

Data Collection



Goal of this Course

The goal of this course is to educate you in proper and effective methods of residential data collection for use by assessment personnel involved in mass appraisal of property. *Mass appraisal requires complete and accurate data, effective valuation models and proper management of resources.*¹ The collection of accurate and complete data, utilizing uniform methods and techniques, allows us to accomplish our objective of fair and equitable assessment throughout the geographic area in which we are working. Incorrect or incomplete data collection results in an improper assessment which could result in a property owner paying more (or less) than their fair share, skewed market models, and the possible loss of public trust in the work we do. At the same time, we are human, and make mistakes. Taking the time to get accurate data the first time saves time and embarrassment. Preparation is key before venturing into the field to gather data.

*Mass appraisal is the process of valuing a group of properties as of a given date and using common data, standardized methods, and statistical testing. ... Values for individual parcels should not be based solely on the sale price of a property; rather, valuation schedules and models should be consistently applied to property data that are correct, complete, and up-to-date.*²

¹Standard on Mass Appraisal of Real Property, International Association of Assessing Officers, Approved April 2013, p. 5

² Id. At p. 5

Data Collector

A data collector is the “boots on the ground” member in any assessment office. The data collector is responsible for the complete and accurate collection of data used in the valuation process under the general supervision by CPE staff. *Uniform and accurate valuation of property requires correct, complete, and up-to-date property data. Assessing offices must establish effective procedures for collecting and maintaining property data (i.e., property ownership, location, size, use, physical characteristics, sales price, rents, costs, and operating expenses).*³

The collection of property data is the first and most important step in the process of valuation. A single error puts the validity of the final valuation into question. The Data Collector should understand that they are an integral part in the process of determining the value. If a property is not accurately measured, or if the physical characteristics of a structure are recorded erroneously, the entire process is in jeopardy.

A good Data Collector should be genuinely interested in dealing with the public, being able to handle a variety of different personalities and adjust to any situation. They must exercise good judgment, courtesy and tactfulness with property owners and tenants when giving and receiving information. This includes being thoroughly familiar with county and county assessment office policies regarding appearance and dress, safety and access to parcels.⁴ It is also important to portray a positive image that reflects favorably on others within the assessment office.

³Standard on Mass Appraisal of Real Property, International Association of Assessing Officers, Approved April 2013, p.5.

⁴Data Collector Standards , Local Government Commission, p. 1

Data Collector Standards

The Local Government Commission has adopted a set of Data Collector Standards as best practices. While each County will handle this topic differently, what is included in them will pertain to the majority of the Counties in the Commonwealth.

HANDOUT – DATA COLLECTOR STANDARDS

Skills, Training & Education

Ideally, the Data Collector will possess the following basic skills:

- Knowledge of the appraisal process
- Basic math skills, including calculating angles and the area of geometric shapes
- Ability to read and understand maps, building plans and surveys
- Photography skills with the ability to properly frame and focus images
- Desktop and laptop computer proficiency
- General knowledge of software and web-based applications including Microsoft Office, Computer Aided Mass Appraisal (CAMA) and Geographical Information Systems (GIS)

Skills, Training & Education

The Data Collector should be trained:

- To collect data in a prescribed format designed to facilitate the entry of the data into the CAMA system
- To complete photo logs, mileage logs and other required documentation
- To document data affecting property characteristics, such as the presence or absence of a structure observed during field review which is not reflected on the property record card, or mapping discrepancies

The Data Collector should be educated:

- In the laws dealing with the taxation of real property
- Regarding their limitation in discussing value, unless they hold a CPE license

Property Inspection Do's and Don'ts

It is of the utmost importance to know your office's or county's policies with respect to what you are permitted to do while engaging in the collection of data.

- Be courteous and respectful to the property owners, occupants at all times
- Before knocking at the door, be sure you are at the correct property
- Have your identification card or badge conspicuously displayed or in hand when greeting the owner/occupant
- Keep your property record cards and any accompanying documents neat and clean, and know why you are visiting the property
- Ask questions about all the data that will be necessary in the valuation process and listen carefully to the responses you receive. Obtain as much information as possible about the property and the work that prompted your visit.
- Use tact in responding to comments and complaints regarding your visit. Make legible notes on the property record card so that the owner can see you are treating valid concerns with respect.

