

## **Urban Poverty Data Update for Durham and Mecklenburg Counties**

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The UNC Center on Poverty, Work and Opportunity released a report in 2010 called “Documenting Poverty, Economic Distress and Challenge in North Carolina.” This report references a 2005 study called “The State of North Carolina’s Urban Distressed Communities,” by Allen Serkin and Stephen Whitlow. The UNC Center on Poverty, Work and Opportunity used Serkin and Whitlow’s study to show that the most distressed urban tracts of North Carolina contain even worse rates of poverty compared to the most distressed rural tracts in the state. The report specifically cites Serkin and Whitlow’s findings on the following variables: percentage of people in poverty, percentage of child poverty and elderly poverty, the high school graduation rate, the percentage of families headed by single mothers, and homeownership. Serkin and Whitlow collected data from the 2000 U.S. Census about these variables in every tract of every county in North Carolina. This report updates Serkin and Whitlow’s data using more recent Census data, but focuses only on the distressed tracts in Durham and Mecklenburg counties. This report also shows the averages for the specific variables in 2000 in the distressed tracts of Durham and Mecklenburg to draw comparisons.

### **I. Determining Distress**

In order to update the statistics, I first had to determine which tracts in Durham and Mecklenburg counties were considered distressed based on the most recent census data. Serkin and Whitlow defined distress by using three criteria: an unemployment rate that is greater than or equal to 150% of the North Carolina average unemployment; a per capita income less than or equal to 67% of the North Carolina average; and a poverty rate that is greater than or equal to 150% of the North Carolina average.

I recalculated these three criteria using current census data (2007-2011 ACS 5-year estimates). I found that the North Carolina average unemployment rate is 7.3%, and 150% of that is 10.95%. The average per capita income is \$25,256 and 67% of that is \$16,922. Finally, the North Carolina average poverty rate is 17.9%, making 150% of this 26.8%. For each census tract in Durham and Mecklenburg counties, I found the unemployment rate, the per capita income, and the poverty rate. I determined which tracts were distressed and met all three criteria: an unemployment rate of greater than or equal to 10.95%; a per capita income amount of less than or equal to \$16,922; and a poverty rate of greater than or equal to 26.85%.

## **II. Distress Findings**

I found 13 distressed tracts in Durham County (tract numbers 5, 10.1, 10.02, 11, 13.01, 13.03, 13.04, 14, 15.01, 15.02, 17.09, 18.02, 23). This is an increase from the eight distressed tracts in Durham County that Serkin and Whitlow found in their 2005 study using 2000 Census data. Four of the current distressed tracts were considered distressed in Serkin and Whitlow's study (10.01, 11, 14, 15.01). It should be noted that there are more tracts overall than there were in 2000. The 2010 Census has data for 60 tracts in Durham. In 2000, there was data for only 53 tracts. This means that in 2000, 15% of the tracts of Durham county were considered distressed. In 2010, 22% of the tracts were distressed. This is a significant increase.

In Mecklenburg County, I found that 26 tracts met the criteria qualifying them as distressed (16.05, 16.08, 17.02, 19.19, 23, 37, 38.02, 38.07, 38.08, 39.02, 39.03, 42, 43.02, 45, 46, 47, 50, 51, 52, 53.01, 53.08, 56.04, 56.09, 58.24, 60.06, 61.09). This is also an increase from the 16 tracts that Serkin and Whitlow determined to be distressed in 2005. Ten of the tracts that I found to be currently distressed were also distressed in Serkin and Whitlow's study (23, 37, 39.02, 42, 45, 47, 50, 51, 52, 56.04). Again, there are overall more tracts in the 2010 Census

Mecklenburg data than there were in 2000. In 2010, there were 230 tracts and in 2000 there were only 144. Unlike Durham County, Mecklenburg's percent of distressed tracts only increased less than a percentage point. In 2000, 11.11% percent of the tracts were distressed. In 2010, 11.30% of the tracts in Mecklenburg were distressed.

### **III. Poverty Statistics in Distressed Tracts**

After determining which tracts were considered distressed in Durham and Mecklenburg Counties, I then updated the other poverty-related statistics that were in the UNC Center on Poverty, Work and Opportunity's original report. On Tables 1 and 2, I list the poverty rate, child poverty rate, elderly poverty rate, high school graduation rate, percentage of single-mother families, and percentage of homeownership for each of the distressed tracts. Table 1 shows the data for Durham, and Table 2 is about Mecklenburg. After finding the percent for each variable, I averaged all of the distressed tracts. This gave me an average of Durham and Mecklenburg poverty statistics in the distressed tracts to compare to Serkin and Whitlow's averages for urban distressed tracts throughout all of North Carolina. Graph 1 shows these comparisons.

