

Stakeholder interests

Parcel data is used in many ways by many different people and organizations. Virtually every individual, community, and organization has some interest to be considered. The nine stakeholder types described earlier constitute the major groups identified in the study. The interests of these groups coincide with respect to their mutual desire for accuracy, timeliness, and consistency of parcel information. However, important differences exist among them regarding data sources and access methods, as well as cost and revenue considerations.

Table 4 shows both the areas of common agreement and the areas of divergence among these key stakeholder groups. All stakeholder types have a strong interest in high quality data, generally characterized as data that is factually accurate, up-to-date, and consistent from time to time and place to place.

Table 4. Stakeholders and their Interests									
Stakeholders		Interests							
Type	Examples								
Assessors		X	X	X		X			
County Real Property Tax Services		X	X	X	X				
Other County and Municipal Government Agencies	Emergency Response	X	X	X		X	X	X	X
	Planning	X	X	X		X	X	X	X
	Water Authority	X	X	X		X	X	X	X
State Agencies	Environment	X	X	X		X	X	X	X
	Homeland Security	X	X	X		X	X	X	X
	Transportation	X	X	X		X	X	X	X
	Real Property	X	X	X		X	X		
Private Companies	Data Reseller	X	X	X	X		X	X	
	Digital Map Conversion	X	X	X		X	X	X	X
	Engineering/Planning		X	X		X	X	X	X
	GIS Consultants	X	X	X		X	X	X	X
	Lien/ Tax Collector	X	X	X		X	X	X	X
	Realtor	X	X	X		X	X	X	X
	Utility	X	X	X		X	X	X	X
Non-profit Organizations	Environmental groups	X	X	X		X	X	X	X
	Planning organizations	X	X	X		X	X	X	X
	Research organizations	X	X	X		X	X	X	X
Community Groups		X	X	X		X	X	X	X

Property Owners		X	X	X		X	X	X	X
Property Occupants		X	X	X		X	X	X	X

Accuracy, timeliness, and consistency. These general agreements, however, mask a great deal of variation. The interviews demonstrated that accuracy, timeliness, and consistency are important to everyone, but at different levels and for different reasons. Some of these differences are illustrated below.

- An engineering firm is planning a residential subdivision. To this company, "accurate" means highly detailed survey grade information. By contrast, a town attempting to designate a rough boundary for a new municipal park in an area that has not changed ownership in decades would say an area bounded by certain streets is "accurate" for this purpose.
- A tax collection organization needs parcel data updates only when the final tax assessment roll comes out because their core mission is to collect delinquent taxes and the preliminary tax roles do not help them do their job. However, a realtor may need to know the current tax status of a property, how much the taxes are today, and who the taxes are paid to. This information could change daily depending on the number of homes the realtor is handling within a given time period. The difference in the frequency of the transaction (i.e., annual versus daily) determines how each user defines "timely."

Digital, on-line, and single point of access. Most stakeholders strongly prefer that parcel data be available in electronic format, online, from one authoritative or trusted source, and in a variety of formats, which they can select to meet their particular needs. These features add convenience, flexibility, and efficiency to information search, access, and use. They also add confidence that data is authentic and well-documented so it can be used in appropriate ways. These interests are typically less important or not shared by the organizations most likely to collect the basic data – assessors and county real property tax offices.

Revenue generation. The greatest conflict among stakeholders occurs over the question of parcel data as a source of revenue. Here, county real property tax offices and private sector data resellers have markedly different interests than those of all the other stakeholder types. The private sector re-sellers would not exist but for the opportunity to package and sell parcel information to a variety of customers. County RPTS offices are increasingly treating parcel data as a revenue source and charging a wide range of fees for county-level data, including tax maps, even to other government agencies. These fees appear to vary widely from place to place and even from situation to situation. By contrast, most municipal assessors, all state agencies, and nearly all public, private, and civic users endorse a philosophy that the data is a public resource and should be made readily available to requesters at no more than the cost of reproduction or distribution.

Issues associated with data collection and reporting

The value of parcel data begins to be built with the act of data collection. The study showed three issues associated with data collection that reduce this value from the very start: inconsistent numbering and indexing systems, inconsistent terminology used to describe key attributes, and factual errors introduced by inaccurate property transfer reports, and the inability of assessors to have complete access to privately owned property for appraisals.

All counties are required to have a parcel identification system which usually consists of a complex number denoting the section, block, and lot for a given parcel with respect to a historical land survey. However, counties and some municipalities can and do adopt different numbering and indexing systems and some systems work in such a way that the history of parcel sub-divisions cannot be traced by the use of the ID numbers. The lack of a uniform identification system statewide causes great difficulty for users who need to integrate data of different types, or match up parcels across the boundaries of different jurisdictions. Similarly, different municipalities and counties may use different terms to describe the same attribute leading to confusion about whether information from different jurisdictions is comparable.

In addition, the information that is reported about property sales is criticized by nearly every county and assessor. Most contend that buyers, sellers, and their attorneys pay little attention to the accuracy of the required report (the

RP5217) which is filed with the deed in the County Clerk's office. Because no enforcement mechanisms exist, these errors proliferate despite much work on the part of assessors and county RPTS staff to catch and correct them.

