

Homelessness: A Preliminary Evaluation of an Effort to End
Homelessness Durham County, NC

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Abstract

The Durham Center is the public agency in Durham County responsible for connecting persons who are homeless or at risk of homelessness with the services that they need. In February of 2008 the Durham Center began to perform Care Review, where a 10-person Care Review team meets with an individual to develop a personalized system of care to place that person in permanent and/or stable housing and/or keep them there. Key indicators for successful placement by 3 months after initial review are access to prescription medicine services, age, race, primary medical home, and steady income.

Introduction

Homelessness is an issue that is both tragic and growing in the United States.¹ As the economy continues to struggle and the number of home foreclosures continues to rise, homelessness is becoming a reality for more people, and for a different demographic than it has affected in recent history.² Efforts have been made in recent years both locally and nationally to quantify and describe the homeless population. On a local level, Durham County has attempted to describe and quantify its own homeless population, while on a national level the U.S. Department of Housing and Urban development has aggregated local data in an attempt to define the homeless population for each state and the nation as a whole.

In Durham County alone, it is estimated that 2,500 people experience homelessness at some point during each year, with 31% of these being chronically homeless.³ While definitions vary, for Durham County's study, *chronic homelessness* is defined as being continually homeless for more than a year or having four or more episodes of homelessness in the past three years. In the most recently published data on the state of North Carolina, it is estimated that in the year 2007 there were 11,802 persons on a typical day who were homeless, of which 1,645 persons (13.9%) were chronically homeless.⁴ Nationally, these numbers are estimated to be 671,888 and 123,833 (18.4%), respectively. However, based on the current recession, it is estimated that without intervention another 1.5 million Americans over and above these numbers will be homeless at some point over the next two years.⁵

¹ Gargiulo, R. M. (2006). "Homeless and Disabled: Rights, Responsibilities, and Recommendations for Serving Young Children with Special Needs." Early Childhood Education Journal **33**(5): 357-362

² "Homelessness Looms as Potential Outcome of a Recession" National Alliance the End Homelessness. 23 Jan 2009

³ Clasen, Liz. (2006). "The Hidden Cost of Services to the Chronically Homeless in Durham, NC." MPP Paper, Duke University

⁴ Development, U. S. D. o. H. a. U. (2008). "The Third Annual Homeless Assessment Report to Congress."

⁵ Homelessness Looms as Potential Outcome of a Recession. National Alliance to End Homelessness. 23 Jan 2009

Since March of 2005, Durham County has been developing and implementing a 10 year plan to end homelessness in the county. This initiative began with the vision that within 10 years all residents of Durham County would have a place to call home that was permanent, safe, and affordable. This has required Durham County to rethink its current approach to homelessness with four key outcomes in mind: (1) access to permanent supportive housing for all homeless people, (2) quickly moving those who become homeless into permanent housing, (3) helping homeless people acquire the income necessary to obtain and sustain permanent housing, and (4) helping those at risk of homelessness maintain permanent housing through comprehensive prevention services.⁶

While housing an individual or family is the ultimate goal, in many cases homelessness is commingled with other factors that must be addressed if the efforts to prevent future homelessness and maintain a person in permanent housing are to be effective. The Durham Center, a county-funded public agency, plays a key role in this initiative by being the entity that bridges the gap between individuals who are homeless or at risk of homelessness and the housing and preventative services that they need to become/remain housed and with good care. The Durham Center's goal is to develop a system of care for adults and families that eliminates gaps in services and thereby helps to both alleviate homelessness and prevent future recurrences of homelessness. This is accomplished through The Durham Center's Care Review program. Through this program, an individual who is homeless or at risk of homelessness meets with a Care Review team in order to develop a system of care that provides them with the services and resources that are available and for

⁶ 12 Mar 2009. <http://www.durhamtenyearplan.com/plan.pdf>

which they qualify. This can include Medicare, Medicaid, Special Assistance, Supplemental Security Income, food service, legal services, and other medical services, among others

To date, a formal assessment of the Durham Center's approach to an adult system of care has not been undertaken. While a complete quantitative assessment of the program is beyond reach at this point due to the ongoing nature of the program, a preliminary assessment could provide valuable insight regarding the demographic characteristics of the those served and the factors associated with achieving sustained stable housing. Such an assessment would include a description of the demographic characteristics of individuals at the time of entry into care review, the amount and types of services used prior to entry (assessed at the initial review, thereby establishing a baseline), and then noting any changes in this baseline data in the months following the development of a plan of action at the initial review. Moreover, by using the data gathered by the U.S. Department of Housing and Urban Development in conjunction with the Area Resource File, it may be possible to identify counties in the southeastern United States that, based on a regression model, have the highest estimated rate of homeless persons and could benefit from an initiative similar to the one in Durham County if resources permit.

The Goals of this Study

This study has 4 goals.

- (1) To describe the individuals who are being served by the Durham Center's Care Review program;
- (2) To identify baseline characteristics associated with positive outcomes of the Care Review program at 3 and 6 months;

- (3) To identify predictors of homelessness in the southeastern United States level using county-level data from the National Alliance to End Homelessness and the Area Resource File; and
- (4) To identify counties in the southeastern U.S. that may benefit from a program similar to Durham Center's Care Review program.

Background

Causes of Homelessness

Homelessness is an issue for which the causes are varied and are frequently commingled. Commonly identified contributing factors include domestic violence, alcohol/drug abuse, underemployment, physical/sexual/emotional abuse, mental illness, abandonment, illiteracy, chronic poverty, natural disasters, and the lack of affordable housing.⁷ Two of these, mental illness and substance abuse have been seen to be associated with a high proportion of the homeless populations of various areas that have been studied, including Durham County.^{8,9} Moreover, longer periods of homelessness have been found to be associated with one or more of the following: substance abuse, a history of arrest, unemployment, and mental illness.¹⁰

⁷ Gargiulo, R. M. (2006). "Homeless and Disabled: Rights, Responsibilities, and Recommendations for Serving Young Children with Special Needs." *Early Childhood Education Journal* **33**(5): 357-362

⁸ Marinez, T. E., J.D. and Burt, Martha R., Ph.D. (2006). Impact of Permanent Supportive Housing on the Use of Acute Care Health Services by Homeless Adults. Psychiatric Services, psychiatryonline.org.