Additionally, I collected data from the 2000 Census about the distressed tracts in Durham and Mecklenburg specifically. Serkin and Whitlow listed the tract numbers in their 2005 report. The 2000 information for Durham is in Table 3, and the Mecklenburg 2000 data is in Table 4. Durham's distressed tracts were 8.01, 9, 10.01, 11, 12.01, 12.02, 14, 15.01. Mecklenburg's distressed tracts were 8, 9, 23, 36, 37, 39.01, 39.02, 41, 42, 45, 47, 50, 51, 52, 53.04, and 56.04. Like the 2010 data, I found the averages for each of the variables for all of the distressed tracts in each county. I summarize the comparisons between 2000 and 2010 in the following sub-headings and also created a bar graph for each county – Graph 2 is for Durham and Graph 3 is for Mecklenburg. However, these comparisons should be made with caution because of several

differences between the 2000 and 2010 surveys and methodologies used to collect data. For the 2010 data, I used the 2007-2011 American Community Survey 5-Year Estimates. For the 2000 data, I used 2000 Census 2000 Summary File 3 (SF 3) - Sample Data. Please see the following section IV for more information about comparability issues.

#### **a. Poverty**

I found that the 13 distressed tracts in Durham County had an average poverty rate of 46.71%. Serkin and Whitlow used 2000 Census data and found that the urban distressed tracts in all of North Carolina had an average poverty rate of 33.34%. This means that the poverty rate in the distressed tracts of Durham is greater by 13.37 percentiles than the average for all North Carolina urban distressed tracts in 2000. In Mecklenburg County, I found the average rate of poverty in the distressed tracts to be 42.38%. Again, this is an increase from all of the distressed urban tracts rate of poverty in Serkin and Whitlow's study (33.34%) by 9.04 percentage points.

Durham's average rate of poverty in its distressed tracts in 2010 was 46.71%, which is also a slight increase from the average rate of poverty of Durham's distressed tracts in 2000 of 45.55% (increased by 1.16 percentage points). The average rate of poverty in Mecklenburg's distressed tracts in 2010 was 41.3%. This is significantly worse than the average rate of poverty of the 2000 distressed tracts, which was 31.52% (increased by 9.78 percentage points).

#### **b. Child Poverty**

I determined the average rate of child poverty in the most distressed tracts of Durham. I found the average to be 55.21%, which is greater by 11.71 percentiles than the average of all urban distressed tracts in Serkin and Whitlow's study (43.5%). In Mecklenburg, I found an average rate of child poverty of 55%, which is greater than Serkin and Whitlow's findings by 11.5 percentiles.

The average rate of child poverty in Durham's distressed tracts in 2010 of 55.21% was a significant increase from the 2000 average of 48.02% (increased by 7.19 percentage points). The average rate of child poverty in Mecklenburg's distressed 2010 tracts of 53.9% was also much worse than the 2000 distressed tracts' average of 27.94% (increased by 25.96 percentage points)

### **c. Elderly Poverty**

I found an average of 25.64% for the rate of elderly poverty in Durham's most distressed tracts in 2010. This is actually less than Serkin and Whitlow's finding using 2000 Census data of 26.3%. The 2010 Mecklenburg average of elderly poverty in its most distressed tracts was 18.93%, again an improvement from the 2000 data for all distressed tracts in North Carolina of 26.3%.

The average rate of elderly poor in Durham's 2010 distressed tracts of 25.64% is an improvement from the 2000 average of 37.8% (decreased by 12.16 percentage points). Similarly, the average rate of elderly poor in Mecklenburg's 2010 distressed tracts was 18.46%, a significant improvement from the 2000 average of 26.68% (decreased by 8.22 percentage points).

### **d. High School Graduation**

The average rate of graduation in Durham's most distressed tracts in 2010 was 72.5%. This is a great improvement from Serkin and Whitlow's 2000 finding of 42.5% for all North Carolina distressed tracts. Similarly, the Mecklenburg 2010 average for its most distressed tracts was 69.23%. I was only able to find graduation rate data for adults over the age of 25 from the 2000 Census. Because this excludes the portion of the population who have graduated but are under the age of 25, I chose not to make the comparison between 2010 and 2000, since the data would be skewed.

