

THE GEOGRAPHY AND ROLE OF PUBLIC JURISDICTIONS IN THE U.S.A.

A description of public entity types in the United States of America
and their geographic extents, legal bases, and programmatic
responsibilities

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PLANGRAPHICS

PREFACE

This publication is a tutorial characterizing the nature of public entities in the United States. It is intended to be a reference guide for any professional who seeks to understand the interesting and complex fabric of governments and public agencies that operate in the United States.

The term “public entity” refers to governmental bodies, certain types of quasi-governmental organizations, and special districts with official public mandates for operation. This paper focuses on non-federal public entities that operate within the geographic boundaries of the United States of America. The authors hope to provide clear answers to the following questions:

- What different types of public entities exist in the United States?
- What are the formal mandates for the existence and operation of these entities?
- What are the regional variations in the public entity “fabric” across the nation?
- What is the primary role and business of these public entities?

This publication is descriptive in nature, and no attempt has been made to carry out an analysis of functions, policies, or interrelationships. The authors hope that it will contribute to a better understanding of public agency “jurisdictional geography” and roles.

1. DESCRIPTION OF STATE, TRIBAL, REGIONAL, AND LOCAL ENTITIES

Different levels of government and a variety of independently operating districts characterize the political jurisdictional geography of the United States with authority granted by the U.S. or state constitutions, federal or state law, or other formal legal vehicles.

The generic term “public entity” for the purposes of this paper, is defined as:

“A governmental jurisdiction, formally created political subdivision, or an independently operating district or regional authority which has formally granted powers and/or service responsibility for a defined geographic area.”

The federal-state-local hierarchy largely defines governmental authority and jurisdiction in the U.S. The public entities described in this report encompass states and the local government jurisdictions (counties, cities, towns, etc.) that have been granted a formal legal status by states or counties. In some parts of the country, native tribal groups have retained levels of political autonomy and governmental authority over specific geographic areas. In addition, a large number of regional authorities and districts (operating independently or semi-independently from governmental jurisdictions) have been created with formally assigned programmatic roles and powers over specific geographic areas for regulatory, economic, planning, management, or service delivery purposes. These special districts and authorities usually operate within the boundaries of a specific state but sometimes cross state boundaries.

The full domain of governmental and quasi-governmental bodies and jurisdictions at the state, tribal, regional, and local level is referred to in this report as “STRL Public Entities.”

The authors identified the following five categories of STRL entities—1) tribal governments, 2) interstate or multiple state agencies, 3) states, commonwealths, and trust territories, 4) regional agencies and special districts, and 5) local governments. The jurisdictional complexity of public organizations in the United States is revealed in the following table showing a total of 18 types into which the five major jurisdictional categories are divided.

Table 1: Public Entity Types

TG: Tribal Governments	TG1: Tribal Nations TG2: Alaskan Native Villages
ST: States, Commonwealths, and Trust Territories	ST1: States and Commonwealths ST2: District of Columbia ST3: Commonwealth/Trust Territories
LG: Local Governments	LG1: County LG2: County-type Areas w/o County Gov't. (includes consolidated metro governments) LG3: Municipal Government LG4: Township Government
IM: Interstate or Multi-State Agencies	IM1: Commissions IM2: Compacts
RG: Regional Agencies and Special Districts	RG1: Econ. Development Agencies, Districts, Authorities RG2: Transportation Service Districts/Authorities RG3: Planning and Zoning Commissions/Agencies RG4: Natural Resources Districts and Authorities RG5: Utility Districts and Authorities RG6: Public School Districts RG7: Other Regional Authorities and Service Districts

A considerable variation of STRL public entities types exists in the United States. To illustrate the complexity and variation, some examples of public entities in the states of New York and Indiana are presented in Table 2. When looked at from a national perspective, the range of STRL entities presents a fairly complex fabric of nested or overlapping geographies with legal and administrative foundations, business requirements, and geographic data needs that vary considerably from region to region. In some cases, defining the boundary of these public entities is difficult—local government boundaries are not always well-delineated, cities can cross county boundaries, and regional agency boundaries often have no direct relationship with the boundaries of cities and counties.