⁹ Clasen, Liz. (2006). "The Hidden Cost of Services to the Chronically Homeless in Durham, NC." MPP Paper, Duke University

¹⁰ Caton, C. L. M. e. a. (2005). "Risk Factors for Long-Term Homelessness: Findings From a Longitudinal Study of First-Time Homeless Single Adults." *American Journal of Public Health* **95**(10): 1753-1759.

Solutions to Homelessness

In recent years there has been an effort to find ways to end homelessness not just in Durham County but across the nation as a whole. One approach that has seen positive outcomes is what is known as the “Housing First” approach. Under this system, agencies have found it to be cost-saving to house homeless persons in permanent housing rather than to allow them to remain homeless. Moreover, agencies have found that providing supportive services helps to maintain stable housing for an individual while also cutting overall expenditures by reductions in costs associated with a person’s housing status. These include, but are not limited to, shelter usage, hospital visits, and other medical and community services.¹¹

Among homeless individuals, mental illness has been found to be one of the chief factors associated with a high rate of emergency department usage.¹² Because this subpopulation enters health care at the point with the highest associated costs and also incurs the greatest costs, some programs have specifically targeted this subpopulation with a housing first approach. By placing these persons in permanent, supportive housing, in many cases their quality of life and compliance with medical treatment has been shown to offset the costs of associated with placing them in housing.

The potential for positive results from a “Housing First” approach was illustrated in a study done by New York City, completed in 1999. This was a decade-long study that followed 4,679 mentally ill homeless persons in NYC who had been placed in service-enriched housing. This study began by quantifying the cost of services to these individuals

¹¹ Clasen, Liz. (2006). "The Hidden Cost of Services to the Chronically Homeless in Durham, NC." MPP Paper, Duke University

¹² Kushel, M.D., Margot B. “Emergency Department Use Among Homeless and Marginally Housed: Results From a Community-Based Study.” American Journal of Public Health. May 2002, Vol 92, No. 5, p. 778-784

for the two years before being placed in the program. Data was gathered from various organizations and government agencies that interacted with the population of interest. The study then attached the average cost per day for services to the mean number of days each person in the sample interacted with each organization. Total costs over the two years prior to entry in the program were estimated to be \$40,448 per year (Table 1).

Table 1: NYC Study Metrics ¹³

	Mean Days Used (2 Years Pre- Housing)	Per Diem (1999 \$)	Annualized Cost	% of Total Annualized Cost
Health Related Services			\$34,778	85.98%
Office of Mental Health	57.3	\$437	\$12,520	30.95%
Heath & Hospitals Corporation	16.5	\$755	\$6,229	15.40%
Medicaid – Inpatient	35.3	\$657	\$11,596	28.67%
Medicaid – Outpatient	62.2	\$84	\$2,612	6.46%
Veterans Administration	7.8	\$467	\$1,821	4.50%
Other Services			\$5,670	14.02%
Dept. of Homeless Services	137	\$68	\$4,658	11.52%
Dept. of Correctional Services	9.3	\$79	\$367	0.91%
Dep. Of Correction	10	\$129	\$645	1.59%
Total			\$40,448	

A control of 3,338 individuals who continued to use the shelter system was established. After two years in permanent housing, the study estimated that the average savings for each person who had been placed in permanent housing was \$12,145 per year when compared to the control group, which was more than the cost associated with providing permanent supportive housing. Of these savings, the largest portions came from a reduction in health services (72%) and from a reduction in shelter usage(23%).¹⁴

¹³ Clasen, Liz. (2006). "The Hidden Cost of Services to the Chronically Homeless in Durham, NC." MPP Paper, Duke University

¹⁴ Clasen, Liz. (2006). "The Hidden Cost of Services to the Chronically Homeless in Durham, NC." MPP Paper, Duke University

Another study conducted in the city of San Francisco, CA between October of 1994 and June of 1998 followed 236 single adults with mental illness who entered supportive housing. The study found that housing placement significantly reduced the percentage of individuals with an emergency department visit (53% to 37%), the average number of visits per person (1.94 to .86), and the total number of emergency department visits (56% decrease, from 457 to 202) when comparing the 12 months before moving into permanent supportive housing to the 12 months following moving in. In regards to hospitalizations, permanent supportive housing placement significantly reduced the annual likelihood of being hospitalized (19% to 11%) and the mean number of hospital admissions per person (.34 to .19 admissions per resident). Furthermore, providing permanent supportive housing to homeless people with psychiatric and substance use disorders reduced their use of costly hospital emergency department and inpatient services.¹⁵

The medical costs associated with homeless individuals are in most cases absorbed by the local, state, and national government. This means that a reduction in costs associated with these individuals helps to reduce government expenditures in this area, either allowing an overall reduction in government spending or allowing the funds to be used in other areas of need. Moreover, besides being the highest-cost subpopulation, the mentally ill homeless population has also been found to be the group with some of the largest service gaps among homeless individuals, meaning that they have the greatest potential for improvements to their quality of care.¹⁶ A recent study of HIV patients with combined mental illness and substance abuse disorders (i.e., “triply-diagnosed”) showed that medical expenditures were \$889 per

¹⁵ Marinez, T. E., J.D. and Burt, Martha R., Ph.D. (2006). Impact of Permanent Supportive Housing on the Use of Acute Care Health Services by Homeless Adults. Psychiatric Services, psychiatryonline.org.

¹⁶ Cunningham, Peter, et al. “The Struggle To Provide Community-Based Care To Low-Income People With Serious Mental Illness.” Health Affairs, Vol. 25, No. 3, p. 694-705

month lower among those with stable residence.¹⁷ This illustrates the possibility that compared to how they now are treated in the highly fragmented medical system, those with the greatest service needs may yield the greatest potential savings.

To effectively combat homelessness, however, programs must be developed that target the general homeless population and not just those who will net the greatest savings. On the positive side, a program that has been developed to comprehensively meet the needs of the mentally ill subpopulation will most likely contain most (if not all) aspects of a program that would provide housing and preventative services to the general homeless population of a given area. Therefore, if a program was developed in such a way that it provides access to a wide array of services and was able to be customized to an individual's needs, it may be able to combat homelessness in a holistic approach if opened up to the homeless population as a whole instead of just the subpopulation(s) that would net the greatest savings. However, it is much harder for such a comprehensive program to be cost-saving or even cost-justifiable, especially in anything other than in very large cities with fully developed infrastructures, such as New York City and San Francisco.

