

DCHC MPO

(Durham-Chapel Hill Carrboro Metropolitan
Planning Organization)

CAMPO

(Capital Area Metropolitan Planning
Organization)

Employment Analyst Training

September 2013

DCHC



Durham-Chapel Hill-Carrboro
METROPOLITAN
Planning Organization

How to use Employment Analyst

Logging in to ArcGIS Online

<http://dchcmpo.maps.arcgis.com/>

Sign in to Durham-Chapel Hill-Carrboro MPO

Username:

Password:

[Forgot Username or Password?](#)

SIGN IN

Keep me signed in



How to use Employment Analyst

- The easiest way to access EA is through the Employment Analyst group.

HOME GALLERY MAP **GROUPS** MY CONTENT MY ORGANIZATION



My Groups



CREATE A GROUP



INVITATIONS (0)

Show

You are a member of 3 groups

All My Groups

Owned by Me

Owned by Others

With New Membership Requests



Data Collection and Monitoring

DCHC MPO Data Collection and Monitoring
created by AmandaMPO on June 14, 2013

Details



Employment Analyst

Users of the online Employment Analyst.
created by AmandaMPO on August 26, 2013

Details



Homepage Maps

Homepage Maps

created by AmandaMPO on July 3, 2013

Details



How to use Employment Analyst

- Look for the “Official” web map (not features). This is the real data:

Title	Owner	Rating	Views	Date
Employment Analyst 2013 - Official Employment Analyst 2013 official editing application. Web Map by AmandaMPO Last Modified: September 9, 2013 ☆☆☆☆☆ (0 ratings, 0 comments, 0 views)				
Employment2013_July26 Employment data for 2013 Employment Analyst data verification process. Features by AmandaMPO Last Modified: July 30, 2013 ☆☆☆☆☆ (0 ratings, 0 comments, 2 views)				X
Employment2013_Sept9 Employment data for 2013 Employment Analyst data verification process. Features by AmandaMPO Last Modified: September 9, 2013 ☆☆☆☆☆ (0 ratings, 0 comments, 0 views)				X

How to use Employment Analyst

- Open the map in “ArcGIS.com map viewer.”

Employment Analyst 2013

(Or just click the picture)



Employment Analyst 2013 official e

Web Map by AmandaMPO

Last Modified: September 9, 2013

☆☆☆☆☆ (0 ratings, 29 views)

Facebook Twitter

OPEN ▾

SHARE

EDIT

DELETE

Open in ArcGIS.com map viewer

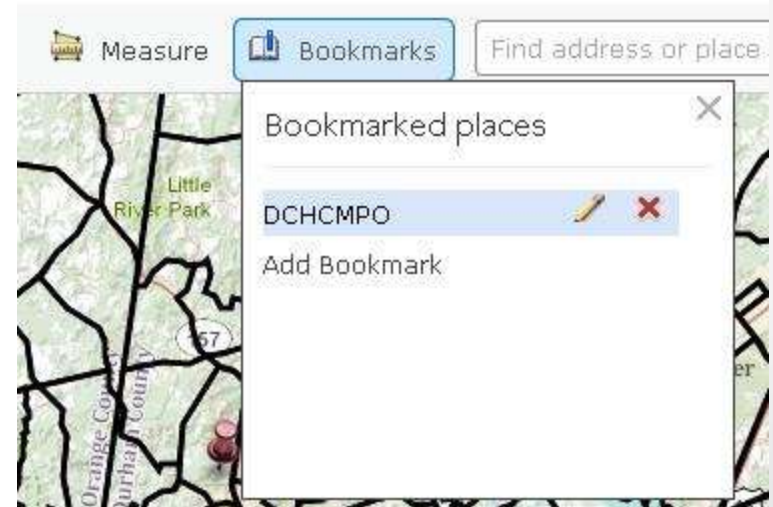
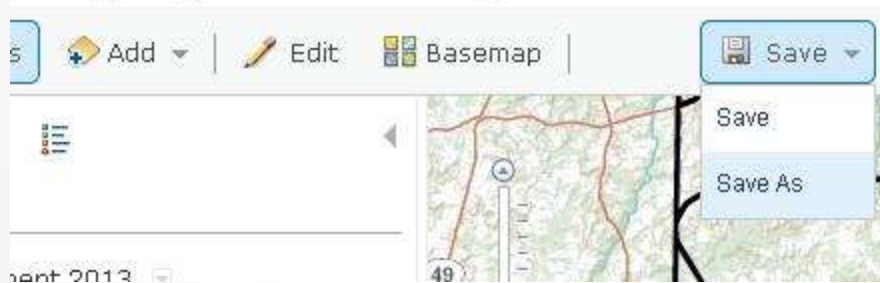
Open in ArcGIS Explorer Online