Table 2: Levels of Public Entity Jurisdictions and Examples for Two States

Type of Public Entity*	State of New York	State of Indiana
TG: Tribal Governments	<ul style="list-style-type: none"> • Cayuga, Seneca, and Oneida Indian nations governed by tribal councils (formally recognized by federal and state government) 	<ul style="list-style-type: none"> • Miami and Shawnee Nations in the process of being organized
ST: States, Commonwealths, and Trust Territories	<ul style="list-style-type: none"> • State government 	<ul style="list-style-type: none"> • State government
LG: Local Governments—County	<ul style="list-style-type: none"> • County governments: Total of 63; includes five NYC counties that have special municipal status as Boroughs 	<ul style="list-style-type: none"> • County governments (total of 92)
LG: Local Governments—Township, Municipality	<ul style="list-style-type: none"> • Town governments • City governments • Village governments 	<ul style="list-style-type: none"> • Township governments • Town governments • City governments
IM: Interstate or Multi-State Agencies	<ul style="list-style-type: none"> • NY-NJ Port Authority 	<ul style="list-style-type: none"> • Ohio River Basin Commission (established by the Federal Water Resources Planning Act of 1965) • Ohio-Kentucky-Indiana Regional Council
RG: Regional Agencies and Special Districts	<ul style="list-style-type: none"> • Regional Planning Commissions • Regional Planning and Development Boards • Metropolitan Planning Councils • New York Power Authority • Many independent school districts crossing municipal, town, and sometimes county boundaries 	<ul style="list-style-type: none"> • Metropolitan Planning Commissions • Regional Planning Councils

*Some states recognize “hamlets” or “unincorporated places”. These are named settled areas which are not incorporated, may not have fixed boundaries, and which do not have formal governmental jurisdictional authority.

Table 3 provides a summary description of the 18 public entity types, their legal basis, and governance structure.

Table 3: Major Public Entity Types in the United States

Public Entity/ Jurisdiction Type ¹	Description	Legal Basis	Governance Structure
TG: Tribal Governments			
TG1: Tribal Nations	Includes independent Tribal governments, e.g., Saginaw Chippewa Indian tribe, Navaho tribe, etc.	Federal- and State-Granted Sovereignty, Treaty	Chief, nation, tribal council, or governing body. All can be selected through election or consensus by tribal members.
TG2: Alaskan Native Villages	Includes Alaskan tribal corporations and villages.	Federal- and State-Granted Sovereignty	Corporations governed by a Board of Directors elected by shareholders. President selected by Board. May have an appointed staff.
IM: Interstate or Multi-State Agencies			
IM1: Commissions	Interstate commissions can address a wide range of issues, ranging from economic development to environmental quality. Examples include the Appalachian Regional Commission, the Great Lakes Commission, and the Ohio-Kentucky-Indiana Regional Council of Governments.	Federal Law, State Law	Appointed Commissioners or Governing Board. Some may have members designated by state or federal statute. An Executive Director may be hired by members or appointed.
IM2: Compacts	Compact agencies involve interstate agreements approved by the U.S. Congress. Examples include the Breaks Interstate Park Commission, the Delaware River Basin Commission, ORSANCO, the Multistate Tax Commission, the Lake Tahoe Regional Planning Commission, the Waterfront Commission of New York Harbor, etc.	State Law, Federal Law, Court Decree	Membership is usually established by a creation statute. Actual membership appointments may vary by Compact and participating parties. An Executive Director may be hired or appointed.
ST: States, Commonwealths, and Trust Territories			
ST1: States	50 States (including the Commonwealths—Kentucky, Massachusetts, Pennsylvania, and Virginia).	State Constitution	Elected State Legislature and Governor, with Governor serving as Chief Executive.
ST2: District of Columbia	The District of Columbia is considered to be a State equivalent.	Federal Constitution, Federal Law	A District Council and a Mayor are elected separately. Both appoint or hire staff.
ST3: Commonwealth/Trust Territories	American Samoa, Guam, Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands. Also includes autonomous republics and entities of the former U.S. Trust Territories of the Pacific Islands (TTPI) maintaining free association with the U.S. (e.g., Federated States of Micronesia, Republic of the Marshall Islands).	Congressional Compact or Other Federal Vehicle	Governor may be elected or appointed. Legislative bodies are usually elected.
RG: Regional Agencies and Special Districts: Regional agencies and special districts have publicly mandated missions and authorities over a specific geographic area that normally encompasses or crosses over the boundaries of multiple governmental jurisdictions. They provide specific single and multiple services or support that may not be performed by general purpose local governments or states. They are organized as separate entities often with independent governing boards, have government-like character, and possess substantial autonomy.			
RG1: Economic Development Agencies, Districts and Authorities	Examples include traditional industrial and economic development; redevelopment or renewal; and investment agencies, districts, and authorities. Enterprise zones are also covered. In addition, the category includes sports, stadium, civic center, auditorium, and resort and tourism districts and financing authorities.	State Law, Sub-state Agreements, Local Statute	Governing body typically appointed but may be elected. An Administrator or Manager may be appointed or hired by Directors.