#### **e. Families Headed by Single Mothers**

I found an average rate of families headed by single mothers in Durham's most distressed tracts of 66.47%. Serkin and Whitlow found an average of 74% for all of North Carolina's most distressed tracts using 2000 Census data. Mecklenburg had an average rate of 56.7%, again lower than the 2000 data for all of North Carolina's most distressed tracts.

The average rate of single-mother headed families in Durham's distressed tracts in 2010 of 66.47% is a noteworthy increase from the 2000 distressed tracts' average of 61.39% (increased by 5.08 percentage points). The average rate of single-mother family headed households in 2010 in Mecklenburg's distressed tracts of 55.95% is slightly worse than the 2000 distressed tracts average of 52.87% (increased by 3.08 percentage points).

#### **f. Homeownership**

The average rate of homeownership in Durham's most distressed tracts using 2010 data is 26.71%. The Mecklenburg 2010 average for its most distressed tracts is 34.03%. Serkin and Whitlow found a 32.1% rate of homeownership in all of North Carolina's most distressed tracts.

The average rate of homeownership in Durham's distressed tracts in 2010 of 27.61% was a slight improvement from 2000's average of 25.52% in Durham's distressed tracts (increased by 2.09 percentage points). The average rate of homeownership in Mecklenburg's distressed tracts in 2010 of 34.38% was again an improvement from the distressed tracts in 2000 of 28.02% (increased by 6.36 percentage points).

#### **IV. Comparing 2010 Census Data to 2000 Data**

The 2000 Census was a long form survey, and used a different methodology than the 2010 Census. The 2010 Census is an entirely new survey using the American Community Survey. Even if individual variables have the same name in the two surveys, this does not mean

they can be compared. For example, the 2000 Census gathered income information for the entire previous year of 1999. The ACS collects data every month, so the income figures are based on the previous 12 months, whatever those might be. This means that the income estimates from the 2000 Long Form survey are not comparable to the ACS estimates. The poverty status estimates are also not comparable because they are based on income and are affected by differing residency rules. The 2000 and 2010 surveys used different rules for determining residency, which impacts the poverty threshold for that family.

Additionally, issues of comparability arise because the ACS sample size is substantially smaller, about 12.5%. The 2000 Census Long Form sample size was 17%. The Census Bureau has accounted for the smaller sample size by using procedures that ensure there is accurate representation in smaller geographies by over-sampling in smaller geographies. However, there are still situations where the smaller sample size can affect the accuracy. This is evidenced by the confidence intervals. The ACS lists its confidence interval next to its estimates. The decennial long-form data didn't require confidence intervals because of the larger sample size. There are some estimates of the ACS where the confidence interval is larger than the estimate itself, showing that the data is not reliable.

## **V. Summary of Key Findings**

- In 2000, 8 out of 53 tracts in Durham were distressed (15.09%)
- In 2010, 13 out of 63 tracts in Durham were distressed (21.67% - increase of 6.58 percentage points)
- In 2000, 16 out of 144 tracts in Mecklenburg were distressed (11.11%)
- In 2010, 26 out of 230 tracts in Mecklenburg were distressed (11.30% - increase of 0.19 percentage points)

- In both Durham and Mecklenburg Counties, the average rate of poverty, average rate of child poverty, and average rate of single-mother headed households in the most distressed tracts increased between 2000 and 2010, most significantly so in Mecklenburg
- Also in both Durham and Mecklenburg Counties, the average rate of elderly poor and homeownership improved between 2000 and 2010