Open in ArcGIS 10 For Desktop

Save a copy of the map to your content

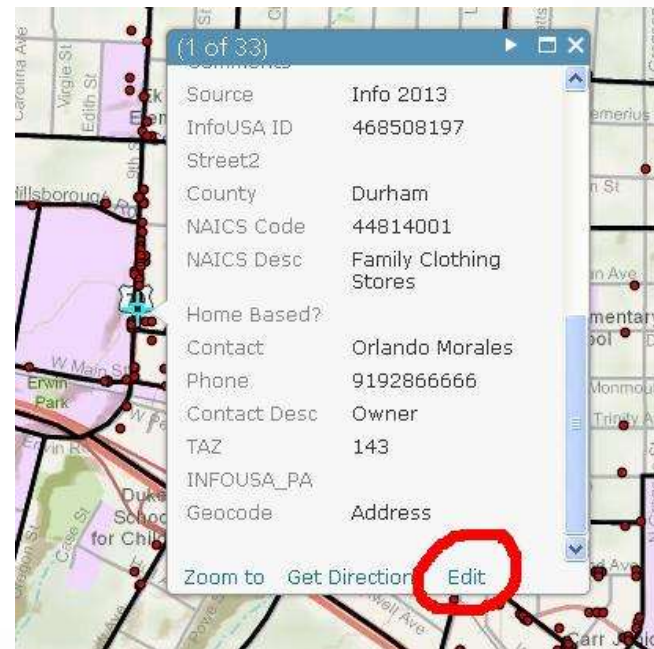
- EA lets you save a copy of the map, so you have your own working interface
- Use your own bookmarks, symbology, filters, basemap. Save your place for next time.

Employment Analyst 2013 - TEST



How to edit points

- Once you have identified a starting place (TAZ, large businesses, employment center), it's time to start reviewing business information.
- Either click the “Edit” button at the top of the screen, or click “Edit” on an individual point’s popup.



Watch for stacked-up points!

- When multiple points exist in the same spot, the popup window will say (1 of 5) or similar. One of those will be the TAZ.
- Use arrows to navigate through multiple points.

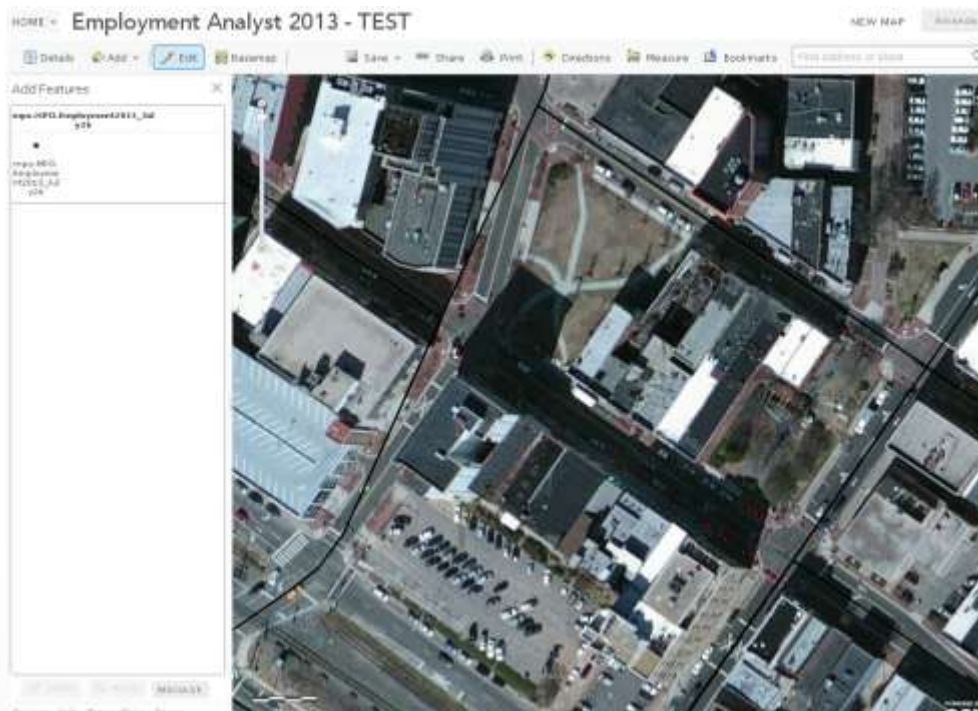
Try zooming in to reduce the number of points caught by your click!