Public Entity/ Jurisdiction Type ¹	Description	Legal Basis	Governance Structure
RG2: Transportation Service Districts and Authorities	Includes public transit districts, mass transportation authorities, road and highway districts, parking improvement areas, parkway and toll road authorities. Other examples range from bridge and tunnel authorities to port/navigation/ferry and airport authorities and districts.	State Law, Sub-state Agreements, Local Statute	Board members may be elected or appointed. A Director is typically hired or appointed.
RG3: Planning and Zoning Commissions and Agencies	Examples from different states include Councils of Governments, Regional Planning Councils, Area Development Districts, Metropolitan Planning Organizations, and Metropolitan Planning Commissions.	State Law, Sub-state Agreements, Local Statute	Members are usually appointed by governed jurisdictions although some may be elected. A Director may be appointed, or a body may rely on assistance from participating jurisdictions.
RG4: Natural Resources Districts and Authorities	Examples include agricultural districts, soil and land conservation and reclamation districts, natural resources conservation districts, water conservation and management districts, irrigation districts, solid waste and recycling districts and authorities, river authorities and boards, watershed districts, pollution control districts and agencies, flood control districts, and others. Some obscure types of districts (e.g., predatory animal control district, pure sugar beet seed district) fall under this category.	State Law, Sub-state Agreements, Local Statute	Members may be elected or appointed by the Governor. A Director may be hired or appointed by a Board or State authority.
RG5: Utility Districts and Authorities	Examples include municipal power districts corporations, agencies, and authorities; hydroelectric resource districts and authorities, geothermal heating districts, natural gas authorities, water and sewer districts, drainage and stormwater districts, municipal utility districts that may provide several services, communications districts, sanitary districts, and general public service districts and boards.	State Law, Sub-state Agreements, Local Statute	Commissioners, Directors, and Board members may be appointed or elected. Larger entities normally appoint a Director or Manager.
RG6: School Districts	This category includes only independent school districts that operate independently from local governments.	State Law	School Board may be elected or appointed. Superintendent or District Administrator usually hired by a Board with possible oversight by a State Education Agency.
RG7: Other Regional and Service Districts	Many types of independent, publicly mandated service districts in different parts of the U.S. have a designated planning, land management, or service focus. Some examples include housing improvement districts, health and hospital districts, library districts, cultural/historic landmark districts or authorities, emergency service districts, weather modification districts, fire protection districts, geologic hazards abatement districts, and districts or agencies that are authorized to conduct multiple functions.	State Law, Sub-state Agreements, Local Statute	Boards may be appointed or elected. If staff exists, it is normally headed by a Director selected by the Governing Board.
LG: Local Governments			
LG1: County	This category includes legally established and recognized units of government that correspond to the geographical boundaries of counties or similar units but that may be known by different names. Includes "Parish" (LA), "Borough" (AK), and "Municipios" (PR).	State Law, Charter	Elected County Council, Commission, or Magisterial Board. Chief Executive is often the County Judge or equivalent title. Administrator (e.g., County Manager) may be elected or appointed.

Public Entity/ Jurisdiction Type ¹	Description	Legal Basis	Governance Structure
LG2: County-type Areas without County Government	This category includes: a) County areas with legally designated city-county consolidated governments (e.g., Nashville-Davidson Metro Govt., City and County of Denver), b) areas having certain types of county offices but as part of another government (e.g., Kings County-NYC Borough of Brooklyn, Philadelphia), c) unorganized areas designated as counties but without county government (e.g., eight Connecticut and five Rhode Island counties).	State Law	Governing body can be independent or part of a larger government unit. Representatives are usually elected. May have separate staff or rely on associated government (e.g., City).
LG3: Municipal Government	Municipal Government is defined to include incorporated cities, boroughs (not including Alaska boroughs), towns (except in the six New England States and in Minnesota, New York, and Wisconsin), and villages. This category includes cities in Virginia that are jurisdictionally independent of the surrounding county.	State Constitution, Legislative Act, Charter, Incorporation	Elected Council, Commission, or Board. Chief executive may be elected (e.g., Mayor) or appointed (e.g., City Manager).
LG4: Township Government ²	This category includes incorporated townships (e.g., as in New Jersey and most Midwest states); governmental units officially designated as "Towns" in the six New England states, New York, and Wisconsin; some "Plantations" in Maine; and "Locations" in New Hampshire. "Township" and "Town" are used interchangeably in Minnesota.	State Constitution, Legislative Act, Charter	Supervisory Board usually elected, but members may be appointed in some locations. Larger units can have independent staff, or supervisors may rely on a larger jurisdiction (e.g., County).

¹Some states recognize "hamlets" or "unincorporated places". These are named settled areas which are not incorporated, may not have fixed boundaries, and which do not have formal governmental jurisdictional authority.

²The term "township" encompasses only incorporated civil townships with a governmental role and should not be confused with survey townships of the Public Land Survey System (PLSS). However, the boundaries of these Civil Townships in PLSS states closely follow the PLSS Townships.

2. PUBLIC AGENCY PROGRAM AREAS AND BUSINESS PROCESSES

STRL entities each have a specific set of responsibilities that span a large range of functions and services provided for citizens, businesses, visitors, and organizations and their constituencies. To characterize these functions and services, the authors have identified a set of 27 program areas explained below. They are adapted from Census Bureau categories (see U.S. Census Bureau (2001a, 2001b)) with some modification based on the authors' understanding of public agency missions and mandates and the review of other studies. These program areas are organized under "General Government" and "Utility/Infrastructure" categories. The program areas are explained below.

