ID. This is a combination of province ID (pp) plus the district ID (ddd)-ppddd).	String (5)	false
GlobalID	Global ID	GUID identifier used by system for creation of relationship classes	GlobalID	false
OBJECTID		Object ID	OID	false
ProvinceID	Province ID/Code	Province ID. This is a 2 digit string Identifier (pp).	String (2)	false
DistrictID	District ID/Code	District ID. This is a 3 digit string (ddd).	String (3)	false
DistrictName	District Name	District name	String (250)	false
DistrictAbbr	District Abbreviation	District abbreviation 2 or 3 characters	String (3)	true
DistrictType	District Type	District Type such as County, Municipio, Parish etc	String (25)	true
SHAPE			Geometry	false
AdminUnitArea	Admin Unit Area	Area of the administrative geography in square km (sq km)	Double	false
AgeGroup_0to4_Female	Female Population Aged 0-4	Total females in age group 0-4	Long Integer	true
AgeGroup_0to4_Male	Male Population Aged 0-4	Total males in age group 0-4	Long Integer	true
AgeGroup_0to4_Total	Total Population Aged 0-4	Total population in age group 0-4	Long Integer	true
AgeGroup_5to14_Female	Female Population Aged 5-14	Total females in age group 5-14	Long Integer	true
AgeGroup_5to14_Male	Male Population Aged 5-14	Total males in age group 5-14	Long Integer	true
AgeGroup_5to14_Total	Total Population Aged 5-14	Total population in age group 5-14	Long Integer	true
AgeGroup_15to64_Female	Female Population Aged 15-64	Total females in age group 15-64	Long Integer	true
AgeGroup_15to64_Male	Male Population Aged 15-64	Total male population in age group 15-64	Long Integer	true
AgeGroup_15to64_Total	Total Population Aged 15-64	Total population in age group 15-64	Long Integer	true
AgeGroup_65Plus_Female	Female Population Aged 65 Plus	Total female population aged 65 plus	Long Integer	true
AgeGroup_65Plus_Male	Male Population Aged 65 Plus	Total male population aged 65 plus	Long Integer	true
AgeGroup_65Plus_Total	Total Population Aged 65 Plus	Total population aged 65 plus	Long Integer	true
Total_Female_Population	Total Female Population	Total female population	Long Integer	true
Total_Male_Population	Total Male Population	Total male population	Long Integer	true
Total_Population	Total Population	Total population	Long Integer	true
PopulationDensity	Population Density	Population density	Double	true

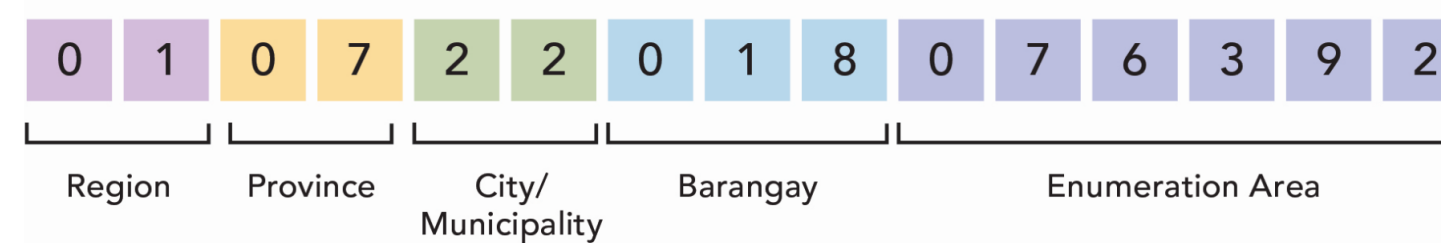
Municipality Feature Class				
Field	Alias	Description	Type	Nullable
GeoID		Global Geography ID. This is a combination of Province ID + District ID + Municipality ID- (ppdddmmmm).	String (9)	false
GlobalID	Global ID	GUID identifier used by system for creation of relationship classes	GlobalID	false
OBJECTID		Object ID	OID	false
ProvinceID	Province ID/Code	Province ID. This is a 2 digit string Identifier (pp).	String (2)	false
DistrictID	District ID/Code	District ID. This is a 3 digit string (ddd).	String (3)	false
MunicipalityID	Municipality ID/Code	Municipality ID. This is a 4 digit string identifier of the municipality (mmmm).	String (4)	false
MunicipalityName	Municipality Name	Municipality Name	String (250)	false
MunicipalityType	Municipality Type	Municipality Type such as Township, Village, City, Incorporated Places, Borough, Hamlet etc	String (50)	true
SHAPE			Geometry	false
AdminUnitArea	Admin Unit Area	Area of the administrative geography in square km (sq km)	Double	false
AgeGroup_0to4_Female	Female Population Aged 0-4	Total females in age group 0-4	Long Integer	true
AgeGroup_0to4_Male	Male Population Aged 0-4	Total males in age group 0-4	Long Integer	true
AgeGroup_0to4_Total	Total Population Aged 0-4	Total population in age group 0-4	Long Integer	true
AgeGroup_5to14_Female	Female Population Aged 5-14	Total females in age group 5-14	Long Integer	true
AgeGroup_5to14_Male	Male Population Aged 5-14	Total males in age group 5-14	Long Integer	true
AgeGroup_5to14_Total	Total Population Aged 5-14	Total population in age group 5-14	Long Integer	true
AgeGroup_15to64_Female	Female Population Aged 15-64	Total females in age group 15-64	Long Integer	true
AgeGroup_15to64_Male	Male Population Aged 15-64	Total male population in age group 15-64	Long Integer	true
AgeGroup_15to64_Total	Total Population Aged 15-64	Total population in age group 15-64	Long Integer	true
AgeGroup_65Plus_Female	Female Population Aged 65 Plus	Total female population aged 65 plus	Long Integer	true
AgeGroup_65Plus_Male	Male Population Aged 65 Plus	Total male population aged 65 plus	Long Integer	true
AgeGroup_65Plus_Total	Total Population Aged 65 Plus	Total population aged 65 plus	Long Integer	true
Total_Female_Population	Total Female Population	Total female population	Long Integer	true
Total_Male_Population	Total Male Population	Total male population	Long Integer	true
Total_Population	Total Population	Total population	Long Integer	true
PopulationDensity	Population Density	Population density	Double	true

