Change Color to Show Dominant Value

This is a helpful trick if you want to create a map showing the dominant value in some category, and your attribute table is structured with multiple columns showing these values. A common example for this is creating a map showing the dominant race in each census tract using the American Community Survey race data. This is often done automatically when displaying the layer in ArcGIS Online, but disappears once downloaded into ArcGIS Pro.

In ArcGIS Pro

Open the Symbology for your data layer and make any changes to colors that you want. Click the little X icon next to the Field 1 dropdown.

This will open the Arcade Expression Builder. Arcade is a scripting language specific to ArcGIS software that writes functions for visualizing or labeling data. It's sort of similar to JavaScript coding.

The layer should have an expression already filled in the expression box- long string of code in screenshot below. Copy that entire expression.

Language Arcade • Title Predominant category Fields • Functions • Object ID Geographic Identifier - FIPS Code Area of Land (Square Meters) Area of Water (Square Meters) Area of Water (Square Meters) Area of Water (Square Meters) State County Total Population • V Insert Values • Expression Expression Expression Ffeature. B03002_005E-\$feature. B03002_004E-\$feature. B03002_004E;var dec_var_B03002_004E:\$feature.B03002_004E-\$feature.B03002_004E;var Dec_var_B03002_004E:\$feature.B03002_004E-\$feature.B03002_004E;var Dec_var_B03002_004E:\$feature.B03002_004E-\$feature.B03002_004E;var Dec_var_B03002_004E:\$feature.B03002_004E-\$feature.B03002_004E;var Dec_var_B03002_004E:\$feature.B03002_004E:\$feature.B03002_004E;var Dec_var_B03002_004E:\$feature.B03002_004E:\$feature.B03002_004E;var Dec_var_B03002_004E:\$feature.B03002_004E;var Dec_var_B03002_004E:\$feature.B03002_004E;var Dec_var_B03002_004E:\$feature.B03002_004E;var Dec_var_B03002_004E:\$feature.B03002_004E;var Dec_var_B03002_004E;var Dec_var_	Expression Builder		×
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Open the symbology for your clipped layer, set it to Unique Values, then open the expression builder next to Unique Values and paste the following code in. You will need to edit it to make sure that the field names in red (e.g. "B03002_005", etc.) all correspond to the actual field names of your dataset.

```
var dec var B03002 005=$feature.B03002 005;var
dec var B03002 006=$feature.B03002 006;var
dec var B03002 004=$feature.B03002 004;var
dec var B03002 012=$feature.B03002 012;var
dec var B03002 003=$feature.B03002 003;var
dec var B03002 007=$feature.B03002 007;var
dec var B03002 008=$feature.B03002 008;var
dec var B03002 009=$feature.B03002 009;$feature["B03002 005"];
$feature["B03002 006"];
$feature["B03002 004"];
$feature["B03002 012"];
$feature["B03002 003"];
$feature["B03002 007"];
$feature["B03002 008"];
$feature["B03002 009"];
var fieldNames = [ "B03002 005", "B03002 006", "B03002 004", "B03002 012",
"B03002 003", "B03002 007", "B03002 008", "B03002 009" ];
var numFields = 8;
var maxValueField = null;
var maxValue = -Infinity;
var value, i, totalValue = null;
for(i = 0; i < numFields; i++) {
value = $feature [fieldNames[i]];
if(value > 0) {
if(value > maxValue) {
maxValue = value;
maxValueField = fieldNames[i];
}
else if (value == maxValue) {
maxValueField = null;
ł
}
```

return maxValueField;

You will need to click on the symbol patches in the table below to change colors, and doubleclick into the label value to edit into a more understandable name like below:

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Symbol		Value	Label					
✓ Custo	om	4 symbol	classes ***					
	*	B03002_003	White alone, not Hispanic or Latino					
	*	B03002_005	B03002_005					
	*	B03002_009	B03002_009					
	*	B03002_012	B03002_012					
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If you publish this to ArcGIS Online as a web layer, the symbology changes should (!) carry through.