General Government Program Areas

- **Economic Development and Investment:** Identification, creation, and promotion of opportunities for public and private economic investment and development.
- **Land Use Planning and Management:** Includes comprehensive, long-term land use planning conducted by state and local governments to guide and manage growth, as well as short-term local planning and zoning activities that include review and approval of development proposals and special land use studies.
- **Housing and Community Development:** Involvement in the construction and operation of housing, urban development, and redevelopment projects, and other activities to promote or aid housing and community development. Includes permitting and code enforcement associated with these activities, grant development and management, financing and promotional activities, etc.
- **Public Welfare:** Planning, management, and operation of public welfare and social programs. Includes survey and monitoring of public needs, administration of public assistance and benefits programs, employment augmentation, and the development and operation of welfare institutions owned and operated by a government for the benefit of needy persons.
- **Public Health and Hospitals:** Out-patient health services, other than hospital care, including public health administration; research and education; categorical health programs; treatment and immunization clinics; nursing; environmental health activities such as air and water pollution control; ambulance service if provided separately from fire protection services; and other general public health activities such as mosquito abatement. Also includes financing, construction, and operation of nursing homes, as well as financing, construction, acquisition, maintenance, or operation of hospital facilities; provision of hospital care; and support of public or private hospitals.
- **Education and Libraries:** Finance and construction of educational facilities and the actual operations of school systems. Establishment and operation of public libraries and support of privately operated libraries.

- **Public Safety and Emergency Preparedness:** Preservation of law and order; protection of persons and property from illegal acts; and the prevention, control, investigation, and reduction of crime. Operation of correctional facilities and programs for all statuses of offenders. Firefighting operations, including prevention, avoidance, and suppression of fires. Provision of ambulance, medical, rescue, or auxiliary services provided by fire protection agencies. Development and implementation of programs to respond to all types of natural and man-caused disasters and emergency incidents. This program area covers all emergency planning, preparedness, response, and mitigation activities including security operations falling under federal and state Homeland Security provisions.
- **Natural Resources:** Planning and regulatory programs for the management, protection, and development of natural resources such as water, soil, wetlands, forests, minerals, and wildlife. Includes flood control, forestry and forest fire protection, and fish and wildlife programs. Environmental quality activities not related to water supply, wastewater treatment, stormwater management, and solid waste are covered, including, for example, protection of air quality, public lands, and wetlands; watershed management and protection; geological surveying and mapping; dam and reservoir safety; and public education programs.
- **Agriculture:** Development, improvement, promotion, and conservation of natural resources for agricultural purposes; and the regulation and inspection of agricultural products and establishments.
- **Parks and Recreation:** Provision and support of recreational and cultural-scientific facilities and activities, including golf courses, playfields, playgrounds, public beaches, swimming pools, tennis courts, parks, auditoriums, stadiums, auto camps, recreation piers, marinas, botanical gardens, galleries, museums, and zoos. Also includes building and operation of convention centers and exhibition halls.
- **Property and Taxation:** Establishment of geodetic control systems for surveying, development of information on real property location and characteristics and maintenance of property record systems, determination of property tax assessments and collections, and all other tax programs (e.g., income, personal property, corporate, etc.).
- **Elections:** Determining election unit boundaries and all activities associated with conducting public elections, including registering and tracking voters.
- **Government Finance, Judicial, and Legislative:** Courts (criminal and civil) and activities associated with courts, legal services, and legal counseling of indigent or other needy persons. Legislative activities involved in the making, enacting, and repeal of laws. General accounting, auditing, budgeting, purchasing, custody of funds, and other finance activities for agencies and

officials. General government-wide executive, administrative, and staff service efforts other than financial, judicial, legal, and legislative activities.

- **Facility/Property/Asset Management:** Acquisition, tracking, maintenance, and management of real property and capital equipment, including constructing and operating general public buildings such as courthouses, city halls or fiscal courts, office buildings, and annexes. Another important aspect of facility/property/asset management is GASB 34 reporting. Many reporting entities in the U.S. are spatially enabling their GASB 34 reporting.
- **Miscellaneous Other:** Activities not applicable to other general government functions, including activities ranging from inspection programs for elevators to operating cemeteries.