Editing: Location

- Once in edit mode, points can be moved by dragging.
- Isolate points before zooming out to move long distances.
- Point is moveable when mouse pointer is a hand.
- Use imagery basemap to move points off street, onto to building roof.





Editing: Number of Employees

- Each record contains employee counts from 2010 and 2005, if available.
- In edit mode, simply type in the new employee count for 2013.

Field	Value
Reviewed?	No
Employer Name	Durham Fire Dept Station 1
Street	139 E Morgan St
City	Durham
ZIP	27701
Employees 2013	42
Employees 2010	42
Employees 2005	12
Employment Type	Industrial
Location	None
Comments	Updated: 42 / svc / (2030280 817690)



Editing: Employment Type

- Employment type has a drop-down menu for choosing the correct category.

mpo.MPO.Employment2013_July26

Reviewed?	No
Employer Name	Mc Donald's
Street	102 W Morgan St
City	Durham
ZIP	27701
Employees 2013	42
Employees 2010	42
Employees 2005	0
Employment Type	Retail
Location	Office
Comments	Office

Industrial

Retail

Service Low

Service High

Editing: Other attributes

- Many other attributes are editable.
- Some points offer you the opportunity to designate a “**Location**,” such as a mall, campus, or shopping center. These are not used in the model, but are helpful for searching and filtering.
- When you finish reviewing or editing the point, change “**Reviewed?**” to “Yes” to show that it is done. You can change colors or filter based on that field.

Field	Value
Reviewed?	No
Employer Name	Yes
Street	No
City	
ZIP	27701



More about filtering

- Filters allow complex queries of records, so you can narrow down what you are looking at. Here is an example:

Filter: Employment 2013

Create

+ Add another expression Add a set

Display features in the layer that match **All** of the following expressions

Location	is	Northgate Mall	×
<input type="checkbox"/> Ask for values		<input checked="" type="radio"/> Value <input type="radio"/> Field <input type="radio"/> Unique	
Reviewed?	is	No	×
<input type="checkbox"/> Ask for values		<input checked="" type="radio"/> Value <input type="radio"/> Field <input type="radio"/> Unique	
Employees 2013	is less than	Employees 2010	×
<input type="checkbox"/> Ask for values		<input type="radio"/> Value <input checked="" type="radio"/> Field <input type="radio"/> Unique	

APPLY FILTER CLOSE

Adding and Deleting Businesses

- Closed or duplicate businesses can be deleted from the popup in edit mode.

- Businesses can be added in edit mode too, and you can fill in the attributes in the popup.

Tip: If you have multiple records for the same business, keep the record with the most information and delete the rest!

For added establishments, make sure you add the big three:

- Geolocation
- Number of employees
- Employment type

Plus, the establishment name would be helpful.



If you delete a business by mistake:

- Click “undo” immediately! That is the only way to get it back at that time.
- If you aren’t able to undo the delete, add it back as a new point or let Andy or Amanda know – we have a backup!



ZIP and County Centroids

- Points with bad addresses had to be geocoded to ZIP Code and County centroids.
- These stacks of points need to be moved to their true locations.

