The following step-by-step process is an aid to produce 2020 Census Block Group values corresponding to all parcels in a county parcel shapefile. This is for the purpose of populating data field 78 (Census Block Group) in a county's DOR roll submissions. While this step-by-step explanation may appear lengthy, the entire process should take less than 15 minutes to complete. The end result is a .txt report that contains a comma delimited parcel number field and a **GEOID20** field. Please note that the 2020 Census Block Group **GEOID20** field is 12 characters in length.

Download the Census Block Group shapefile for your county from the Secure File Transfer Protocol (SFTP) server. Each county's Census Block Group shapefile has been placed in their respective Misc-To-PA folder. A password is required to access the SFTP server.

Right click the downloaded .zip Census file and choose "Extract all" saving the uncompressed file in a location of your choosing. Add the Census Block Group shapefile to a new ArcMap session.

Add a copy of your current parcel shapefile to the new ArcMap session. Performance tip: In addition to shapefile default fields FID and Shape, limit the remaining fields to only your parcel identification field.

Select Geoprocessing tools and navigate to the Dissolve tool.



Depress the Dissolve tool to open the dissolve dialog box that will look like this:

N Dissolve	1000			
Input Features				<u>^</u>
Export_Output_2				
Output Feature Class				
C:\Users\cantert\Documents\ArcGIS\	Default.gdb\Export	_Output_2_Dissolve5		2
Dissolve_Field(s) (optional)				
Select All			Add Field	
Statistics Field(s) (optional)				•
Field		Statistic Type		+
				×
				•
•			•	
Create multipart features (optional)				-
	ОК	Cancel Environment	s) << Hid	le Help

Input Features will be your current parcel shapefile so using the dropdown button, navigate to it. Dissolve\_Fields will be performed on your parcel identification field, so check that. Depress OK. A status scroll will appear below the bottom of your ArcMap window. A new shapefile will be added to your Table of Contents and will have an extension of \_Dissolve.

#### **Open Arc Toolbox as shown:**



#### **Open the Data Management tools:**



#### Navigate to Features and double-click:



Now navigate to Feature to Point and double-click to access the dialog box:

Features         Add XY Coordinates         Adjust 3D Z         Bearing Distance To Line         Check Geometry         Copy Features         Delete Features         Dice         Feature Envelope to Polygon         Feature To Line         Feature To Point         Feature To Point         Feature To Points         Minimum Bounding Geometry	
* Feature To Point	
Input Features Export_Output_2_Dissolve3 Output Feature Class C:\Users\cantert\Documents\ArcGIS\Default.gdb\Export_Output_2_Dissolve3_Fe Inside (optional)	*

Input Features will be the Dissolve shapefile you created, so using the dropdown select it.

Click OK.

Another new shapefile will be added to your Table of Contents. It will have an extension of \_FeatureToPoint. The file name may be shortened so don't be alarmed.

Activate the \_FeatureToPoint shapefile. Right-click it and select Join and Relates and then choose Join.

Join Data	Х
Join lets you append additional data to this layer's attribute table so you can, for example, symbolize the layer's features using this data.	
What do you want to join to this layer?	
Join data from another layer based on spatial location	~
1. Choose the layer to join to this layer, or load spatial data from disk:	
🕙 tl_2020_12001_bg20 🗨	
2. You are joining: Polygons to Points	
Select a join feature class above. You will be given different options based on geometry types of the source feature class and the join feature class.	
Each point will be given all the attributes of the polygon that:	
It falls inside.	
If a point falls inside more than one polygon (for example, because the layer being joined contains overlapping polygons) the attributes of the first polygon found will be joined.	
) is closest to it.	
A distance field is added showing how close the polygon is (in the units of the target layer). A polygon that the point falls inside is treated as being closest to the point (i.e. a distance of 0).	
3. The result of the join will be saved into a new layer.	
Specify output shapefile or feature class for this new layer:	
C:\Users\cantert\Documents\ArcGIS\Default.gdb\Join_Outpt	
About joining data OK Cancel	

As shown, using the dropdown select "Join data from another layer based on spatial location". At 1., using the dropdown, select the Census Block Group shapefile. Notice at 2. that "it falls inside" is selected. Depress OK.

"Join\_Output" will be a point file. Open the attribute table. See that GEOID20 field (highlighted) is populated. Depress the dropdown button and navigate to Reports and then to Create Report.

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Jo	in_Output_3										
	OBJECTID_1 *	FID	Shape *	PARCELNO	ORIG_FID	FID_1	STATEFP20	COUNTYFP20	TRACTCE20	BLKGRPCE20	GEOID20
Þ	1	1	Point ZM		1	90	12	001	001803	4	120010018034
	2	3	Point ZM	00002-000-000	3	95	12	001	001815	1	120010018151
	3	4	Point ZM	00003-000-000	4	95	12	001	001815	1	120010018151
	4	5	Point ZM	00004-000-000	5	95	12	001	001815	1	120010018151

In the Report Wizard dialog box, double-click parcel ID and also GEOID20 so they move over to Report Fields.

Report Wizard	×
Which fields do you want on your report? Layer/Table: Join_Output_3 ~ Available Fields:	Report View Contents Field: (None) ~ Report Fields:
FID ORIG_FID FID_1 STATEFP20 COUNTYFP20 TRACTCE20 BLKGRPCE20 NAMELSAD20	PARCELNO     GEOID20
Cancel	< Back Next > Finish

Click Next.

Report Wizard	×
Do you want to add any grouping levels?  Report Fields: PARCELNO GEOID20   Priority	PARCELNO, GEOID20
Grouping Options	
Cancel	< Back Next > Finish

Click finish at this step and let the report generate.

It will look something like this. Notice in this example the parcel ID is on two lines. Click Edit.

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	Join PARCELN 00002-000	0000	put_3 GEOID20 120010018034 120010018151	
	Join PARCELN 00002-000 00003-000	-000	<b>put_3</b> GEOID20 120010018034 120010018151 120010018151	

Finally, we are going to modify the report to eliminate page breaks, headers and footers before choosing the final output format.

Left click on "Page (Page Number) of (Page Count)" and delete. Also delete PARCELID, GEOID10 in the page header as well as the "Join\_Output" title in the report header, as shown.

III Report Designer - Untitled [Join_Output_3]							
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	-	PARCELNO GEOID20					
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	-	Page {Page Number} of {Page County					
	=	ReportFooter					

Hover the cursor at the bottom of the report header, the page header and the page footer areas to collapse those fields by dragging the separators up.



When the fields are adjusted, click Run Report as shown circled:

🛗 Report Designer -	Untitled [Join_Output_3]
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Picture	= 🖂 detail
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Next click Export report to file as shown. This will open the Export Report dialog box. Typically, choose Text Format from the dropdown.

Report Viewer	pin_Output_4
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-	00-00-0210-0000-0452 120652501022
4	00-00-0210-0000-0460 120652501022
-	00-00-0210-0000-0461 120652501022
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	III •

In this example, Text delimiter is comma. Where highlighted, navigate to the desired folder, name the file and click OK. YOU ARE DONE!

E	хро	rt Report		-		×
	Ex	port Format:	Text Format (T)	(T)		-
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