Property Inspection Do's and Don'ts

- NEVER enter a home when a minor child is there alone.
- Don't engage in a debate with an argumentative property owner/occupant. If you are refused an interior inspection or told to leave the property, do so quietly, noting the same on your property record card.
- Don't enter onto a site that has obvious hazards.
- Don't enter a residence with wet or muddy footwear.
- Don't step on flowers, bushes or freshly seeded lawns.
- Avoid discussing or engaging in a conversation regarding neighboring properties, previous assessments, or possible discrepancies unless you have a thorough knowledge. No one likes a know-it-all!
- Don't over talk. Ask questions and listen to the responses carefully.

Safety

It cannot be stressed enough that every effort needs to be taken to ensure all aspects of your safety while performing data collection. The Data Collector needs to be very attentive to each and every aspect of a property.

With established homes, be alert for the presence of animals on the property who may or may not be happy to see you. Even friendly dogs will bite if they are startled. Farms have a variety of animals that seem harmless, but remember that horses will bite and kick, roosters have razor-sharp talons that cut through fabric, and every mother will attack if you get too close to her babies.

Proper clothing and attire should be worn. Loose or flowing materials, jackets or belts can get caught on nails or equipment on the site. Shoes should have thick soles, or even steel soles/toes to prevent nails from perforating through the shoe. If you are visiting a construction site, check with the contractor to see if a hardhat or protective eyewear is required.

When you enter an active construction site, seek out the job boss or whoever is in charge and let them know who you are and why you are there. Be certain to stay out of the way of workers on the site. Don't step on any construction material on the ground. You may damage it or make it dirty. Also remember that new construction sites have had the site excavated which leaves the ground area muddy and slippery after a rain. If it is not possible to perform your work safely and without interfering with the active construction project, note that on the property record card and return at a later date to complete the collection of data.

If you are given permission to enter a structure under construction, be mindful of building materials and nails on the floor, boards sticking out, power cords and power tools laying about. Use caution using any stairs without railings. Don't step on any newly finished hardwood floors, tiled floors or new carpeting with dirty footwear. Avoid touching walls which may have fresh paint.

Equipment

The assessment office staff needs a variety of tools and equipment to effectively perform data collection. Data Collectors need to be educated in the proper use of the equipment as well.

- Assessment maps, up to date with the proper identification system (map, block, parcel)
- CAMA system with photo capability
- Digital camera with a high-capacity memory card
- Clipboard, pencils, pens, graph paper, note paper, ruler
- 100 foot measuring tape
- Blank property record cards, data information request door hangers, business cards

Photographing the Property

It's been said that a picture is worth a thousand words. Photos taken by assessors and data collectors, as well as aerial photos are valuable tools to the assessment office staff in the day-to-day work of the office as well as for the Appeal Board in Appeal Hearings.

When taking photos, it's always best to have the sun to your back to minimize glare. However, that's not always possible. Try to shield the camera from the sun and take photos from a variety of angles. Be certain to take photos from all views: front, back and sides. If there are out buildings, get a photo of the structure itself, and get a view of the structure and the dwelling to show the proximity of the structure to the home. Do not take photos of the property if there are people in the way, especially children.

Keep a log of the photos with the date they were taken, being careful to note the address of the property to avoid having a photo put into the wrong record. When adding new photos to the record for a property, don't delete the old photos. Having a historical record of the appearance of the property allows for a review of the "before" and "after" versions of structures which have undergone major renovations. When a structure has been demolished, take a photo of the vacant lot with as much of the lot in view to identify where the structure had been prior to the demolition.

Inspection of the Property

A Data Collector must give their full and complete attention to the task of collecting and listing detailed and complete data for every property they inspect. The data collected at the initial visit, and then entered for a property is the most important aspect of the appraisal/assessment process. Extreme care should be taken to inspect with great detail, and treat each property as a separate and different case, regardless of the fact that it may be the same design as other homes in the neighborhood.



When you arrive at the property, it is important to remember that the property owners aren't typically expecting you, and some may treat your presence as an invasion of their privacy, especially if the permit which prompted your visit reflects only a small portion of the improvements that the homeowner actually performed. There will also be those property owners who insist that you go over their property with a fine-tooth comb, remeasure every wall, and debate the data that exists for

their home. Be prepared to handle any of the various situations that may arise respectfully. Also important is to be sure that you are at the correct property by checking the number on the house or mailbox. If there are no numbers on the house, check the houses on either side. This is especially important with new construction so that the data you collect gets entered into the proper location.