This being said, it could be argued that The Durham Center's care review program could provide a model for programs in smaller or middle-sized counties that are aimed at the general homeless population.

Homelessness in Durham County

Durham County began their 10-year plan by attempting to describe the homeless population of Durham County, which was estimated to include more than 2,500 different people per year. Of these, 21% are veterans, over 30% have severe and persistent mental

¹⁷ Conover CJ, Weaver M, Ang A, Arno P, Flynn PM, Ettner SL, Costs of Care for People Living with Combined HIV/AIDS, Chronic Mental Illness, and Substance Abuse Disorders, AIDS Care (Forthcoming 2009)

illness, and 54% have chronic substance abuse/addiction. Furthermore, 18% of homeless individuals are dually diagnosed with multiple disabilities (most often including mental illness and substance abuse) and this subpopulation is more likely than any other group to utilize medical, mental health, and substance abuse services at the most expensive points of entry: the emergency room and detoxification facilities.¹⁸

One of the greatest issues in Durham County is that 31% of homeless individuals are chronically homeless, which is up to three times the estimated national average. According to the Department of Health and Human Services, while this population makes up 10%-20% of the overall homeless population of our nation, they consume approximately 50% of the total resources targeted to relieve homelessness.¹⁹ Therefore, any effort to combat homelessness should include this population because of the potential savings in tax-financed public service usage. However, to *only* target this subpopulation, much like targeting only the mentally ill, would leave unaddressed a sizable fraction of the homeless population in Durham County.

The Cost of Homelessness in Durham County

In 2005, the total costs associated with a person being homeless in Durham County were estimated using a sample of 147 individuals who were deemed chronically homeless. Of these individuals 82% were male, 78% were black, 82% had some form of disabling addiction, and 33% were mentally ill. Moreover, 20% were dually diagnosed as having both

¹⁸ Clasen, Liz. (2006). "The Hidden Cost of Services to the Chronically Homeless in Durham, NC." MPP Paper, Duke University

¹⁹ Department of Health and Human Services. Ending Chronic Homelessness, Strategies for Action, A Report from the Secretary's Work Group on Ending Chronic Homelessness, 2003

an addiction and mental illness. The cost incurred by these individuals in one year was found to be over \$1.5 million (approximately \$10,334 per individual).²⁰

Housing the Homeless – Quantifying the Costs

To house homeless individuals and families, Durham County is making available at least 415 units for permanent housing over the course of 10 years. This includes building 150 units, at a rate of 15 units per year and a cost of \$75,000 per unit (for a total of \$11.25 million over 10 years). The remaining units will require securing funding from other sources, such as section 8 housing vouchers and working with community organizations to provide other low-cost ways of housing both individuals and families.

For individuals who do become homeless, Durham County is seeking to decrease their length of stay in emergency shelters to less than 45 days and increase the number of people exiting shelters into permanent or transitional housing. This requires the assessment and evaluation of individuals as they become homeless and then moving them from shelters into transitional and/or permanent housing. In cases where transitional housing is needed, all efforts must be made to increase the number of people who move from transitional housing into permanent stable housing. This requires creating a system of care that is able to effectively move individuals through emergency and transitional housing and into permanent housing while providing health, legal, food and other social services to help keep them housed.

The Durham Center – A Crucial Part of the Solution

The Durham Center functions at a key point in the process of providing a comprehensive system of care. This is the agency which is responsible for ensuring that the

²⁰ Clasen, Liz. (2006). "The Hidden Cost of Services to the Chronically Homeless in Durham, NC." MPP Paper, Duke University

citizens of Durham County who seek help are able to obtain the services available to them. While The Durham Center does not provide services itself, it connects individuals with available services and also the network of private providers that contract with The Durham Center. These include mental health, substance abuse, developmental disability, education, legal, medical, and food services in Durham County.²¹

The Durham Center's role in the 10-year plan is chiefly through what is known as Care Review. Individuals who come through Care Review have been referred by a person, organization or agency in Durham County and have been deemed homeless or are at risk of becoming homeless. These individuals have been deemed by the referrer as in need of a more comprehensive system of care that includes more than just housing. This is the role of Care Review. These individuals typically have issues commingled with their homelessness that are in need of attention and that may well be factors contributing to their homelessness, such as mental illness, substance abuse, and developmental disability, among others. In Care Review, an individual meets in person with a Care Review team consisting of approximately 10 people. While headed by a Durham Center employee, the members of this team include persons from a wide array of agencies and organizations in Durham County that together help to identify the needs of the individual and create an action plan to meet those needs.²²

This is a complete approach to care that involves multiple parts. The Durham Center, understanding the importance of permanent housing for both the individual and government, works in conjunction with other organizations and agencies in Durham County to find permanent (and if need be, transitional) housing for individuals. While the goal in most

²¹ 12 Mar 2009. <http://www.durhamcenter.org>

²² 10 Mar 2009.

http://www.durhamcenter.org/uploads/docs/documents_forms/system_of_care/adult_mental_health/What_to_Expect_at_Care_Review.pdf

cases is permanent housing, in some cases this is not best for the current needs of the individual in Care Review. Therefore, other forms of housing are deemed acceptable and considered “stable,” such as living with family/friends or a group home. Moreover, to help keep these individuals maintain permanent and/or stable housing, Care Review determines eligibility for government programs such as Supplemental Security Income, Special Assistance, Medicaid and Medicare, among others. Furthermore, access to local services such as mental health, substance abuse, developmental disability, medical, legal and food services are coordinated with community partners and/or contracted providers. The goal of these efforts is to create an adult system of care that provides a seamless array of support and services for individuals and families in Durham County and helps to improve quality of life and prevent future periods of homelessness.