Utility and Infrastructure Program Areas

- **Highways and Parking Facilities:** Construction, maintenance, and operation of highways, streets, and related structures, including toll highways, bridges, tunnels, ferries, street lighting, and snow and ice removal. Construction, purchase, maintenance, and operation of public-use parking lots, garages, parking meters, and other distinctive parking facilities on a commercial basis.
- **Transit:** Construction, maintenance, operation, and support of public mass transit systems—bus, commuter rail, light rail, or subway systems.
- **Air and Rail Transportation:** Construction, maintenance, operation, and support of airport facilities. Construction and operation of rail lines and systems.
- **Waterborne Transport:** Construction, maintenance, operation, and support of canals and other waterways, harbors, docks, wharves, and related marine terminal facilities.
- **Electric Power:** Operation and maintenance of electric power systems, including production or acquisition and distribution of electric power.
- **Gas Supply and Transmission:** Operation and maintenance of gas supply facilities and systems, including acquisition and distribution of natural gas.
- **Telecommunications:** Operation, maintenance, and construction of public communications systems and networks, including radio, telephone, Internet, and cable services.
- **Solid Waste Management:** Street cleaning, solid waste collection and disposal, and provision of sanitary landfills.
- **Wastewater:** Provision of sanitary sewers and sewage disposal facilities and services.

- **Stormwater and Drainage:** Provision, maintenance, and operation of storm sewer systems and facilities and management of ditches and drainage from water runoff. Drainage of crop fields for production purposes is considered to be a part of agriculture.
- **Water Supply and Distribution:** Operation and maintenance of water supply systems, including acquisition and distribution of water to the general public or to other local governments for domestic or industrial use.
- **Irrigation, Reclamation, and Soil and Water Conservation:** Acquisition and distribution of water for irrigation of agricultural lands, reclamation of range and crop lands, and activities to conserve and manage soil and water resources.

NOTE: Readers may be interested in a similar but less inclusive breakdown of governmental programs defined in the *Federal Enterprise Model (FEA) Business Reference Model (BRM)* from the U.S. Office of Management and Budget (released in mid-2002). The BRM defines 35 internal and external “lines of business” under three broad “business areas.” The BRM applies to the Federal government and does not encompass all programs of STRL entities. The FEA also includes an application reference model (ARM) and Technical Reference Model (TRM) planned for release in 2003. See www.feapmo.gov.

Table 4 shows how the program areas above apply to the different STRL entities by assigning a relationship level of “primary” or “secondary” to each program area for each public entity type. A primary relationship means that the program area is very closely tied to the entity’s mission and is a central and essential part of the entity’s ongoing responsibility. A secondary relationship refers to cases where the program area plays a support or subordinate role and is not directly tied to the entity’s mission. A blank indicates no significant relationship.

Table 4: Program Area Responsibilities for Government and Public Entities

LEGEND: Indicates Primary Responsibility Indicates Secondary Responsibility		Government and Public Entity Program Areas*																										
		General Government															Utility/Infrastructure-related											
		Economic Development and Investment	Land Use Planning and Management	Housing and Community Development	Public Welfare	Health and Hospitals	Education and Libraries	Public Safety and Emergency Preparedness	Natural Resources	Agriculture	Parks, Cultural Resources, Recreation, Tourism	Property and Taxation	Elections	Government Finance, Judicial, and Legislative	Facility/Property/Asset Management	Miscellaneous Other	Highways and Parking Facilities	Transit	Air and Rail Transportation	Waterborne Transport	Electric Power and Distribution	Gas Supply and Distribution	Telecommunications	Solid Waste Management	Wastewater Collection and Treatment	Stormwater and Drainage	Water Supply and Distribution	Irrigation, Reclamation, Soil and Water Conservation
Governmental and Public Entity Types																												
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TG1: Tribal Nations																												
TG2: Alaskan Native Villages																												
IM: Interstate or Multi-State Agencies																												
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LG1: County																												
LG2: County-type Areas w/o County Gov't																												
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Several conclusions may be drawn from examination of Table 4:

- Tribal and state/commonwealth governments have a significant responsibility for the majority of general government program areas. State/commonwealth governments, in particular, are less often responsible for utility/infrastructure program areas since many of these are the primary responsibility of private utility companies or local governments.
- Interstate/Multi-state agencies have very specific roles in only a few program areas (e.g., economic development, natural resources, agriculture).
- Regional agencies are generally responsible for a limited number of program areas that are defined in the legal mandate that created the individual agency. Among the most frequent are utility service, economic development, natural resources, and highways.
- Local governments (particularly municipalities and counties) have primary responsibility for a wide range of general government and utility/ infrastructure. In fact, the only program areas in which municipality/county responsibility is uncommon are those utility supply and services that are more often run by private companies or cooperatives (e.g., electric power and distribution, gas supply and distribution, and telecommunications and waterborne transportation).

