IDENTIFYING ECONOMICALLY DISADVANTAGED AREAS

Defined in N.J.A.C. 17:30-1.2.

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Purpose

To identify Economically Disadvantaged Areas (EDAs) as defined in N.J.A.C. 17:30-1.2.

"Economically disadvantaged area" means a zip code that meets all of the following socioeconomic criteria:

> 1. A median income that is eighty percent or less of the average median household income in New Jersey, as determined annually by the U.S. Census Bureau; and
> 2. A health uninsured rate that is at least 150 percent of the health uninsured rate in the state, as determined annually by the U.S. Census Bureau.

Summary of the Report

Fifty-five of the 595 zip codes in New Jersey qualified as Economically Disadvantaged Areas (EDAs) based on the criteria detailed in N.J.A.C. 17:30-1.2. This represented just over nine percent of the zip codes but roughly seventeen percent of the population. 1.567 million residents live in these fifty-five zip codes. Economically Disadvantaged Areas are more densely populated, younger, and more diverse (majority minority) than the state as a whole.

The methodology for the selection of these EDAs is included in this report. There were some limitations to the data and certain assumptions had to be made. Context for these assumptions is provided in this report, including detailed analysis and justification of each assumption. Certain variables[1] in the model required calculation. Those calculations are presented in this report.

A model[2] was constructed in Microsoft Excel 2021 and then rebuilt in IBM SPSS Statistics Version 29. The model included the various criteria that identify a zip code as an EDA. The model is explained in detail in this report.

Observations

Even though there were some missing values in the data sets, modeling showed that these missing values only impacted the results for five zip codes. Further context was sought for these zip codes to see if inclusion might be warranted. That context is detailed in this report. The analysis of the context resulted in five additional zip code being added to those eligible to be EDAs.

Methodology

1. Identify necessary data sources
2. Compile and inspect the data
3. Merge the data
4. Clean the data and evaluate completeness
5. Incorporate necessary calculated variables into the model
6. Build a model in Microsoft Excel

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[1] A detailed table of variables, descriptions, data sources, number of records and number of missing values is included in Appendix A
[2] Excel File Attached

7. Triangulate data by comparing values in the model to raw data sources
8. Rebuild the model in IBM SPSS Version 29
9. Analyze the results
10. Third party triangulation audit by the Office of Innovation, State of New Jersey[3]
11. Issue final report.

Qualifications

These data came from the 2019 American Community Survey conducted by the U.S. Census Bureau (ACS) and were merged on the unique identifier zip code. Since these two data sets had the same number and records and values there were few assumptions that needed to be made. The survey has the limitation of requiring sufficient responses from an individual zip code to estimate a value. Missing values in the data set reflect an insufficient number of responses to draw a statistically significant conclusion about the values for that zip code. In constructing the model, mean values were used without regard to standard deviation or confidence interval.

Assumptions, Limitations & Further Consideration of Variables

Below is an analysis of each variable included in the model used to determine whether a zip code qualified as an EDA.

I. Zip Code

Description:
    595 zip code records provided in the ACS represent all possible zip codes in New Jersey.

II. Median Family Income

Description:
        Represents the median family income for each zip code as represented in the 2019 ACS.

Descriptive Statistics:

Table 1:Descriptive Statistics for Median Family Income

Descriptive Statistic	Value
Number Valid	572
Number Missing	23
Mean	$96,814
Median	$90,444[4]
Std. Deviation	$38,192

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[3] "CRC devised and used a matrix covering the entire state using both statutorily mandated inputs and other data relevant to the equitable distribution of the funds generated by the program. At CRC's request, Neha Bharambe, a data scientist with the Office of Innovation's Analytics and Impact Assessment Team, reviewed both the matrix and its output for statistical rigor and concluded they were valid."

[4] The median income value used from the model is directly from the ACS. It is not calculated in the same way as the simple median of a data set therefore the two values do not align perfectly.