As stated above, a preliminary assessment of the Durham Center’s Care Review program could provide valuable feedback as to the demographic and behavioral characteristics of those being served and helped in finding housing medical services and social services. Moreover, a successful program of this type could help to combat homelessness in other areas around the southeast; therefore identifying the counties that could be most in need would be the first step in seeking to find a solution to homelessness. In the following sections I describe the methodological approach to these analyses, present the results, and discuss the implications of the findings.

Methods

It should be stressed that while this study is a rigorous analysis of the Durham Center’s Care Review data to date, not enough data has been collected to date to determine

casual relationships or estimate quantitatively the downstream effects of Care Review on the effectiveness of Durham's overall initiative. This does not mean, however, that an analysis of the program to date is not of benefit. This study will begin by attempting to thoroughly describe the individuals who are being served by the Durham Center's Care Review program in terms of demographic, socioeconomic and behavioral characteristics. Subsequently, the baseline data will then be used to determine if there are any associations of these characteristics with the primary outcome of permanent/permanent supportive housing and the secondary outcome of stable housing. For this study, such associations will be explored for individuals who have reached 3 months since their initial care review.

Next, the analysis will be extended to the southeastern United States. Point-in-time homeless data will be used in conjunction with demographic and healthcare data from the Area Resource File to identify factors associated with homelessness. The homelessness data was collected for a single night in January of 2007²³ by continuums of care, which are responsible for helping provide services and support to the homeless in a given area. Then an out-of-sample prediction will be formulated to estimate the rate of homelessness in the counties for which a continuum of care did not individually collect a homeless count data. The counties deemed to have the highest estimated rate of homelessness will then be highlighted as possibly requiring more attention in addressing issues of homelessness in those counties.²⁴

²³ 8 Mar 2009. http://www.endhomelessness.org/files/2158_file_counts_2_Appendix_C.xls

²⁴ It should be noted that, in theory, all counties have been sampled by a continuum of care for the U.S. Department of Housing and Urban Development. However, many counties were combined under one continuum of care or under a category of "balance of state." Neither of these are helpful for counties that desire to work to end homelessness in their county since they do not provide individual county data but only the number of people served by a particular continuum of care that can span multiple counties. Therefore estimates of county-level homelessness may be helpful in this regard, which is the point of the second part of this analysis.

Data Sources

Durham Center Care Review program

Participation in The Durham Center's Care Review program is open to any individual who is deemed by the Durham Center to have gaps in their system of care and therefore could benefit from a review of their care to determine where improvements can be made. Participants have been referred to the Durham Center by individuals, organizations and agencies in Durham County, including Urban Ministries, Open Table Ministry, and the Durham Police Department²⁵, among others. Care review was conducted at either the Durham Center or Urban Ministries. The Durham Center's program is seen as part of an effort to end homelessness and is not meant to be a study on the effectiveness of such a program. Therefore no control group was assigned for Care Review. Participants are accepted on a rolling basis, with the first Care Review being conducted in February of 2008.

As of March 23, 2009, Durham Center baseline data was available for 106 participants, 3 month data for 64 participants, and 6 month data for 34 participants. Data was collected from participants at the initial care review and (where appropriate for the given variable) each subsequent review, including gender, race, age, housing status, source(s) of income, health benefits/insurance, criminal history, employment status, history of psychiatric hospitalization, whether or not a participant had a primary care medical home, and whether or not participants had access to prescription medication services.

²⁵ This is partnership with the Durham Police Department and is through their Bullseye program, where they have made an attempt to concentrate resources in a two mile area in northeast central Durham that is responsible for 20% of Durham's overall crimes.

Homelessness Data from Housing and Urban Development

Continuums of care are required to provide the U.S. Department of Housing and Urban Development with information on sheltered and unsheltered homeless persons as part of their HUD application for funding. This data was collected by each continuum of care on a single night in January of 2007 as a point in time estimation. Continuums of care vary in their coverage of number of counties. Many counties have their own continuum of care, while some rural regions may have one continuum of care for a collection of counties. This data was obtained from the website of the National Alliance to End Homelessness.²⁶

Data from the U.S. Department of Housing and Urban Development on homeless counts from 2007 were obtained for all continuums of care in the southeast. Of these, 85 observations were included in the analysis (See Appendix Table 1). These observations were merged with the corresponding data in the ARF for each county to form one dataset for analysis. This merge was done based on the state and county FIPS codes.

Area Resource File

Area Resource File data is published by the U.S. Department of Health and Human Services. This file provided demographic characteristics and healthcare related variables for each county in the southeast. For this analysis, the southeast was defined as Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. The ARF published in 2006 was used in this analysis.²⁷

²⁶ http://www.endhomelessness.org/files/2158_file_counts_2_Appendix_C.xls. 7 Mar 2009

²⁷ In some cases data was not available for a given variable for 2006. In these cases the most current data was used for that variable.

Statistical Analysis

The Durham Center

The present study of the Durham Center's Care Review program can be considered observational, since it lacks random assignment of participants and, therefore, a control group. For baseline characteristics, categorical variables are presented as frequencies and continuous variables are presented as means with standard deviations. For comparisons by length of follow-up, I used chi-square tests for categorical variables and t-tests for continuous variables. The primary outcome of interest was whether or not a participant had obtained and maintained permanent/permanent supportive housing between the initial care review and the 3 month follow-up. A secondary analysis was also performed with stable housing as the outcome of interest. This variable, while similar to housing type, does not assume that permanent/permanent supportive housing is the ideal outcome for all persons who come through care review. This is a more inclusive outcome, allowing for an individual to be seen as being in a positive housing situation (such as with family, a group home, transitional housing) that may be the best option for their situation.

Univariate and multivariable regression equations were estimated for both outcome variables (permanent/permanent supportive housing and stable housing). Independent variables used in the regressions were: white or non-white, age, steady income source (yes or no), health benefits/insurance (yes or no), criminal history (yes or no), employment status (employed or unemployed), history of psychiatric hospitalization (yes or no), primary care medical home (yes or no), and access to prescription medication services (yes or no). In the univariate regressions, all variables used were measured at baseline and statistical significance was defined at $0.15 > z$ to identify variables for inclusion in the final,

parsimonious multivariable regression model. A logistical receiver operator characteristics curve (LROC) was calculated to assess the discrimination of the model.