Inspection of the Property

As you approach the property, take the time to verify information that may already be recorded on the property record card and confirm the accuracy of that information. Things to be looking at include:

- Utility service: electrical lines, gas lines, water and sewer lines or is the property services by a well or septic system. Are there overhead power lines or electrical poles running through the property?
- Road: is it paved, dirt, gravel; is the traffic pattern light or heavy; are there nearby traffic signals or signs. Does the street run through, or is it located on a cul de sac or dead-end road
- Lot: what is the topography, is it level, does the house sit above or below street level? Are there any creeks, streams, ponds, wetlands located on the site?
- View: Is there a view of a lake or a panoramic mountain side view that may result in an increased land value?
- Location: is the property located in or near a commercial or industrial area? Does it front on an interstate or super highway?

The reason these things should be identified is that some factors reflect favorably while others negatively on a property's value and should be given consideration when valuing the property.

Style and Grade

Data Collectors may or may not be charged with assigning the quality grade to a dwelling or structure, but should be certain to photograph and note observations and impressions regarding the construction. A Data Collector will be able to identify the style of the dwelling. Items to consider and record include:

- Architectural style: colonial, ranch, cape cod, split level, bungalow, modern, historic, etc. Data Collectors should have a clear understanding of architectural styles so that it is accurately reflected in the record.
- Story height: it is important to make a full perimeter walk around the dwelling in order to make this determination. And it is not always easy to make this determination, especially with custom homes.
- Roof design: data collectors should be educated in the different types of roofs (gable, hip, gambrel, mansard, etc.) so that they are accurately recorded, and it may be helpful to have illustrated examples for reference while in the field.
- Roof cover: asphalt/composite shingle, slate, tile, rolled roofing, metal, etc.
- Exterior walls: vinyl siding, cedar shingles, stone, brick--and be careful to closely examine the exterior to be certain that it is not just decorative veneer or possibly painted to look like brick.

Take a good look at the overall condition of the dwelling, would you classify it as excellent, good, average, fair or poor condition. Note whatever you observe to be able to assist in the proper entry of the condition factors into the record.