Descriptive Statistic	Value
Range	$235,114
Minimum	$14,886
Maximum	$250,000
Skewness	.796

Figure 1: Distribution of Median Family Income

Histogram

Mean = 96814.95
Std. Dev. = 38192.438
N = 572
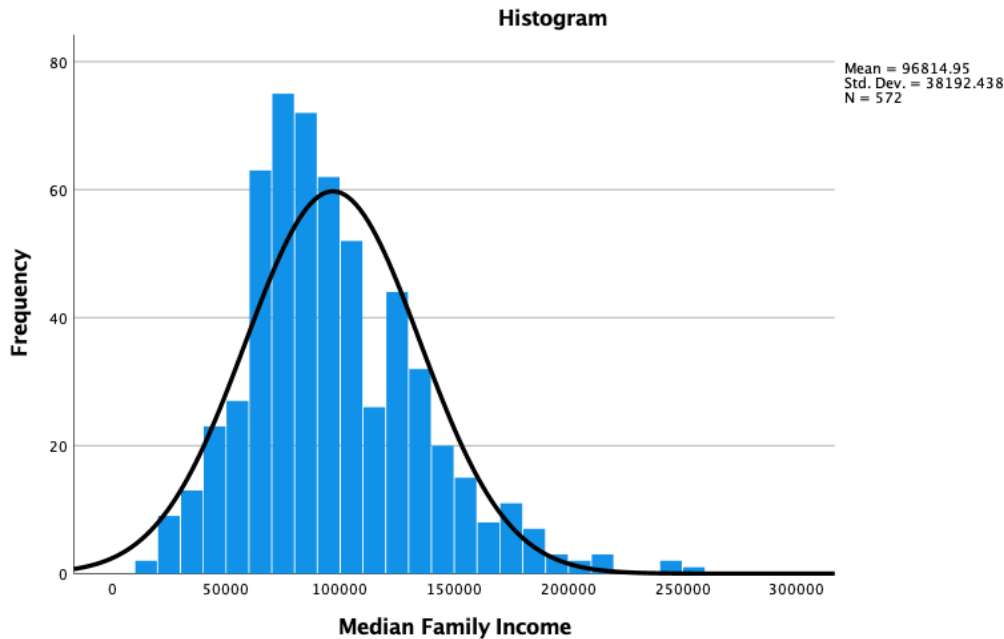
Limitations:

> There were twenty-three missing values for this variable. Of those twenty-three, only four could possibly have qualified, based solely on the percent of health uninsured value that was reported.

> Of those four zip codes, the Commission looked at 2010 Decennial Census data to determine whether any of the four zip codes with missing data would qualify as an Economically Disadvantaged Area. Based on this analysis, zip code 08320 qualifies and the other three zip codes are excluded. The median income from 08320 is $37,092.

Table 2: Context for Zip Codes Missing Median Income Data

Zip Codes missing Median Income data possibly qualified with a value for Health Uninsured			
Zip Code	**Municipality**	**County**	**Context**
07495	Mahwah	Bergen	Shares with Mendham $149,375[5]
07961	Convent Station	Morris	Shares with Fordham Park $128,071
08011	Birmingham	Burlington	Median Income $174,063
08320	Fairton	Cumberland	Median Income $37,092

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[5] These data are from the 2010 Decennial Census as they were not provided in the 2019 ACS Survey

III.   Percent of State Median Income

Calculation Description:

A calculated field that divides the median income value for each zip code by the median income for New Jersey (according to the 2019 ACS) to arrive at the percent of New Jersey's median family income for each zip code.

IV.   Percent Health Insured

Description:

Represents percent of the eligible population with health insurance in each zip code as represented in the 2019 ACS.

Descriptive Statistics:

Table 3: Unemployment Rate Descriptive Statistics

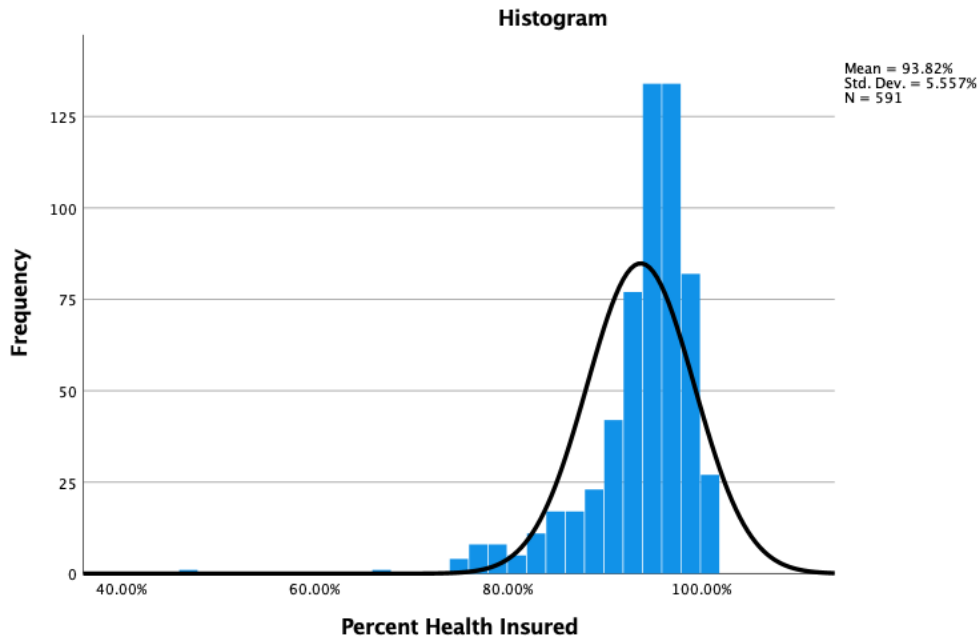**Descriptive Statistics for Percent Health Insured by Zip Code in 2019**