Area Resource File and HUD Homeless data

Point in time homeless data collected by the National Alliance to End Homelessness for a single night in January of 2007²⁸ was used in conjunction with demographic and healthcare data from the Area Resource File to identify factors associated with homelessness. Using the HUD data, a multivariate logistical model was fit to the data and then used to predict homelessness in counties not individually sampled by a continuum of care. Using these predictions, counties were identified that may benefit from increased attention to issues of homelessness and, perhaps, the development of a program similar to that of Durham County.²⁹

For the 85 individual counties with homeless counts, univariate logistical models were fit for each independent variable with the outcome of interest being the rate of homelessness in the county. Variables considered for the final logistical regression included the % of the population that was male, median age, unemployment rate (%), number that receive Supplemental Security Income (per 1000), number that received food stamps (per 1000), number eligible for Medicare (per 1000), people 25+ years old with less than 9 years of school (% of population), % of population that is considered urban, emergency room visits (per 1000), Medicare inpatient days (per 1000), Medicaid inpatient days (per 1000), emergency outpatient visits (per 1000), income per capita, and persons in poverty (% of

²⁸ http://www.endhomelessness.org/files/2158_file_counts_2_Appendix_C.xls

²⁹ I am not trying to determine the feasibility of such a program in these counties, only if there is possibly a need. In other words, this is not an analysis that will attempt to determine if there are the resources available in a given county for such a program, but only if there is a need.

population). Continuums of care that spanned more than one county and those with extremely high rates of homelessness that could not be independently confirmed were dropped from the analysis (n=63).

Using the variables from the ARF that were correlated with homelessness, a multivariate logistical regression model was built. The coefficients from this model were applied to data from 1301 counties not directly individually sampled by HUD in order to predict the rate of homelessness in counties across the southeast that were not individually recorded in the HUD data. These counties were then ranked based on their estimated rate of homeless to identify areas that could possibly benefit from a program similar to that of Durham County.

Results

Descriptive Statistics

Durham

Table 3 presents baseline sample demographics for all participants in the Care Review program, along with participants that have completed their 3 month care review and those who have not. For this analysis, the group who has completed their 3 month care review is the population of interest. The population is predominantly non-white (61%), with a mean age of 40.6 years, and the majority had a criminal record (70%). Almost all participants were unemployed at baseline (92%) and most had access to prescription medicine services (70%). Moreover, only 7% were in stable housing at baseline and only 18% were in permanent/permanent supportive housing at baseline. Of the 64 participants that had reached

3 months, 53% were in stable housing and 41% were in permanent/permanent supportive housing. (Table 4)

Table 3. Baseline Descriptive Statistics for Durham Center Participants

	Total (n=106)	Individuals w/ 3mo follow-up (n=64)	Individuals w/o 3 mo follow-up (n=43)	p-value
Male, No. (%)	58 (55)	33 (52)	25 (60)	0.29
Age, mean (SD)	39.6 (1.23)	40.6 (1.53)	38.1 (2.1)	0.33
Ethnicity, No. (%)				0.99
White	63 (59)	26 (39)		
Non-White	42 (40)	39 (61)		
Missing	1 (1)	0		
Steady Income, No. (%)	42(40)	24 (38)	17 (40)	0.88
Health Benefits		32 (50)	24 (57)	0.47
Criminal History, No. (%)				0.94
No	30 (28)	18 (28)	12 (29)	
Yes	74 (70)	45 (70)	29 (69)	
Missing	2(2)	1 (2)	1 (2)	
Some Employment, No. (%)	10 (9)	5 (8)	5 (12)	0.48
History of Psychiatric Hospitalization, No. (%)				0.02
No	52 (49)	26 (41)	26 (62)	
Yes	51 (48)	36 (56)	15 (37)	
Missing	3 (3)	2 (3)	1 (1)	
Primary Care Medical Home, No. (%)				0.35
No	49 (47)	26 (41)	11 (26)	
Yes	56 (53)	35 (55)	26 (50)	
Missing	3 (3)	3 (3)	5 (12)	
Access to Prescription Services, No. (%)				0.86
No	31 (29)	15 (23)	16 (38)	
Yes	70 (66)	45 (70)	25 (60)	
Missing	5 (5)	4 (7)	1 (2)	
Stable Housing (%)				0.86
No	99 (93)	39 (94)	39 (90)	
Yes	7 (7)	3 (6)	4 (10)	
Missing				
Permanent/Permanent Supportive (%)				0.78
No	87 (82)	52 (81)	35 (81)	
Yes	19 (18)	12 (19)	7 (16)	

Table 4. Individual's Housing Status at 3 months

		<u>n = 64</u>
Stable housing at 3 mo., No. (%)		
No		30 (47)
Yes		34 (53)
Perm/Perm Supportive Housing at 3 mo., No. (%)		
No		38 (59)
Yes		26 (41)

Southeast Homeless Data

Table 5 presents demographics characteristics for all counties in the southeast included in the analysis. When comparing CoC counties to non-CoC counties, differences of interest include unemployment rate, the number of Supplement Security Income recipients, the number of food stamp recipients, persons age 25+ w/<9 years of school, % urban population, Medicare inpatient days, and income per capita. All differences were significant ($p < 0.05$) except for Medicaid inpatient days and the number of ER visits per 1000 residents.

Table 5. Baseline Demographic Characteristics for Southeast Homelessness Assessment

	Total (n=1386)	CoC counties (n=85)	Other counties (n=1301)	P Value for Tests of Between-Group Difference
(2004) % Male, % (SD)	50 (0)	49 (0)	50 (0)	0.01
(2000) Median Age, No. (SD)	37 (.1)	34.8 (.5)	36.9 (.1)	0.00
(2005) Unemployment Rate, % (SD)	5.9 (.1)	4.7 (.2)	6.0 (.1)	0.00
(1991) SSI Recipients per 1000, No. (SD)	35 (1)	19 (1)	36 (1)	0.00
(2003) Food Stamp Recipients per 1000, No. (SD)	127 (2)	92 (5)	130 (2)	0.00
(2005) Eligible for Medicare per 1000, No. (SD)	177 (2)	145 (5)	180 (2)	0.00
(2000) Persons 25+ w/<9 years of school per 1000, No. (SD)	68 (3)	68 (3)	121 (2)	0.00
(2000) % Urban Population, % (SD)	40 (1)	84 (2)	35 (1)	0.00
(2004) ER visits per 1000, No. (SD)	416 (17)	497 (29)	410 (18)	0.2173
(2004) Medicare inpatient days per 1000, No. (SD)	253 (11)	426 (28)	242 (11)	0.00
(2004) Medicaid inpatient days per 1000, No. (SD)	161 (11)	170 (18)	160 (12)	0.84
(1997) Emergency outpatient visits per 1000, No. (SD)	356 (11)	470 (27)	348 (11)	0.01
(2004) Income per capita, No. (SD)	23824 (172)	31349 (776)	23333 (167)	0.00
(2004) Persons in poverty per 1000, No. (SD)	164 (1)	142 (5)	166 (2)	0.00