3. PUBLIC ENTITY LEGAL AUTHORITY BASIS

The number and diversity of public entities across the U.S. make it quite difficult to comprehensively categorize the legal basis for their existence. For each of the public entity types described above, one or more formal legal foundations exist on which they were originally created and under which they hold certain jurisdictional authority, provide services, and carry out business:

- Federal or state constitutional authority
- Charter for local government
- Federal or state statute
- Federal or state regulation or administrative rules
- Delegated authority (e.g., granted authority from federal government to state, tribal, or local entity)
- Local government ordinance or administrative rule
- Case law establishing precedents for action
- Judicial actions and orders

- Charter or official policy and mission statements defining the role and responsibility for regional agencies and public utilities
- Executive order from an elected or appointed official
- Official order or resolution from an elected or appointed governing body (e.g., city or county council, tribal council, regional agency or public utility governing board, elected school board)
- Official policies adopted by public agencies
- Contracts, interagency agreements, or official fee or funding programs for public services or programs.

In most cases, public entity programs and business processes will fall under at least two and often three or more of the mandates. For example, one unit of government may pursue a program like water pollution control after enacting its own local law to accept delegation of the program from a higher tier government entity. It may also pursue the water pollution control activity because financial assistance is available, the program enables growth and expansion, and customers pay the entity to deliver sewer service. A few examples of the more common mandates at the state, regional, or local level that drive the need for geographic data by STRL organizations include:

- State laws implementing U.S. Environmental Protection Agency programs such as air pollution control, drinking water and wastewater revolving funds, hazardous and solid waste, underground storage tanks, non-point source pollution, and water quality planning and watershed management
- State and local laws requiring the valuation of real property and equalization of assessments
- State and community public health laws and regulations requiring immunization prior to attending public school, authorizing tuberculosis prevention and control, and pursuing vector elimination
- State and local laws and policies to assist agricultural communities and silvicultural enterprises, including soil and water conservation, soil surveys, empowerment zones, forest management incentives, and rural development
- State, regional, and local transportation/transit planning and improvement statutes and ordinances
- County or local statutes and ordinances mandating comprehensive land use planning or zoning
- State and community laws governing mitigation of natural hazards, including community implementation of the National Flood Insurance Program

- Local funding authorization and financial assistance for moderate and low-income housing development
- Local ordinances and official policies (often approved by city or county councils) that define requirements for land development permitting (e.g., subdivision approval, building permits)
- Federal Communications Commission E911 regulations driving state regulations and policies for emergency response services
- Government Accounting Standards Board Statement #34 (GASB34) (a policy statement) which makes a strong case for improved inventory and monitoring of publicly owned infrastructure; GASB34, in some cases, is a basis for formal fiscal and infrastructure management policies in governmental jurisdictions
- State statutes creating coordinating bodies for geographic information management, e.g., the Kentucky Office of Geographic Information and the Geographic Information Advisory Council that is an advisor to the Chief Information Officer.

4. PUBLIC ENTITY BUSINESS PROCESSES

A business process is an activity or collection of related activities that responds to a program area need and generates a product, service, or some other measurable result for a particular “customer” or recipient. Many business processes in STRL organizations are geographic in nature. That is, they involve the collection, compilation, management, use, or distribution of geographically referenced data. For example, field inspections or inventories result in reports or compiled databases with geographically-referenced data, land use planning requires the generation of maps and analysis of geographic data to evaluate future impacts, and permitting processes are dependent on geographic information for permit application and approval.

The details of business processes are unique to specific agencies, but it is useful to define general business processes that apply more or less universally across all program areas and public entity types. The 27 general businesses processes that follow cover the majority of activities carried out by the STRLs in which geographic data plays a clearly recognizable role. This business process definition is based on the authors’ experience with more than 400 STRL organizations in all regions of the country and from a review of pertinent literature, including the Council of State Governments (2002), Kraybill and Lobao (2001), the National Association of Counties (2001), Greene (2000), Engle (1999), David *et al.* (1998), and Oakley (1994). Appendix A includes a description of these business processes.

4.1 General Business Processes

- BP1: Billing, Tax, Fee Management, and Collection
- BP2: Budget/Financial Analysis
- BP3: Business Activity Tracking
- BP4: Comprehensive Land Use Assessment and Planning
- BP5: Construction Project Planning and Design
- BP6: Cultural/Historical Resource Assessment
- BP7: Demand Modeling and Analysis
- BP8: Economic/Demographic Forecasting
- BP9: E-Government Services
- BP10: Emergency Response
- BP11: Emergency/Disaster Planning
- BP12: Environmental Regulation and Management
- BP13: Environmental/Natural Resource Inventory
- BP14: Facility Inventory and Tracking
- BP15: Health/Safety Permitting and Enforcement
- BP16: Incident/Complaint Tracking
- BP17: Land Development Inspection and Enforcement
- BP18: Land Development Review and Permitting
- BP19: Legal Analysis/Judicial Actions
- BP20: Property Valuation
- BP21: Public Information Preparation and Distribution
- BP22: Public Meetings/Hearings
- BP23: Public Service Planning and Delivery
- BP24: Site/Facility Maintenance Operations
- BP25: Site/Facility Maintenance Planning
- BP26: Special Engineering Analysis or Modeling
- BP27: Special Planning Studies

Table 5 compares these business processes to the public entity program areas described above. A *primary* responsibility means that the business process is frequently carried out and is an essential part of the program area. A *secondary* responsibility indicates that the business process is often part of the program area but plays a less critical role. This table provides a picture of the relative commonality or frequency of occurrence of business processes within different program areas.