Blue pushpins are county centroids



Red pushpins are ZIP centroids

ZIP and County Centroids

- These locations can have hundreds of points. You can use filters to find and isolate them:

Filter: Employment 2013 ×

Add another expression Add a set

Display features in the layer that match All of the following expressions

Geocode is ZIP Value Field Unique Ask for values

ZIP is 27278 Value Field Unique Ask for values

ZIP and County Centroids

- Use the arrows at the top of the popup to go through stacked-up points.
- Prioritize businesses with higher numbers of employees.

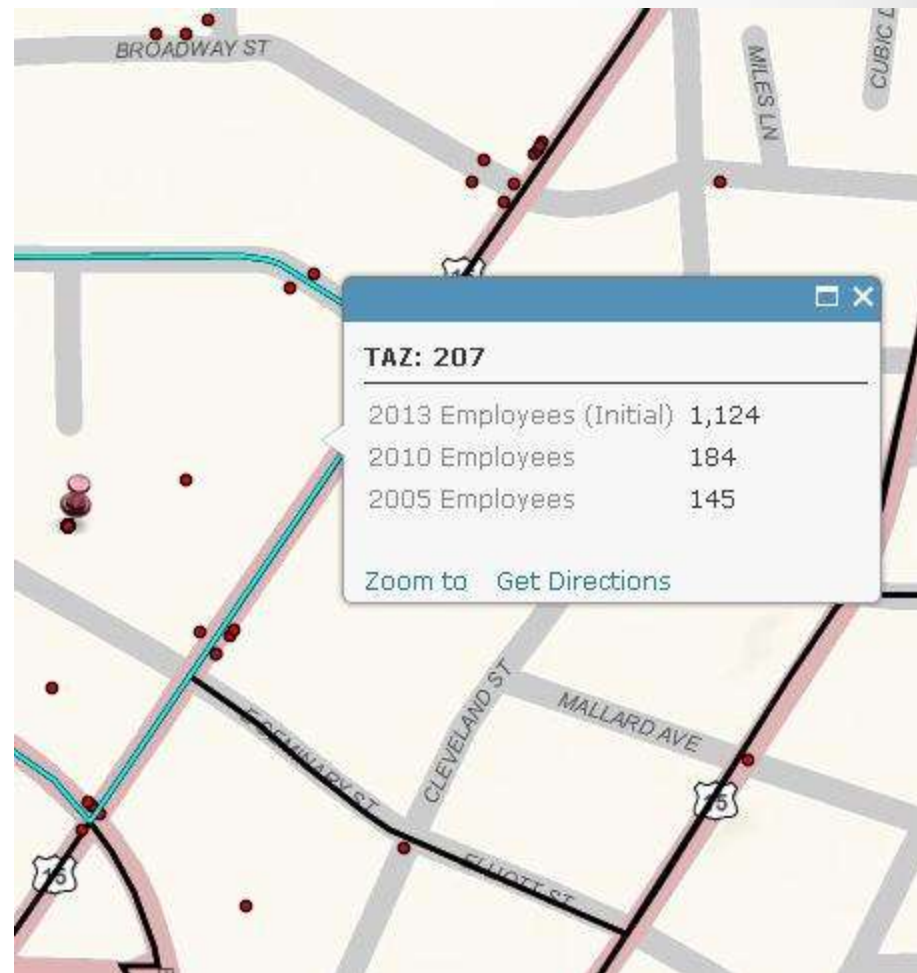


- When you want to move a point, click "Edit" at the bottom of the popup.
- Only one point can be dragged at a time.



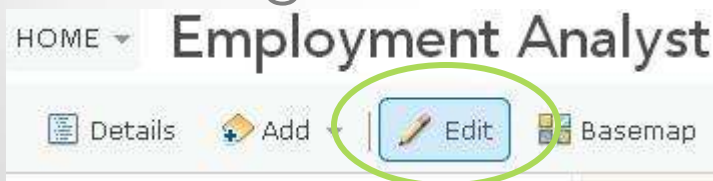
TAZ Totals

- The popup for TAZ features gives you the TAZ totals for employment in 2005, 2010, and the initial load for 2013.
- **The 2013 total does NOT update as you change employment numbers.** It is meant to be used as a guide, to help find anomalies.
- Don't try to match 2013 total to the 2010 total!