Descriptive Statistic	Value
Number Valid	591
Number Missing	5
Mean	93.82%
Median	95.30%
Std. Deviation	5.58%
Range	53.30
Minimum	46.70%

Maximum   100.00%

Limitations:
　　There were 5 missing values for this variable.

Assumptions:
　　These are discussed in Section II above.

V.　Percent Health Uninsured

Calculation Description:
　　Calculate the percent uninsured as reported in the 2019 ACS by subtracting the percent insured from one.

VI.　State Median Family Income:

Definition:
　　The median family income for the state as reported in the 2019 ACS.

VII.　State Health Uninsured Rate:

Definition:
　　The percent of residents uninsured as reported in the 2019 ACS.

VIII.   Included Zip Code:

Definition:
>   Designates that a zip code was included as an eligible EDA.

Calculation:
>   =IF(AND(G2<=.80,J2>=1.5),"Yes","No")

Calculation Description:
>   If the median income is below 80 percent of the state's average median income, and has a health uninsured rate that is at least 150 percent of the health uninsured rate in the state then include the zip code, otherwise do not.

APPENDICES

# Appendix A: Zip Codes Qualified as Economically Disadvantaged Areas

Table 4: Zip Codes Qualified as Economically Disadvantaged Areas

Zip Codes Qualified as EDA		
Zip Code	**Municipality**	**County**
07820	Allamuchy	Warren
08401	Atlantic City	Atlantic
08302	Bridgeton	Cumberland
08102	Camden	Camden
08105	Camden	Camden
07011	Clifton	Passaic
07018	East Orange	Essex
07201	Elizabeth	Union
07202	Elizabeth	Union
07208	Elizabeth	Union
07206	Elizabethport	Union
08320	Fairton	Cumberland
07022	Fairview	Bergen
07703	Fort Monmouth	Monmouth
07026	Garfield	Bergen
08039	Harrisonville	Gloucester
07111	Irvington	Essex
07304	Jersey City	Hudson
07305	Jersey City	Hudson
07306	Jersey City	Hudson
07307	Jersey City	Hudson
08832	Keasbey	Middlesex
08326	Landisville	Atlantic
07740	Long Branch	Monmouth
07939	Lyons	Somerset
08901	New Brunswick	Middlesex
07104	Newark	Essex
07105	Newark	Essex
07106	Newark	Essex
07107	Newark	Essex
07112	Newark	Essex
07114	Newark	Essex
07047	North Bergen	Hudson
07050	Orange	Essex
07055	Passaic	Passaic
07501	Paterson	Passaic

Zip Codes Qualified as EDA		
Zip Code	**Municipality**	**County**
07502	Paterson	Passaic
07503	Paterson	Passaic
07505	Paterson	Passaic
07513	Paterson	Passaic
07514	Paterson	Passaic
07522	Paterson	Passaic
07524	Paterson	Passaic
08861	Perth Amboy	Middlesex
07060	Plainfield	Union
07063	Plainfield	Union
08232	Pleasantville	Atlantic
08074	Richwood	Gloucester
07608	Teterboro	Bergen
08609	Trenton	Mercer
08611	Trenton	Mercer
08629	Trenton	Mercer
07087	Union City	Hudson
07088	Vauxhall	Union
07093	West New York	Hudson