Table 5: Business Process Relationships with Public Entity Program Areas

Geographic Business Process	Public Entity Program Areas																										
	General Government														Utility/Infrastructure-related												
	Economic Development and Investment	Housing and Community Development	Public Welfare	Health and Hospitals	Education and Libraries	Public Safety and Emergency Preparedness	Natural Resources	Agriculture	Parks, Cultural Resources, Recreation, Tourism	Property and Taxation	Elections	Government Finance, Judicial, and Legislative	Facility/Property/Asset Management	Miscellaneous Other	Highways and Parking Facilities	Transit	Air and Rail Transportation	Waterborne Transport	Electric Power and Distribution	Gas Supply and Distribution	Telecommunications	Solid Waste Management	Wastewater Collection and Treatment	Stormwater and Drainage	Water Supply and Distribution	Irrigation, Reclamation, and Soil and Water Conservation	
BP1: Billing, Tax, Fee Mgmt., and Collection																											
BP2: Budget/Financial Analysis																											
BP3:Business Activity Tracking																											
BP4:Comprehensive Land Use Assessment and Planning																											
BP5:Construction Proj. Planning and Design																											
BP6: Cultural/Historical Res. Assessment																											
BP7:Demand Modeling and Analysis																											
BP8: Economic/Demographic Forecasting																											
BP9: E-Government Services																											
BP10:Emergency Response																											
BP11:Emergency/Disaster Planning																											
BP12:Environ. Regulation and Mgmt.																											
BP13: Environ./Natural Resource Inventory																											
BP14: Facility Inventory and Tracking																											
BP15: Health/Safety Permitting and Enforce.																											
BP16: Incident/Complaint Tracking																											
BP17: Land Development Insp. and Enforce.																											
BP18: Land Development Rev. and Permitting																											
BP19: Legal Analysis/Judicial Actions																											
BP20: Property Valuation																											
BP21: Public Information Prep. and Distribution																											
BP22: Public Meetings/Hearings																											
BP23: Public Service Planning and Delivery																											
BP24: Site/Facility Maintenance Operations																											
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BP26: Special Engineering Analysis or Modeling																											
BP27: Special Planning Studies																											

APPENDIX A
DESCRIPTION OF GENERAL BUSINESS PROCESSES

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General Business Process	Description
BP1: Billing, Tax, Fee Management, and Collection	All functions concerned with a) setting and collection of fees for governmental services, b) analysis and setting of tax rates, including sales and property tax, c) collection of property taxes, d) analysis and establishment of special tax or special public fee zones, including enterprise zones, and e) setting of rates and collection of bills for utility or related services.
BP2: Budget/Financial Analysis	All activities involving the analysis of public agency expenditures, financial requirements, public accounting, and preparation and approval of public agency budgets (including all general fund, capital expenses, and special funds).
BP3: Business Activity Tracking	All tracking and monitoring of private business activity.
BP4: Comprehensive Land Use Assessment and Planning	Formally mandated and informal activities involving the development of plans to project and direct growth and land use. Includes all large- and small-scale land use inventory and mapping; formal statewide, county, or municipal comprehensive plan development; federal agency land use planning projects; or site-specific land use assessments and planning.
BP5: Construction Project Planning and Design	Preliminary and detailed planning and design work for the construction of buildings, roads, public utilities, and other structures. Includes all data gathering, field data collection, engineering analysis, and the preparation of preliminary and final engineering plans carried out by public organizations.
BP6: Cultural/Historical Resource Assessment	Inventory, analysis, and assessment of sites or structures with historical, cultural, or archaeological significance. Includes collection of information, compilation of maps and reports, and work leading to official designation of sites as nationally, statewide, or locally significant. Also includes assessment and evaluation work done in connection with land development projects.
BP7: Demand Modeling and Analysis	All activities carried out by public organizations that concern the projection of demand for commodities and services by the public or private sector to support planning, decision-making, or policy development. Some examples include: a) water consumption projections by a public utility, b) state or local transportation volume analysis, and c) analysis of future demand for recreational or educational services.
BP8: Economic/Demographic Forecasting	Any public agency functions involving the analysis and forecasting of future demographic or economic conditions or activity. May include formal modeling or informal predictions to support decision-making and public policy development.
BP9: E-Government Services	Programs and specific development work involving the design and development of public agency Web-based portals and Web-deployed applications for public services and transactions. This may include access to geographic information to support general inquiries, conduct standard transactions (permitting and licensing application), fee payment, sale of government products, and support for non-emergency services (e.g., 311 call centers).
BP10: Emergency Response	Activities that concern a public agency's response to an emergency event (police, fire, medical, environmental or natural disaster). Encompasses emergency call taking, dispatch of appropriate resources, support to responders, and reporting of the response activity.
BP11: Emergency/Disaster Planning	All work by public agencies that involve planning and coordination for emergencies of all types (police, fire, medical, environmental, or natural disaster). This includes the development of emergency plans, preparation for emergency response, crime analysis, allocation of resources for response, coordination of resources during emergencies, assessment of damage, and coordination of support or mitigation activities.
BP12: Environmental Regulation and Management	All activities concerned with the development of regulations and requirements for management and protection of the environment and natural resources (land, air, water) and for responding to regulations. Encompasses: a) all types of environmental impact assessments, b) environmental analyses associated with permit or land development plans, and c) development of plans or management practices for environmental protection.
BP13: Environmental/Natural Resource Inventory	All studies and functions involving the collection and compilation of data on conditions and quality of land, air, water, and biotic resources to support environmental management, decision-making, and policy development.