Contemporary



Cape Cod Style



Bungalow



One Story



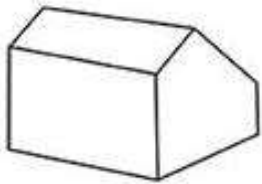
Two Story



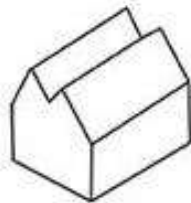
Split Level

Roof Types

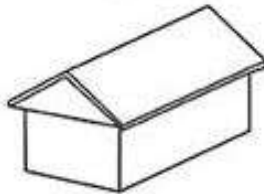
Saltbox Roof



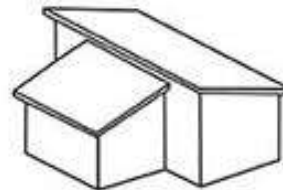
M-Shaped Roof



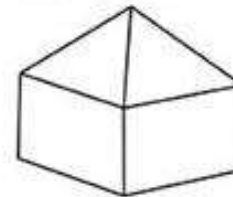
Box Gable Roof



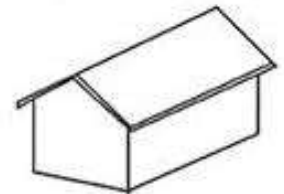
Skillion and Lean-to Roof



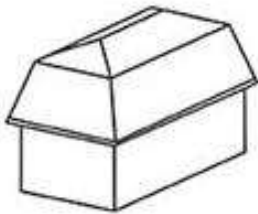
Pyramid Hip Roof



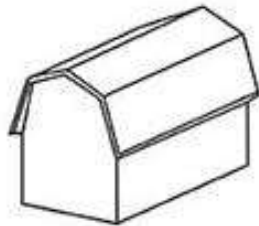
Open Gable Roof



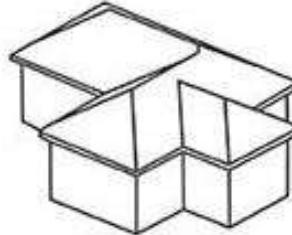
Mansard Roof



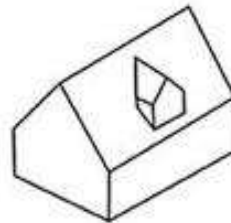
Gambrel Roof



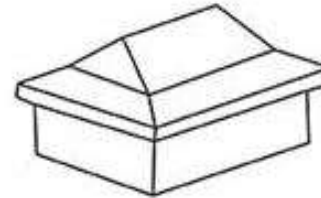
Hip and Valley Roof



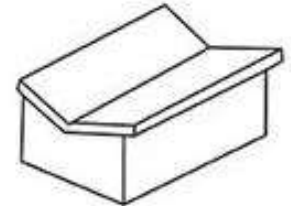
Dormer



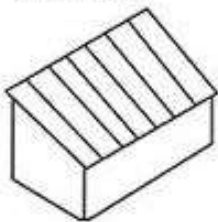
Combination Roof



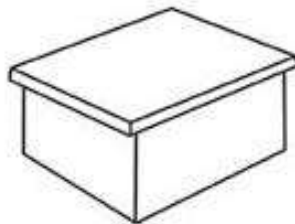
Butterfly Roof



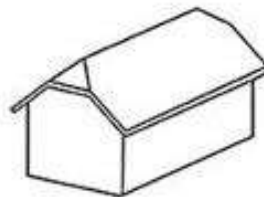
Shed Roof



Flat Roof



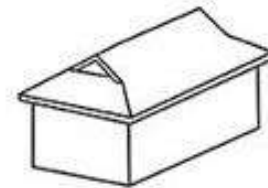
Jerkinhead Roof



Hexagonal Gazebo Roof



Dutch Gable Roof

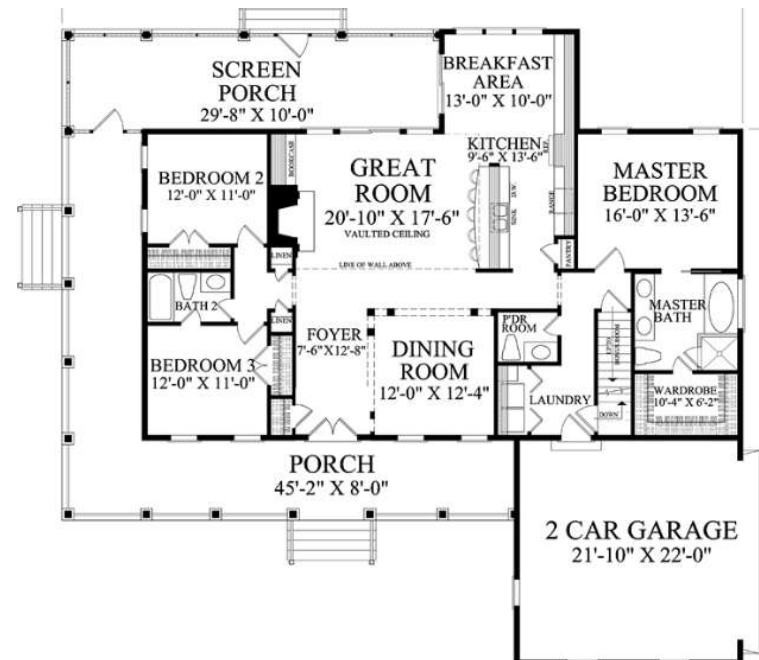




Room Count

There is and always will be a debate as to what constitutes a room. Your county should establish a standard and make sure that all data collection is done consistently among all staff members. Some Realtors say that you cannot call a room a bedroom unless it has a closet. Some general appraisers insist that you cannot include finished basement area in the total square footage of the dwelling. A room could be an area enclosed by four walls, or in an open design/great room design the kitchen, dining room and family room could be one big open room but recorded as three separate rooms. Establish what the criteria is and be consistent and accurate in the recording of the data.

Bathrooms can be debated as well. Again, know what the established standards are for what qualifies as a full bathroom versus a half bathroom. If the facility has a toilet, sink and shower is it a full bath, or does it have to also have a bathtub to qualify as a full bath. Again, there are some other professions who designate a bathroom with only a toilet, sink and shower as a $\frac{3}{4}$ bath. Know the practice of your office in the treatment of bathroom data for the record.