Appendix B: Map of Economically Disadvantaged Areas
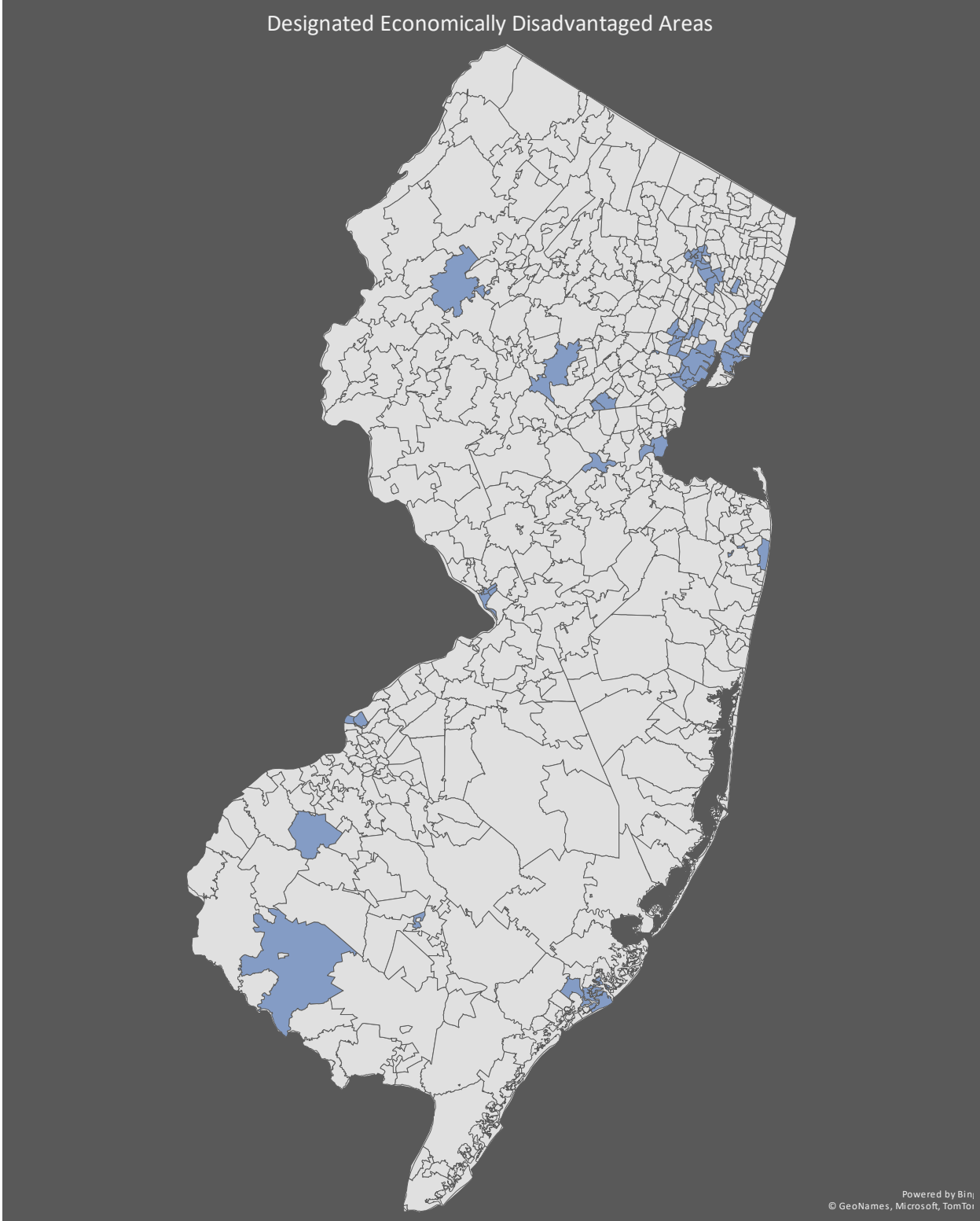
Map 1: Economically Disadvantaged Areas

Appendix C: Demographics of Economically Disadvantaged Areas[6]

Table 5: Demographics of EDAs

Category	EDAs	All NJ Zip Codes
Average Population	28,508	14,928
Gender		
Male	52.%	49%
Female	48%	51%
Age		
Median Age (years)	34	40
Under 18 Years	24.2%	21.8%
18 Years and over	77.9%	78.2%
21 Years and over	74.0%	74.5%
65 Years and over	10.7%	16.6%
Race/Ethnicity		
White	44.3%	69.5%
Black or African American	28.6%	15.1%
Some Other Race	18.6%	7.1%
Asian	4.5%	10.7%
American Indian and Alaska Native	0.4%	0.6%
Native Hawaiian and Other Pacific Islander	0.0%	0.1%
Two or More Races	2.9%	1.9%
Hispanic or Latino of Any Race	46%	20.9%

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[6] Estimations based on ACS