General Business Process	Description
BP14: Facility Inventory and Tracking	All activities involving the collection of information on the condition, quality, and status of public facilities and infrastructure (buildings, structures, roads, utilities). May include field data collection, standard inspection activities, and other means for facility information collection.
BP15: Health/Safety Permitting and Enforcement	Public organizational activities concerning the development of policies, regulations, and ordinances for health and safety, as well as executing these programs at the local, regional, or statewide level. This includes all permit review, inspection, and enforcement work for such programs as food services, septic systems, motor vehicle, mine safety, etc.
BP16: Incident/Complaint Tracking	All activities performed by public organizations for logging, identifying, and geographically tracking incidents and complaints. This includes such activities at the local, regional, or state level as: a) local complaint monitoring for public or utility services, b) public safety incident tracking, c) traffic incident tracking and mapping, and d) disease outbreak tracking.
BP17: Land Development Inspection and Enforcement	All monitoring, inspection, and related enforcement activity associated with land development permitting (BP18).
BP18: Land Development Review and Permitting	All public agency activities for the application, review, approval, and permitting of any land development activity. Some examples are: a) local subdivision, site plan, or building permit programs, b) local zoning and rezoning activities, c) special use permitting at the state or local level, d) mining permit programs, and e) water withdrawal permit programs.
BP19: Legal Analysis/Judicial Actions	Public agency legal analysis, court-ordered functions, and judicial activity involving the use of geographic information. This may include: a) special geographic information analysis in a public court case (e.g., environmental damage claims, traffic accident liability claims), b) legal analysis for land use or public development projects, c) criminal proceedings, and d) assessment of fines for violation of permit terms or regulation/ordinance.
BP20: Property Valuation	Includes: a) appraisal of real or personal property for property taxation at the local level (carried out by a local assessor or equivalent), b) appraisal of utilities for taxation at the local or state level, c) appraisal of public asset value, and d) special project-related land or property valuation associated with state or local projects (e.g., road widening or new construction). This also includes site evaluation and parcel map compilation work.
BP21: Public Information Preparation and Distribution	This business process encompasses all general public information distribution activities involving geographic data. It includes preparation of hardcopy materials, brochures, guidebooks, etc., for use by the public and information distribution via the Web.
BP22: Public Meetings/Hearings	Formal hearings or meetings with the public that involve the use of geographic data or derived products. Some examples at the state, regional, and local level include— a) local land use or zoning hearings, b) local commission or council meetings, c) public meetings associated with a state government program (e.g., environmental issues, construction projects), d) property assessment disputes, and e) school board public meetings.
BP23: Public Service Planning and Delivery	Analysis and planning work for determining required resources, resource distribution, and logistics associated with a service provided by a public agency. At the local government level, this may include such services as solid waste collection, health service provision, social service provision, etc. State government service programs include a range of health, education, and human services that require definition of service areas and allocation of resources.
BP24: Site/Facility Maintenance Operations	Activities associated with the ongoing maintenance, upkeep, and repair of public facilities (roads, utilities, sites, buildings, other structures). This includes work order management, assignment and dispatch of crews, and reporting/tracking of maintenance activity.
BP25: Site/Facility Maintenance Planning	Planning work associated with the upkeep and maintenance of public facilities and infrastructure (roads, utilities, sites, buildings, other structures). This includes capital project planning, maintenance scheduling, and related activities.
BP26: Special Engineering Analysis or Modeling	A range of special studies or analyses at the statewide, regional, or local level that use geographic data to support decision-making. Some examples include utility flow modeling to support design, special geophysical analysis for natural hazard assessment, and traffic flow and routing.
BP27: Special Planning Studies	Any special public agency information gathering, planning, or assessment projects or studies that are not part of other business processes.

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