Regression Results

Durham primary analysis of permanent housing at 3 months (Table 6)

When univariate logistical regression models were constructed with housing type at 3 months as the outcome, only race ($0.141 = P > |z|$), age ($0.016 = P > |z|$), primary care medical home ($0.007 = P > |z|$), and access to prescription medicine services ($0.059 = P > |z|$) were found to be statistically significant and were included in the multivariable model. The results suggest that, controlling for race, age and primary care medical home, access to prescription medications quadruples the odds of achieving permanent/permanent supportive housing at 3 months. Controlling for age, primary medical home, and access to

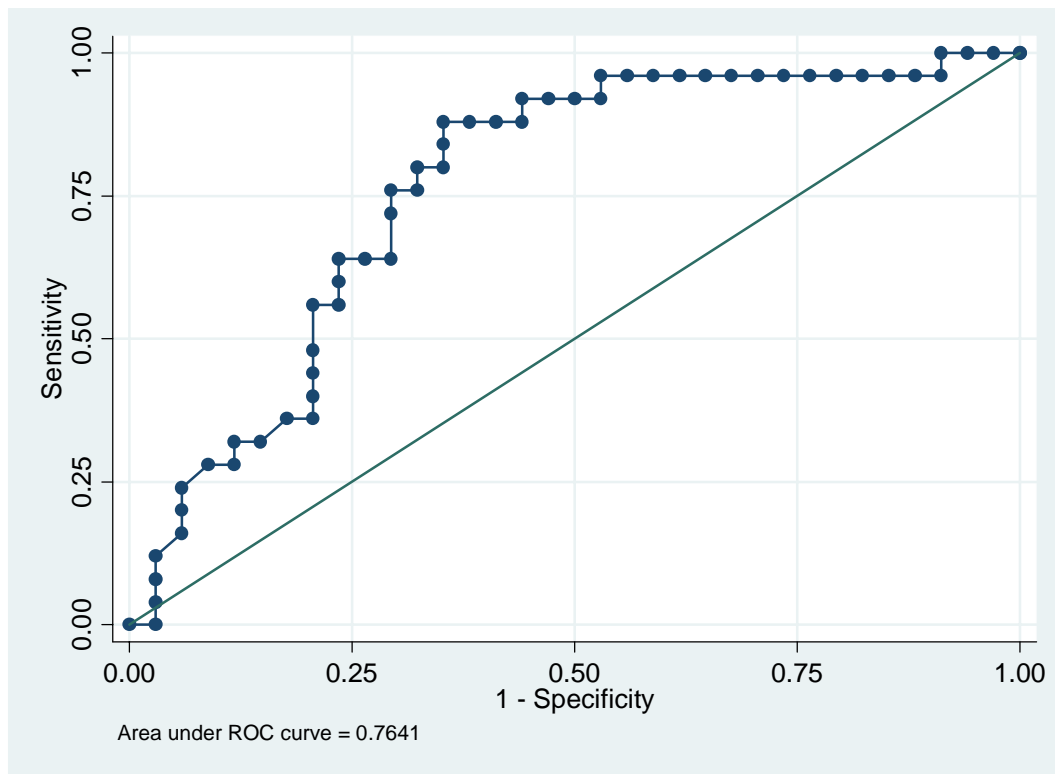
prescription services, white participants were less likely to achieve permanent/permanent supportive housing at 3 months than non-white participants, although the estimate was not significant at $p < 0.05$. Note that age did not have a large effect on permanent housing. A medical home more than doubled the odds of permanent/permanent supportive housing at 3 months, controlling for race, age, and access to prescription medication ($p = 0.198$).

Table 6. Logistical Regression of Predicting Permanent Housing at 3 months

	<u>Univariate results</u>			<u>Multivariable results</u>		
	<u>Odds Ratio</u>	<u>SE</u>	<u>P > z </u>	<u>Odds Ratio</u>	<u>SE</u>	<u>P > z </u>
White	0.461539	0.242314	0.141	0.42228	0.270351	0.178
Age	1.059876	0.025503	0.016	1.040935	0.027703	0.21
Medical Home	2.647059	1.423958	0.07	2.412934	1.693986	0.198
Access to Rx	3.826087	2.720549	0.059	2.919601	0.270351	0.178
				Pseudo R-squared =		0.1409

The L ROC graph (Figure 1) for the logistical regression had an area of 0.7641 suggesting that the model will rank a randomly selected individual with a positive outcome higher than a randomly chosen person with a negative outcome about 76% of the time.