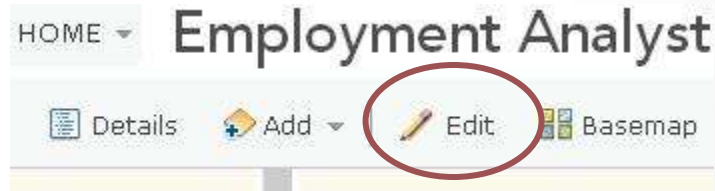


Saving your work

- Changes you have made to points are saved automatically when you stop editing.
- If you want to save changes you have made to the look of the map, you must save the map. This saves:
 - Symbology
 - Filters
 - Bookmarks
 - Visible extent
 - What layers are turned on
- If you don't need to save any of those things, you can just close the map. Make sure you have exited editing mode.



Edit is on!



Edit is off!

Practice Exercises

- First, log in to the DCHC MPO homepage on ArcGIS Online: <http://dchcmpo.maps.arcgis.com/>
- Under Groups → Employment Analyst, choose the “TRAINING” map.
- Save a copy of the map using “Save As”

Save Map ×

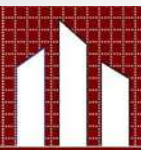
Title:

Tags:

Add tag(s)

Summary:

Save in folder: ▼



Practice Exercise: Editing

- Use filters to find a McDonald's in your area.

Filter: Employment 2013



Create

+ Add another expression Add a set

Display features in the layer that match **All** of the following expressions

Employer Name starts with Mc Value Field Unique

Ask for values

City is Durham Value Field Unique

Ask for values

APPLY FILTER

CLOSE



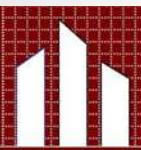
Practice Exercise: Editing

- Use the table to find the point on the map.

The screenshot displays a GIS application interface. On the left, a legend lists several layers with checkboxes: Employment 2013, ZIP Locations, County Locations, TRMv6 TAZ, and Topographic. On the right, a context menu is open, listing various actions for a selected layer. The 'Show Table' option is highlighted with a red circle.

Layer	Checked
Employment 2013	<input checked="" type="checkbox"/>
ZIP Locations	<input checked="" type="checkbox"/>
County Locations	<input checked="" type="checkbox"/>
TRMv6 TAZ	<input checked="" type="checkbox"/>
Topographic	<input type="checkbox"/>

Action
Zoom to
Transparency
Set Visibility Range
Move up
Move down
Rename
Remove
Hide in Legend
Remove Pop-up
Configure Pop-up
Change Symbols
Disable Editing
Perform Analysis
Show Table
Filter
Show Item Details
Save Item Properties



Practice Exercise: Editing

- Click on the record you want, click on “Table Options,” and choose “Center on Selection.” The map will move to your chosen point.

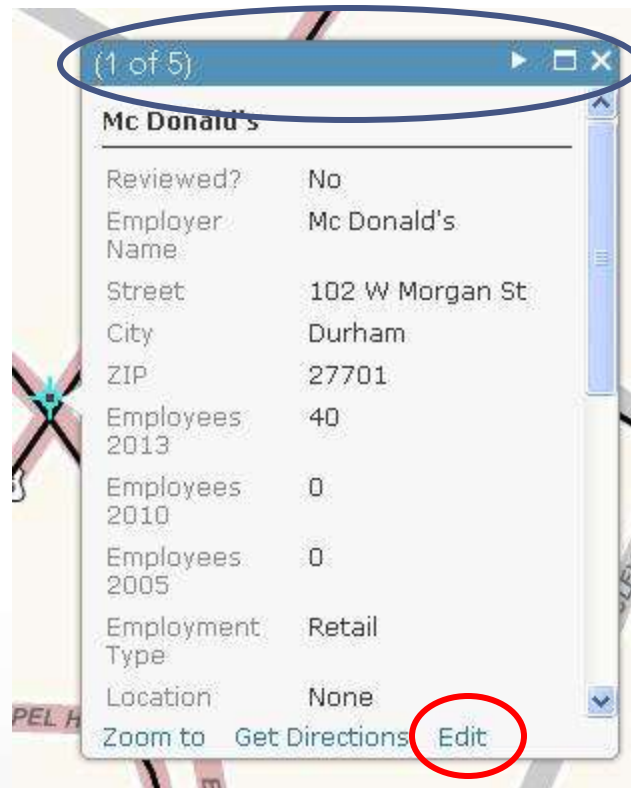
The screenshot shows a GIS interface with a map at the top and a data table below. The map includes a scale bar (0 to 2000m) and a red circle highlighting a specific location. The data table is titled "Employment 2013 (52 features, 1 selected)" and has the following columns: Employment Type, Comments, Source, InfoUSA ID, Employer Name, Street, City, and ZIP. The "Table Options" menu is open, and the "Center on Selection" option is highlighted.

