

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

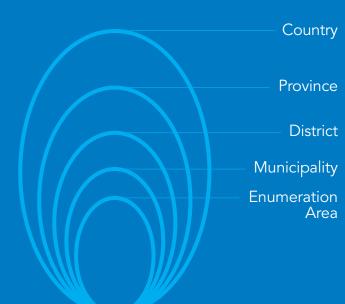
Province Feature Class

District
Feature Class

Municipality Feature Class

EnumerationArea Feature Class

Census and Administrative Hierarchy



Shape Type



Polygon

Trovince reactive class						
This feature class represents admin level 1 geographies as defined by the United Nations (UN), for example, States in the US and India, Regions in Italy.					This feature class re defined by the UN, in Austria and Bangl	
Shape Type Polygon Alias Name Province						Shape Type Polygo
Field	Alias	Description	Туре	Nullable		Field
GeoID		Global geography ID. This will be same as the Province ID (pp).	String (2)	false		GeolD
GlobalID	Global ID	GUID identifier used by system for creation of relationship classes	GlobalID	false		GlobalID
OBJECTID		Object ID	OID	false		OBJECTID
ProvinceID	Province ID/Code	Province ID. This is a 2 character string identifier.	String (2)	false		ProvinceID
ProvinceName	Province Name	Province name	String (250)	false		DistrictID
ProvinceAbbr	Province Abbreviation	Province abbreviation, 2 or 3 characters	String (3)	true		DistrictName
SHAPE			Geometry	false		DistrictAbbr
AdminUnitArea	Admin Unit Area	Area of the administrative geography in square km (sq km)	Double	false	Ę	DistrictType
SHAPE_Area		Double	Double	false	A	SHAPE
AgeGroup_0to4_Female	Female Aged 0-4	Total females in age group 0-4	Long Integer	true		AdminUnitArea
AgeGroup_0to4_Male	Male Aged 0-4	Total males in age group 0-4	Long Integer	true		A C 0 4 5 1
AgeGroup_0to4_Total	Total Aged 0-4	Total population in age group 0-4	Long Integer	true		AgeGroup_0to4_Female AgeGroup_0to4_Male
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_0to4_Total AgeGroup_5to14_Femal
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_5to14_Male AgeGroup_5to14_Total
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_15to64_Fema AgeGroup_15to64_Male
AgeGroup_65Plus_Female	Female Population Aged 65 Plus	Total females aged 65 plus	Long Integer	true	/	AgeGroup_15to64_Total
AgeGroup_65Plus_Male	Male Aged 65 Plus	Total males aged 65 plus	Long Integer	true		AgeGroup_65Plus_Fema
AgeGroup_65Plus_Total	Total Aged 65 Plus	Total population aged 65 plus	Long Integer	true		AgeGroup_65Plus_Male
Total_Female_Population	Total Female Population	Total female population	Long Integer	true		· ·
Total_Male_Population	Total Male Population	Total male population	Long Integer	true	1/	AgeGroup_65Plus_Total Total_Female_Population
Total_Population	Total Population	Total population	Long Integer	true		Total_Male_Population
PopulationDonsity	Population Donsity	Population donsity	Doublo	truo		opalation

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	District Feature						
This feature class represents admin level 2 geographies as defined by the UN, for example, Counties in the US and Districts in Austria and Bangladesh.							
	Shape Type Polygon	Alias Name Dis	trict				
	Field	Alias	Description	Туре	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		
	T. F. D.	Total Female	Tabel famoula () 1 (Long			

1	Municipality Fe	eature Class					
	This feature class represents admin level 3 geographies as defined by the UN, for example, Comunas in Chile, Counties in China, Municipios in Dominican Republic, Postcodes in many other countries.						
	Shape Type Polygon	Alias Name Mu	ınicipality				
	Field	Alias	Description	Туре	Nullal		
	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		
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:numera	tionArea	Feature	Class
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This feature class represents Enumeration Areas as defined by the country Statistical Agency for its field data collection: Basic Collection Unit (BCU) in

	Statistical Agency for its field data collection: Basic Collection Unit (BCU) in US, Enumeration Areas in Mozambique and Philippines.					
	Shape Type Polygon	Alias Name End	umeration Area			
able	Field	Alias	Description	Туре	Nullable	
e	GeoID		Global Geography ID. This is a combination of Province ID + District ID + Municipality ID + Enumeration ID- (ppdddmmmmmeee).	String (12)	false	
e	GlobalID	Global ID	GUID identifier used by system for creation of relationship classes	GlobalID	false	
9	OBJECTID		Object ID	OID	false	
9	ProvinceID	Province ID/Code	Province ID. This is a 2 digit string Identifier (pp).	String (2)	false	
9	DistrictID	District ID/Code	District ID. This is a 3 digit string (ddd).	String (3)	true	
e	MunicipalityID	Municipality ID/Code	Municipality ID. This is a 4 digit string identifier of the municipality (mmmm).	String (4)	true	
Э	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	
9	SHAPE			Geometry	false	
e	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.

Population Density Population density

Province Feature Class

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 betwen the numbers to allow for future insertion of newly created zones at that level.

Total_Population

PopulationDensity

Total Female

Total Population

Population Density Population density

Total female population

Total male population

Double

Total_Population

Population Density

0 1 0 7 2 2 0 1 8 0 7 6 3 9

Region Province City/ Barangay Enumeration Area

Municipality

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.