In addition, assessors report difficulty in obtaining complete and accurate property information because property owners can deny them access to buildings and other structures. In these cases, appraisals reflect the assessor's best judgment rather than direct, detailed observation of the property. Errors are therefore introduced into the property record from the earliest point.

Issues associated with data use

As illustrated throughout this report, parcel data is employed in a very wide range of public, private, and civic uses. However, almost every person interviewed expressed a desire for better quality data. Most users spend considerable resources obtaining, improving, and standardizing parcel data before they are able to use it for their own needs. Much of this cost is associated with an organization's need to supplement, verify, correct, or integrate data collected by others. Even when the data they begin with is of high quality, however, it may not be sufficiently detailed or readily comparable to other sources, or derived from systems that are technically compatible. All of these problems make parcel data more difficult and more expensive to use.

One of the most obvious issues for data users is the inverted relationship between geographic coverage and the timeliness, detail, and completeness of parcel data. At the point of basic data collection, generally conducted by municipal assessors, parcel data is most up-to-date and contains the most detail regarding a variety of attributes. Most municipalities report assessment data to the county and state levels only once a year but some municipalities do not report all of their parcel inventory and improvement data.

At the county level a new kind of information is maintained in the form of tax maps, but the county tax maps and assessment rolls are not as detailed as the information in the municipal assessors' offices. When ORPS supplies data files to the statewide GIS Clearinghouse, the files contain even less detail, generally comprising about 25 descriptive attributes and usually the parcel centroid (i.e., the location of the approximate geographic center of a parcel). Thus a user seeking statewide information from a single source has access to the smallest amount of information, while a user whose purpose is limited to single town can make use of the greatest amount of information. Figure 2 below illustrates this paradox:

Figure 2. The paradox of data coverage and detail

As a consequence of this paradox, any use which requires regional or statewide information also requires the user to make many separate requests from different data suppliers. Usually requests go to counties where the tax maps and associated attribute data offer relatively good basic coverage for most applications. However, this process is time-consuming, costly, and unpredictable because counties do not follow uniform procedures or policies for dealing with data requesters. These problems and expenses add to the cost of many projects and can sometimes cause users to abandon their projects.

In addition, most uses require data from other sources or require data that is more detailed than that collected in the process of real property tax functions. For example, most engineering uses require survey quality data, which tax maps do not provide. Such users did not expect that county or municipal data should meet this standard, but they believed that their own data investments should be devoted to expanding or supplementing this basic data, not to acquiring it (or correcting it) in the first place.

Interviewees also mentioned incompatible technologies as a barrier to more effective data use. For example, not all parcel maps use the same mapping projection, which is a mathematical model for converting locations on the earth's surface in a way that allows flat maps to depict three dimensional features. Although some technologies convert files originating from different mapping projections easily, there are still others that do not preserve the integrity of shape, the accuracy of area, distance, or direction.

Issues associated with data management

Data management associated with real property tax functions works in a relatively standard way all over the state. However, parcel data management outside of tax functions vary widely and the typical arrangement is best described as **ad hoc**. Users of parcel data must make many individual data requests to different data sources. As noted above, a few local governments have data management strategies in place that address the needs of

external users, but in most places requests are handled on a one-by-one basis. At the same time almost no feedback mechanisms exist between data users and data collectors, so that the investments that users make in data improvements are not built back into improvements in the original data sources.

Figure 3. Lack of feedback mechanisms to improve data

Figure 3 shows the lack of update and feedback mechanisms in the typical data flow. Note that nearly all the arrows point in only one direction – from the data source to a requester. Many users obtain data from municipal, county, and state sources, but (with the notable exception of the statewide GIS Data Sharing Cooperative) users are neither expected nor allowed to return data corrections, enhancements, or other improvements to the data sources. When users obtain annual or other updates from their data sources, they can actually make the situation worse because the data they have improved can be replaced by some of the same old errors that still exist in the source files. The difficult choice is to forgo the updates in order to keep their own corrections, lose some of their corrections in order to obtain updated files for other records, or engage in very costly and time consuming matching and integration activities.

Issues associated with data supply and distribution

Data supply and distribution methods and costs vary widely from time to time and place to place. Some of the costs are associated with fees charged by various localities or private data suppliers for the data itself, although there are no standard policies about fees. Interviewees reported wide variation in fees and data sharing policies across and within the levels of government. For example, some sources require a formal data sharing agreement or contract to be signed before providing data, while others provide it on request. Some require formal Freedom of Information Law requests, others treat these requests as routine. Similarly, costs of data sets vary. For example, some offices charge only for reproduction or no charge at all while others have price lists or subscription fees. Some local governments, such as Suffolk County, reported obtaining significant revenue from the subscription sale of parcel data, while state agencies and most local governments charge little or nothing. Consequently a range of approaches is in use including:

- Single transactions at no or low cost to requesters
- Single transactions at revenue-generating cost to requesters
- Standardized access mechanisms such as web sites at no or low cost to users
- Standardized subscription services that offer restricted access for an annual fee

This variety of access methods and philosophies causes confusion and adds both direct and indirect costs for many users, although it generates some cash flow for certain data suppliers. As noted above in the discussion of stakeholder interests, conflicting views on this topic are a major barrier to achieving a readily usable statewide parcel data resource.