EnumerationArea Feature Class				
Field	Alias	Description	Type	Nullable
GeoID		Global Geography ID. This is a combination of Province ID + District ID + Municipality ID + Enumeration ID- (ppdddmmmmeee).	String (12)	false
GlobalID	Global ID	GUID identifier used by system for creation of relationship classes	GlobalID	false
OBJECTID		Object ID	OID	false
ProvinceID	Province ID/Code	Province ID. This is a 2 digit string Identifier (pp).	String (2)	false
DistrictID	District ID/Code	District ID. This is a 3 digit string (ddd).	String (3)	true
MunicipalityID	Municipality ID/Code	Municipality ID. This is a 4 digit string identifier of the municipality (mmmm).	String (4)	true
EnumerationID	Enumeration ID/ Code	Enumeration Area code. This is a 3 digit string enumeration area identifier (eee).	String (3)	false
EnumerationAreaName	Enumeration Area Name	Enumeration Area Name (if applicable)	String (250)	true
SHAPE			Geometry	false
AdminUnitArea	Admin Unit Area	Area of the administrative geography in square km (sq km)	Double	false
AgeGroup_0to4_Female	Female Population Aged 0-4	Total females in age group 0-4	Long Integer	true
AgeGroup_0to4_Male	Male Population Aged 0-4	Total males in age group 0-4	Long Integer	true
AgeGroup_0to4_Total	Total Population Aged 0-4	Total population in age group 0-4	Long Integer	true
AgeGroup_5to14_Female	Female Population Aged 5-14	Total females in age group 5-14	Long Integer	true
AgeGroup_5to14_Male	Male Population Aged 5-14	Total males in age group 5-14	Long Integer	true
AgeGroup_5to14_Total	Total Population Aged 5-14	Total population in age group 5-14	Long Integer	true
AgeGroup_15to64_Female	Female Population Aged 15-64	Total females in age group 15-64	Long Integer	true
AgeGroup_15to64_Male	Male Population Aged 15-64	Total male population in age group 15-64	Long Integer	true
AgeGroup_15to64_Total	Total Population Aged 15-64	Total population in age group 15-64	Long Integer	true
AgeGroup_65Plus_Female	Female Population Aged 65 Plus	Total female population aged 65 plus	Long Integer	true
AgeGroup_65Plus_Male	Male Population Aged 65 Plus	Total male population aged 65 plus	Long Integer	true
AgeGroup_65Plus_Total	Total Population Aged 65 Plus	Total population aged 65 plus	Long Integer	true
Total_Female_Population	Total Female Population	Total female population	Long Integer	true
Total_Male_Population	Total Male Population	Total male population	Long Integer	true
Total_Population	Total Population	Total population	Long Integer	true
PopulationDensity	Population Density	Population density	Double	true

This is an example of how PSA in the Philippines numbered geographic units to support its census.

- Region (2 digit) 0, 1
- Province (2 digit) 0, 7
- City/Municipality (2 digit) 2, 2
- Barangay (3 digit) 0, 1, 8
- Enumeration Area Number 0, 7, 6, 3, 9, 2

Geographic units are numbered at each level of the administrative hierarchy—usually leaving gaps between the numbers to allow for future insertion of newly created zones at that level.



**Margin of Error (MOE):** MOE statistics are often calculated for each field and could be added to the attribute table as needed. Use a standard naming convention such as [field\_name]\_MOE.

**Adding geographies to the nested hierarchy:** Countries can add additional nested geographies as additional layers. Those layers should inherit the IDs of all geographies that are above them in the hierarchy and have a similar data schema to the layers shown here.

**Adding geographies outside the nested hierarchy:** Some geographies, such as Electoral Districts, Places, Metropolitan Areas etc. may be needed for dissemination purposes but are not within the nested geographies. They should be documented in a similar way with the attributes following the same naming conventions.

**If Administrative Boundaries** are not available, they can be replaced with Centroid Points.

## Shape Type

Polygon