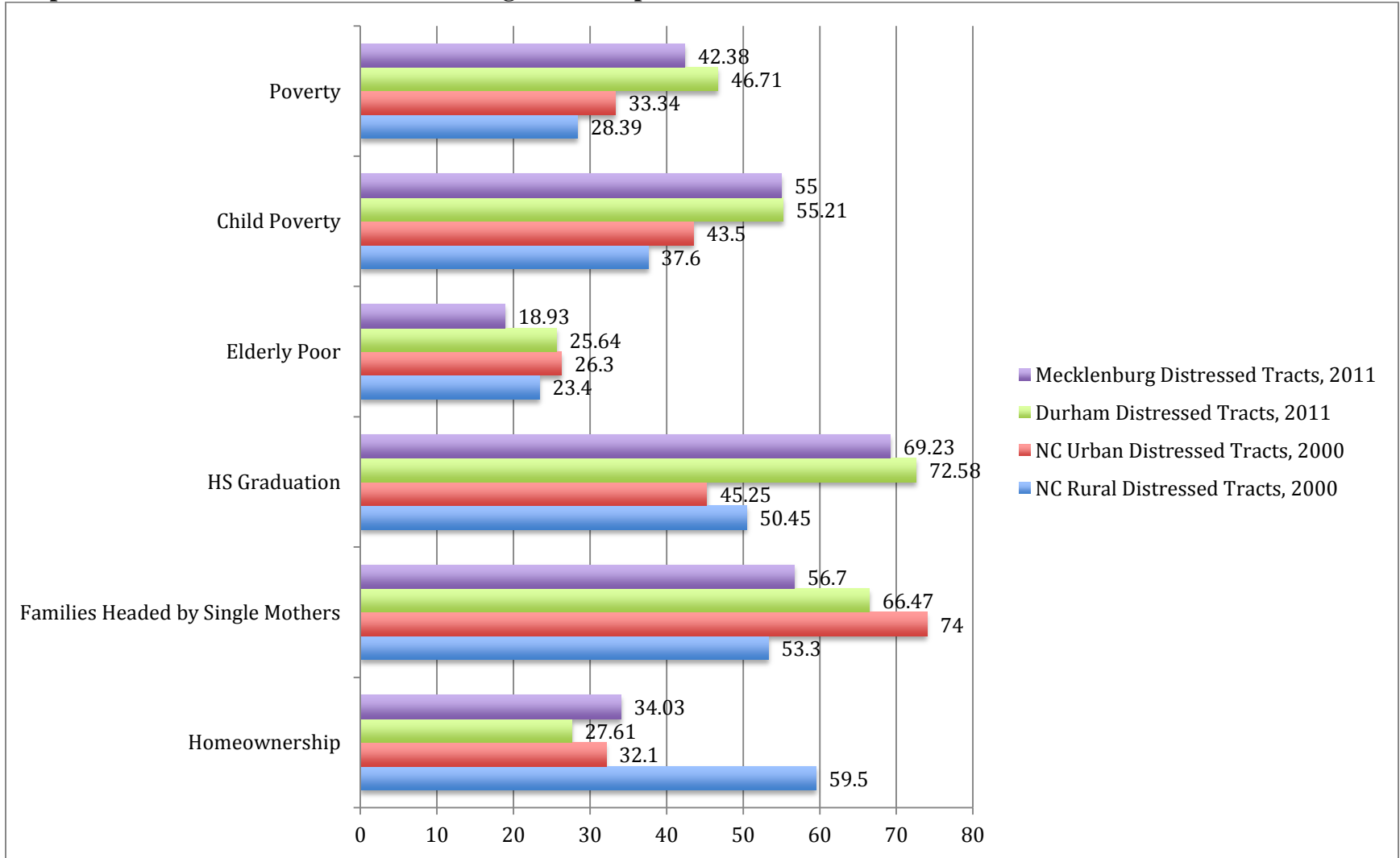
**Table 1 – Durham County Current Distressed Tracts Data**

Distressed Tract #	Poverty	Child Poverty	Elderly Poor	HS Graduation	Single-Mother Families	Homeownership	Distressed in 2000?
5	47.7%	59.5%	22.8%	73.6%	77.7%	25.0%	No
10.01	44.1%	62.9%	25.0%	63.3%	53.1%	32.7%	Yes
10.02	42.1%	53.4%	38.1%	66.9%	54.2%	22.2%	No
11	37.6%	44.2%	28.8%	62.1%	74.8%	14.8%	Yes
13.01	43.5%	48.5%	27.9%	69.8%	72.2%	33.2%	No
13.03	29.4%	41.4%	29.1%	86.4%	88.6%	45.7%	No
13.04	49.2%	81.9%	17.7%	74.5%	69.5%	31.3%	No
14	58.0%	79.2%	8.4%	59.1%	84.2%	23.5%	Yes
15.01	85.1%	**	**	98.5%	**	**	Yes
15.02	32.7%	22.3%	40.5%	67.9%	40.7%	2.8%	No
17.09	37.0%	51.6%	9.4%	80.0%	68.0%	22.6%	No
18.02	31.0%	40.3%	18.9%	74.2%	45.1%	61.2%	No
23	65.2%	75.5%	53.5%	61.5%	57.3%	10.9%	No
Average for tracts	46.71%	55.21%	25.64%	72.58%	66.47%	27.61%	