Interior Inspection

If the property owner is willing to allow you to enter the dwelling for an interior inspection, remove your footwear before moving about the home. Try to be brief, but pay careful attention to all of the details throughout the home. Is the lower level finished, and to what degree. Is it heated? Is there a restroom? Is there a separate exit from the lower level, and does it exit to exterior generally or does it exit to a patio? On the main floor, are there any areas open to the second floor which would result in a reduction of square footage of actual living space? Are there any skylights, vaulted or tray ceilings? If there are additional floors, are they full walls or knee walls. If there is an attic, is it a full, walk-up style or is there a drop down staircase to access it? Is there any finished area in the attic. Be diligent in counting the rooms and bathrooms as you go and mark the type carefully on the record card.

If there are fireplaces, be sure to note where they are located, whether they are woodburning, gas, or pellet type. If there are more than one, do each of them have a separate chimney or are they ventless? Be aware that some older homes have fireplaces that are purely decorative, not functional, and those should be noted accordingly.

Identify the type of heat system in the home:

- Hot air: forced air heat or gravity heat
- Hot water boiler, hot water is circulated by gravity or by pumps to the various parts of the house
- Steam boiler, no pumps or fans but the pressure forces the steam upward into radiators throughout the house
- Electric baseboard
- Heat pump, which serves as both heat for the winter and cooling for the summer

Outbuildings

Garages, sheds, pole buildings, barns, quonset buildings, pavilions, gazebos, carports, pools and pool houses, greenhouses—the list goes on. Just as with the inspection of a dwelling, full and complete attention must be given to the collection of data for accessory structures not attached to the dwelling—outbuildings.

You should ask your Chief Assessor for direction on how your county assesses outbuildings, but the following are general guidelines for data collection:

Garage A garage will have a block foundation, three full walls and a fourth wall which is equipped with an overhead door which provides access for vehicles. Sometimes the front and rear of the garage will both have overhead doors.



Outbuildings



Garage with block foundation



Outbuildings

Sheds are typically simple, single story, roofed structures, used for storage of a variety of items from lawnmowers to lawn furniture, used as a workshop, or a “She Shed”. Frequently, sheds are not affixed to the ground.



Outbuildings

Pole buildings or post-frame construction buildings are less expensive alternatives to a block foundation garage, and take less time to construct. They are constructed using poles or posts which are set in the ground. Pole buildings may have four walls, or no walls at all. They may also have overhead doors and are used to store vehicles, just as a garage.



Outbuildings



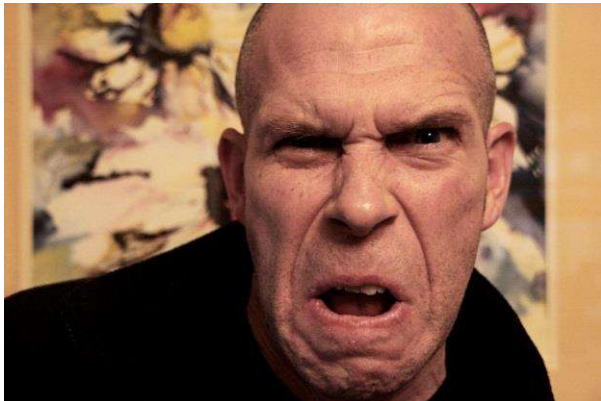
In ground pool & pool house



Pavilion

Entry Refusals

Property owners are under no obligation to allow you entry into the home. Never argue with a homeowner who refuses your request for an interior inspection, even when you have identified yourself and explained the reason for your visit and your need to inspect the work that was permitted. Try to get as much information as possible at the door, and note it carefully on the property record card. If the owner declines to offer any information, again, don't argue. Do, however, note on the property record card that an interior inspection and/or information were refused. Whatever information cannot be obtained has to then be estimated based on the information you do have from the copy of the permit you have received from the municipality.



If you must estimate data due to the owner's refusal to allow an inspection and/or provide information, or due to the property being unoccupied at the time of your visit, utilize what you know from the copy of the building permit you received and what you know about comparable properties in the area. If the municipality requires a final inspection to verify the work was done to the proper building codes, you may be able to obtain information from the code inspector.