Employment Type	Comments	Source	InfoUSA ID	Employer Name	Street	City	ZIP
	hwy / (2017580 819306)						
Ret	Updated: 42 / hwy / (2029712 818350)	Info 2010	698782075	Mc Donald's	102 W Morgan St	Durham	27701
Ret		Info 2013	125571919	Mc Donald's	3533 Hillsborough Rd	Durham	27705
Ret		Info 2013	406923292	Mc Donald's	3117 Tower Blvd	Durham	27707



Practice Exercise: Editing

- Click on the point to bring up the popup, and click “Edit” at the bottom of the popup.
- If there are multiple points, you can use the arrows at the top of the popup to find the one you want.



Practice Exercise: Editing

- Fill in the editable attributes, especially Employees 2013 and Employment Type!
- Don't worry about messing up the data. This isn't the real dataset.

- Change Employees 2013 to 40
- Change Employment type to Retail
- Try changing Location as well!

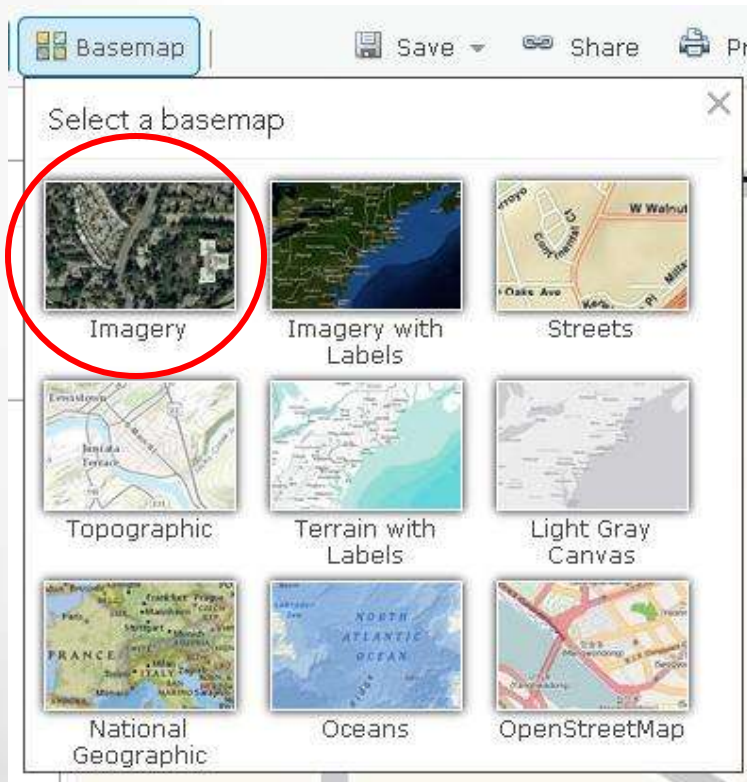
Reviewed?	Yes
Employer Name	Mc Donald's
Street	102 W Morgan St
City	Durham
ZIP	27701
Employees 2013	40
Employees 2010	0
Employees 2005	0
Employment Type	Retail
Location	Industrial
Comments	Office

When you are finished, change Reviewed? To "Yes"



Practice Exercise: Moving Points

- While you are in edit mode, you can also drag a point to change its location.
- Change the basemap to see where buildings are.



Choose “Imagery” to see aerial photos.

Choose “OpenStreetMap” if you prefer building footprints.



Practice Exercise: Moving Points

- Move the McDonald's to the roof of the building.
- If it's already there, try moving it next door or across the street.