**Table 2 – Mecklenburg County Current Distressed Tracts Data**

Distressed Tract #	Poverty	Child Poverty	Elderly Poor	HS Graduation	Single-Mother Families	Homeownership	Distressed in 2000?
16.05	44.8%	67.7%	0.0%	61.2%	26.3%	30.0%	No
16.08	33.5%	57.7%	12.6%	72.6%	68.6%	44.9%	No
17.02	30.1%	51.6%	9.9%	67.9%	29.8%	31.9%	No
19.19	46.1%	60.4%	41.9%	81.7%	44.6%	50.6%	No
23	55.0%	71.7%	34.7%	63.2%	75.0%	16.0%	Yes
37	57.9%	76.5%	19.7%	68.3%	82.9%	2.6%	Yes
38.02	28.6%	50.2%	15.1%	70.7%	47.4%	49.9%	No
38.07	29.8%	40.3%	4.5%	69.4%	48.1%	38.8%	No
38.08	31.1%	37.8%	0.0%	61.0%	31.7%	9.5%	No
39.02	29.0%	27.6%	21.5%	64.8%	79.0%	30.4%	Yes
39.03	62.2%	76.7%	52.9%	52.9%	64.8%	8.9%	No
42	51.4%	82.8%	4.3%	70.0%	77.4%	32.4%	Yes
43.02	29.1%	37.8%	13.2%	69.3%	56.0%	59.1%	No
45	50.3%	58.6%	39.9%	66.6%	60.3%	50.6%	Yes
46	26.6%	29.7%	16.1%	79.2%	64.8%	45.3%	No
47	31.2%	68.0%	31.0%	78.8%	74.1%	36.5%	Yes
50	42.7%	50.4%	55.3%	77.6%	64.4%	43.3%	Yes
51	46.2%	63.7%	22.7%	56.2%	92.8%	44.7%	Yes
52	67.0%	90.1%	18.3%	62.7%	68.9%	28.0%	Yes
53.01	34.5%	42.1%	16.4%	64.0%	41.1%	15.7%	No
53.08	31.4%	62.1%	16.0%	50.7%	46.2%	12.7%	No
56.04	65.0%	49.2%	0.0%	95.4%	64.5%	10.7%	Yes
56.09	52.3%	0.0%	**	90.9%	0.0%	6.5%	No
58.24	31.9%	55.5%	0.0%	62.3%	62.6%	32.3%	No
60.06	32.7%	52.7%	8.8%	71.2%	39.6%	80.4%	No
61.09	33.5%	40.4%	6.6%	79.9%	43.6%	82.3%	No
Average for tracts	41.30%	53.90%	18.46%	69.56%	55.95%	34.38%	