Measuring

Structures on any parcel of land require the Data Collector to measure the exterior perimeter in order to determine the square footage, one of the foundations of the value calculation process. It is the most tangible part of the data collection. A mistake made measuring and calculating the square footage of a structure skews the whole appraisal. Once again, attention and focus on this process is absolutely necessary. While property owners may pride themselves in knowing the measurements of their home, many times they are wrong. The best way to handle an overzealous owner who wants to rattle off the dimensions of his home is to thank them, and tell them that you are required by County policy to physically run the tape measure and gather the measurements. Often times the property owner finds that your measurements are less than his, so if you had used his measurements it would have resulted in a miscalculation of square footage and higher taxes.

When working on a data collection assignment for new construction, know that the building plans rarely measure the same as the finished home. Resist the temptation to rely on the measurements from building plans; however, they are an excellent resource for identifying rooms in the home, areas which are open to the second floor and finished areas in the attic or basement. The actual measurements must always be measured in the field upon completion of construction.

Measuring custom homes and homes that have been added onto several times over the years can be a daunting task. Remember what you learned in that Geometry class you had in high school that you thought you'd never use again? You'll finally get the chance to use those skills to measure a garage built at an angle onto the side of a dwelling, or turrets constructed on that custom country home that make it look like a castle, or large bay windows that overlook the lake. Irregular angles will also be found on homes that appear rectangular, but are constructed at angles to stay within setback lines on an irregular shaped parcel.



Tips on Measuring

- Be certain you are entering the data on the correct property, verifying the lot number at a new construction site, or the house number and property owner's name on an existing home.
- Make a neat and complete drawing. You don't have the time and don't want to have to experience the embarrassment of having to go back and measure again.
- Even if the home appears to be a perfect square or rectangle, measure all sides and record the measurements on your drawing.
- If you aren't using graph paper to verify that your drawing closes, be sure to calculate each side's total measurement to be certain that the sides balance and the drawing closes.
- After completing the measurements, take another walk around the structure, remembering to look up and note any differences in the second floor of the structure, like overhangs or partial finish over a garage.
- If you have to access a part of the home through a gate, be sure that you close the gates securely after you exit.
- Measure every structure as if you were performing the work for an Appeal Hearing or even a Court Hearing and have to defend your data.

Data Collection Errors

Recording incorrect data for a property has negative effects on both the sales comparison approach and cost approach to value. Miscalculated square footage, room counts, story height will result in the over or under valuing of a property. The job of data collection is not a difficult one, but it requires the focused attention of the Data Collector. Training is necessary and important prior to sending a data collector into the field to work independently. If you have any questions about any part of the process, ask your supervisor or a senior staff member immediately. Don't be timid, but at the same time don't be pushy or rude. Learning is a cumulative process, there's always something new to learn!

Mistakes to be alert to:

- Double check the current record against the property during your visit. Perform a full perimeter inspection. If an outbuilding is listed on the card, confirm that it is there during your visit. Conversely, if the card doesn't reflect an outbuilding being assessed and you observe a structure, collect the data on that structure. Note what's right and what's wrong.
- Verify the number of living units
- Ask pertinent questions. Verify the terms of a recent sale. Inquire about any remodeling or renovations and when it was done. Does the owner reside in the home or is it tenant occupied?
- Be certain that you are drawing the addition or any new structure in the correct location of the sketch on the property record card. Look up as you are measuring to confirm the story height. Ask if there is a basement on an addition to an existing dwelling.

Recording Notes

On any given day, the Data Collector is going to be visiting a lot of different locations. So it is imperative that you make detailed notes during your visit. Especially if another member of the office will be utilizing the data to calculate the value. They won't be able to read your mind. Of course, taking an adequate number of photos from a variety of angles will also assist in the value determination.

Be cautious about including information provided by a property owner that is not verified. For example, a property owner may state that there are two living units in the dwelling, but the zoning for the location in that municipality does not permit multi-family dwellings. Another common claim is that a vacant parcel of land is unbuildable. Request copies of letters from the municipality declining a building permit or the county health department indicating that it did not pass a well or septic inspection or test. Any information provided by a property owner or tenant should be noted as such: "Property owner states that there are two units in the dwelling." Before making any corrections to the record, confirm the data. That way if your work is called into question at a future time, your notes will reflect how you verified the information.