Figure 1. LROC Graph



Durham secondary analysis of stable housing status at 3 months

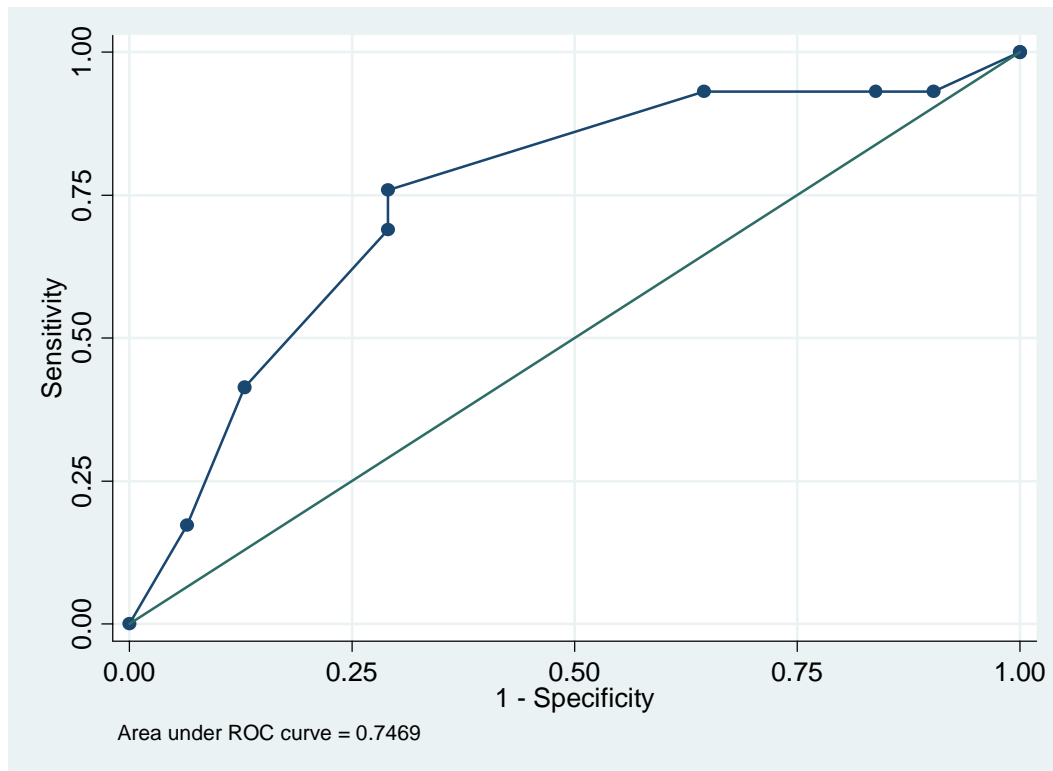
When univariate logistical regression models were constructed with stable housing at 3 months as the outcome, only race ($0.095 = P > |z|$), steady income ($0.095 = P > |z|$), and access to prescription medicine services ($0.06 = P > |z|$) were found to be statistically significant and were included in the multivariable model. The results suggest that, controlling for race and the presence of an income source, access to prescription medications more than triples the odds of achieving stable housing at 3 months. When controlling for income and access to prescription medication services, white participants were less likely to achieve stable housing at 3 months than non-white participants. Controlling for race and access to prescription services, a steady income, more than doubled the odds of stable housing at 3 months ($p=0.11$). (Table 7.)

Table 7. Logistical Regression of Predicting Housing Status at 3 months

	<u>Univariate results</u>			<u>Multivariable results</u>		
	<u>Odds Ratio</u>	<u>SE</u>	<u>P</u>	<u>Odds Ratio</u>	<u>SE</u>	<u>P > z </u>
White	0.416667	0.218502	0.095	0.365575	0.219101	0.093
Steady Income	2.4	1.25857	0.095	2.506267	1.442076	0.11
Access to Rx	3.4375	2.256501	0.06	3.926588	2.789457	0.054
				Pseudo R-squared =		0.1116

The L ROC graph (Figure 2) for the logistical regression had an area of 0.7469 suggesting that the model will rank a randomly selected individual with a positive outcome higher than a randomly chosen person with a negative outcome about 75% of the time.

Figure 2. LROC Graph



Southeast Homeless Data

When univariate logistical regression models were constructed for the 85 counties with homeless counts, % of population male ($0.131 = P > |z|$), median age ($0.163 = P > |z|$), proportion of population eligible for Medicare ($0.016 = P > |z|$), proportion of population 25+ w/<9 years of school ($0.157 = P > |z|$), and total Medicaid inpatient days ($0.003 = P > |z|$) were found to be statistically significant. In the multivariate logistical regression model, an increase in the % of the population that was male had the greatest corresponding increase in the estimated rate of homelessness, controlling for all other variables. This result, however, was not statistically significant ($p > 0.05$). Only % of count residents 25+ years old with <9 years of school and # of Medicaid inpatient days per 1000 residents were found to be statistically significant for the multivariate regression. Interestingly, an increase in the % of residents 25+ with <9 years of school was found decrease the rate of homelessness instead of increase it. (Table 8)

Table 8. Univariate and Multivariate Regression of HUD homeless data and ARF characteristics

	<u>Univariate results</u>		<u>Multivariable results</u>		
	<u>Coef. (SE)</u>	<u>P > t for Coef.</u>	<u>Coef.</u>	<u>SE</u>	<u>P > t </u>
% Male	-0.1744341 (.1144069)	0.131	0.1131289	0.136782	0.41
Median Age	0.0377759 (.0268428)	0.163	0.0162181	0.042576	0.704
% Eligible for Medicare	0.0620151 (.0251811)	0.016	0.0411763	0.042202	0.332
% 25+ yrs old with <9 yrs of school	-0.0530424 (.0371682)	0.157	-0.0627002	0.036333	0.088
Medicaid Inpatient Days per 1000 residents	0.002066 (.0006645)	0.003	0.0022176	0.00087	0.013
			Pseudo R-squared =		0.1116

The out of sample prediction for counties in which homelessness was not individually measured by a continuum of care resulted in predictions of the highest rate of homelessness in: Bedford City, VA; Miller, GA; Evans, GA; Crittenden, KY; and Falls Church City, VA (Table 9). (For a complete list of all estimations, see Appendix Table 2.)

Table 9. Counties estimated to have the 20 highest rates of homelessness

State	County	Predicted # Homeless (per 1000)
VA	Bedford City	14.8118
GA	Miller	11.4802
GA	Evans	10.6642
KY	Crittenden	10.4945
VA	Falls Church City	9.6031
GA	Early	8.9451
AR	Lawrence	8.729
VA	Norton City	8.6923
TX	Dallam	8.4382
GA	Randolph	8.3765
GA	Union	7.9284
GA	Lanier	7.6717
AR	Van Buren	7.0262
GA	Mitchell	6.867
AL	Fayette	6.227
MA	Choctaw	6.1753
TX	Upton	6.0425
MS	Jasper	5.8058
MS	Cook	5.7436
NC	Cherokee	5.6813
NC	Durham	2.1831

Comments

The results from the Durham analysis suggest that in both multivariate regression models, having access to prescription medicine services has the highest odds of helping a participant under Care Review obtain the outcome of interest (either permanent/permanent supportive housing or stable housing). It should be noted that only in the stable housing regression model was this result statistically significant ($p < 0.10$). Moreover, controlling for other variables in the models, non-white participants had greater odds of obtaining the outcome of interest in both models.