Practice Exercise: Moving Points

- Now let's move some more points. Turn off editing, and remove your filter. (You can do this from the table too.)
- Look around your area and find a bunch of points in the street.



Filter: Employment 2013

View Edit

All of these expressions must be true:
Employer Name starts with 'Mc'
City is 'Durham'

REMOVE FILTER CLOSE



Practice Exercise: Moving Points

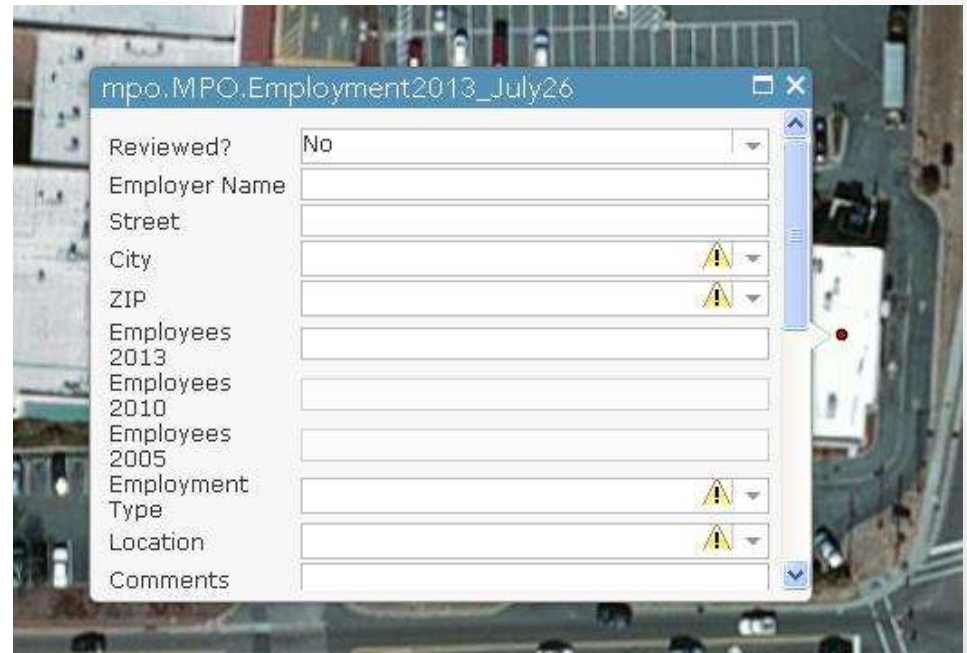
- Turn editing back on and move them out of the street.





Practice Exercise: Add a New Point

- Add a new point from the “Add Features” sidebar in editing mode.
- Add a new feature on the roof of a building in your area.





Practice Exercise: Add a New Point

- Fill in the attributes as follows:

The screenshot shows a software window titled "mpo.MPO.Employment2013_July26" with the following fields and values:

Reviewed?	No
Employer Name	Starbucks
Street	3823 Guess Rd
City	Durham
ZIP	27705
Employees 2013	26
Employees 2010	
Employees 2005	
Employment Type	Retail
Location	Erwin Square
Comments	



Practice Exercise: Add a New Point

- Fill in more attributes if you can!

Comments	Manually added
Source	
InfoUSA ID	
Street2	
County	Durham
NAICS Code	
NAICS Desc	
Home Based?	No
Contact	Mike Williams
Phone	9194712957
Contact Desc	Manager
TAZ	
INFOUSA_PA	



Practice Exercise: Add a New Point

- When you have filled in all you can and verified the Big Three (spatial location, number of employees, and employment type), change “Reviewed?” to “Yes.”

mpo.mPO.Employment2013_July26	
Reviewed?	Yes
Employer Name	Starbucks
Street	3823 Guess Rd
City	Durham
ZIP	27705
Employees 2013	26
Employees 2010	
Employees 2005	
Employment Type	Retail
Location	Erwin Square
Comments	Manually added

Turn off editing to save the point!

When Can We Start?

- Today!
- Make sure you use the map in ArcGIS Online called Employment Analyst 2013 - Official.
- The “Training” map is just for practice. It won't be used in the modeling process.