**Graph 1 – Current Durham and Mecklenburg Data Compared to All Urban and Rural Tracts in 2000**



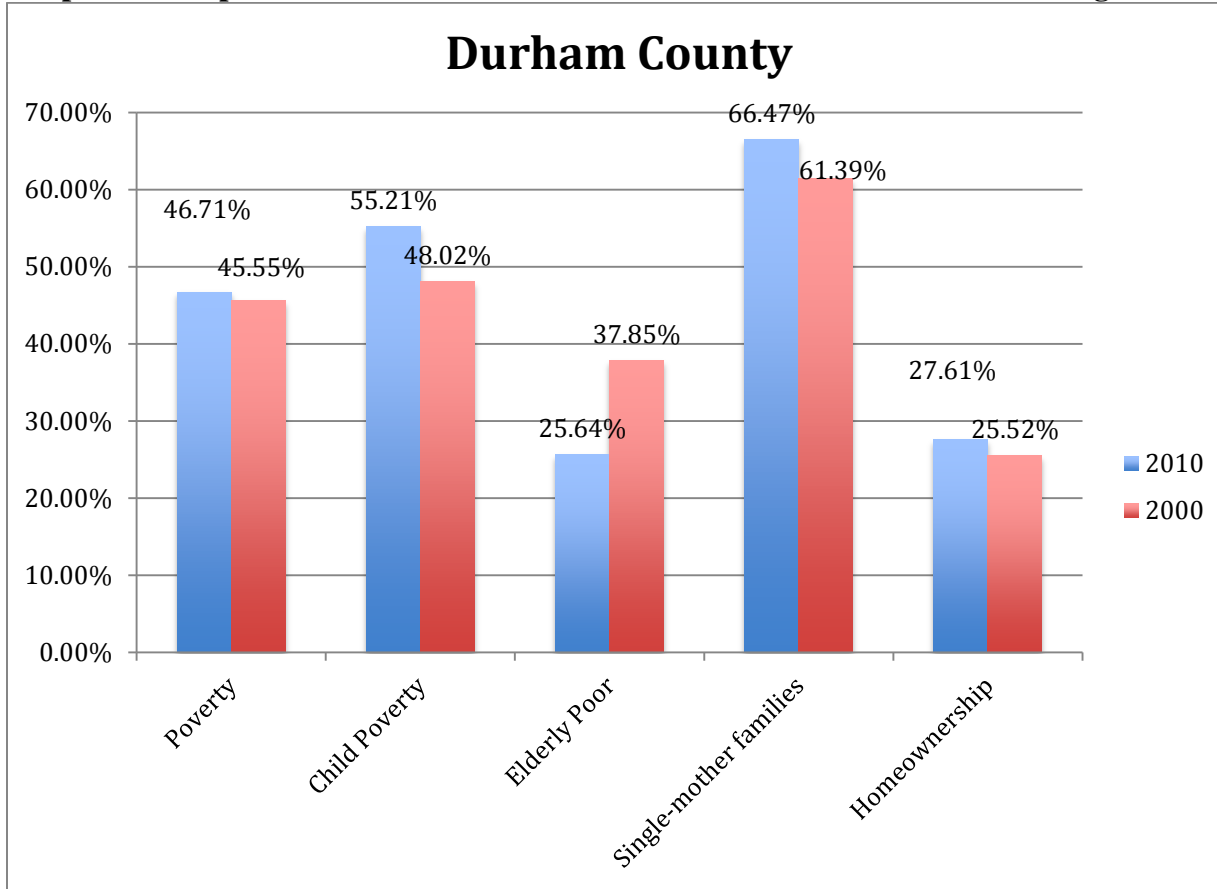
**Table 3 – Durham County 2000 Distressed Tracts Data**

Distressed Tract #	Poverty	Child Poverty	Elderly Poor	HS Graduation	Single-Mother Families	Homeownership
8.01	44.9%	x	x	x	x	52.9%
9	38.0%	50.1%	41.5%	x	52.0%	24.8%
10.01	38.0%	48.1%	31.2%	x	46.2%	27.7%
11	34.4%	35.6%	64.9%	x	48.4%	13.8%
12.01	28.9%	35.8%	44.2%	x	66.8%	22.8%
12.02	44.9%	58.4%	30.6%	x	89.5%	13.2%
14	42.1%	60.1%	14.7%	x	65.6%	22.7%
15.01	93.2%	x	x	x	x	x
Average for tracts	45.55%	48.02%	37.85%		61.39%	25.52%

**Table 4 – Mecklenburg County 2000 Distressed Tracts Data**

Distressed Tract	Poverty	Child Poverty	Elderly Poor	HS Graduation	Single-Mother Families	Homeownership
#						
8	43.3%	50.5%	43.7%	x	65.1%	30.0%
9	23.7%	31.1%	27.5%	x	45.2%	42.6%
23	32.7%	37.8%	41.7%	x	65.4%	14.3%
36	28.4%	35.6%	37.2%	x	47.2%	42.3%
37	45.8%	54.7%	61.5%	x	61.0%	5.3%
39.01	36.3%	51.5%	56.4%	x	66.9%	10.8%
39.02	28.5%	35.0%	29.1%	x	53.0%	36.4%
41	24.9%	33.3%	17.6%	x	50.0%	34.7%
42	24.2%	35.0%	16.4%	x	51.4%	41.7%
45	29.9%	41.1%	28.1%	x	68.7%	34.0%
47	34.8%	52.6%	25.7%	x	68.9%	37.7%
50	29.6%	41.5%	33.0%	x	64.0%	15.3%
51	31.1%	44.0%	35.5%	x	42.3%	33.6%
52	31.0%	29.0%	21.5%	x	43.2%	35.0%
53.04	30.2%	34.4%	0.0%	x	36.5%	11.1%
56.04	29.9%	0.0%	0.0%	x	17.2%	23.5%
Average for tracts	31.52%	37.94%	29.68%		52.87%	28.02%

**Graph 2 – Comparison between 2000 and 2010 Durham Distressed Tract Averages**



**Graph 3 – Comparison between 2000 and 2010 Mecklenburg Distressed Tract Averages**