The preliminary results of the Durham's Center's Care Review program are encouraging. Of those that have reached 3 months ($n=64$), 53% have obtained stable housing and 41% are in permanent/permanent supportive housing. This compares to 0% and 19% at baseline, respectively. While not analyzed in this paper, these percentages have continued to rise for those who have reached 6 months. Of the 33 people who have reached 6 months since initial Care Review, 64% have obtained stable housing and 55% are in permanent/permanent supportive housing.

While these results are encouraging, given the small sample sizes used in this paper, the attempt to create a regression model to predict who is most likely to succeed is very limited. This analysis was performed on individual's data only 3 months since initial Care Review. As individuals get further from the initial Care Review it will be important to see if the proportion of individuals in stable and/or permanent/permanent supportive housing continues to increase the further out from initial Care Review an individual gets.

Moreover, due to the small sample size, the ability of the regression models to accurately predict the outcomes of interest is very limited. As the sample size for individuals

at least 3 months from Care Review continues to increase, it will be important to re-run this analysis and determine if the regression models accurately predict the outcomes of interest or if a new models should be developed that can accomplish this more accurately.

In the analysis of homelessness in the southeast, when controlling for all other variables, the % male of the population of a county seems to have the greatest affect on the estimated homeless number of homeless in that county, however, this was not significant ($p < 0.10$). The only independent variables that were statistically significant in the multivariate regression were the number of Medicaid inpatient days per 1000 county residents and the % of the population 25+ years old with less than 9 years of school. Interestingly, when controlling for all other variables in the regression model, an increase in the % of the population 25+ years old with less than 9 years of school results in a decrease in the estimated number of homeless.

When the regression model was used to estimate the rate of homelessness in the southeast, the results ranged from 14.812 per 1000 residents (Bedford City, VA) to -0.804 per 1000 residents (Starr, TX). The fact that the out of sample prediction produced negative numbers displays one of the limitations of this paper. However, the main purpose of this part of the analysis was to produce a table that estimated the counties with the highest rates of homelessness, which are positive numbers and, therefore, valid in the scope of this paper. Moreover, this analysis is not meant to determine the feasibility of a program such as the one in Durham County. This would require an in-depth study of the infrastructure of each county and the funding available to each county and also a comparison of these characteristics with Durham County. For example, Durham's actual rate of homelessness is 2.2 persons per 1000 residents and is therefore much lower than the counties predicted to have the highest rate of

homelessness. This could, and probably would, affect the approach to homelessness in the given county; however Durham's initiative may be a good place to start. These questions are beyond the scope of this paper but would be the logical follow-up to this analysis.

Limitations

The limitations of this analysis are many and varied. First, in regards to the Durham Center analysis, there was no control group to which the Care Review participants could be compared. Therefore nothing can be said as to the effectiveness of the program in comparison to, say, homeless shelters in getting people the services and housing that they need. Due to the small sample size, most of the results of the analysis were not found to be statistically significant. This not only brings into question the ability of the regression model to accurately predict housing outcomes, but also limits the ability of this analysis to be generalized to the homeless population as a whole. Moreover, due to the qualitative nature of how variables were collected at baseline, the costs associated with participants' access to housing and services prior to entry into Care Review can not be quantitatively analyzed. The length of the longitudinal data, 3 months may not, and probably should not, be considered the endpoint of significance. As data becomes more available, it will be important to determine the ability of Care Review to maintain people in permanent/permanent supportive housing and/or stable housing for longer periods of time than 3 months to test the long-term durability of the housing outcomes of interest. This, however, was beyond the scope of this analysis due to the limited availability of data for participants beyond their 3 month Care Review.

In regards to the analysis of homelessness in the southeast, analyses of aggregated data have inherent challenges. For one, there is ecological inference fallacy. For this

analysis, the homeless populations of the 85 sampled counties were given the average characteristics of the county in which the number was collected. This limits the ability to actually describe the homeless population of these counties and is, at best, associative in terms of the relationship between the characteristics of the county and the number of homeless in the county. Moreover, due to the small sample size of counties for which the number of homeless individuals was known for those counties, the ability to generalize the results to the other counties in the southeast is very limited. This is further limited due to the significant differences in the demographic characteristics measured (see Table). These estimates can be used to establish counties of interest for more study into the homeless population that lives there and the possibility of building a program and initiative similar to that of the Durham Center and Durham County.

Conclusion

Overall, it appears that there is need that is being met with success of the Durham Center in Durham County. How successful the Durham Center's Care Review program and the overall Durham County initiative are is yet to be determined, but the preliminary results are positive. Moreover, as the economy continues to struggle, homelessness may become a reality for more people than it has affected before and programs similar to Durham County's may need to be seriously considered in other counties around the southeast. This would require more than just identifying an estimated rate of homelessness, including a thorough analysis of each county's infrastructure, which is beyond the scope of this paper. This responsibility must ultimately lie with those individual counties that are in need. Hopefully this paper will help to make them aware of possible solutions and help to facilitate them seeking to find the one that best works for them.

Appendix Table 1. The 85 counties used for homelessness analysis

State	County	Population	Homeless total 2007	Persons Homeless, per 1000
AL	Lauderdale	87891	265	3.015098
AL	Madison	304307	830	2.727509
AL	Montgomery	223571	456	2.039621
AL	Etowah	103362	119	1.151294
AL	Tuscaloosa	171159	345	2.01567
AR	Pulaski	367319	1822	4.960266
AR	Washington	186521	279	1.49581
AR	Faulkner	100685	163	1.61891
AR	Sebastian	120322	194	1.61234
AR	Garland	95164	4	0.042033
FL	Pinellas	924413	2526	2.732545
FL	Polk	561606	802	1.428047
FL	Leon	245625	590	2.402036
FL	Santa Rosa	144561	629	4.351104
FL	Brevard	534359	1899	3.553791
FL	Marion	316183	480	1.518108
FL	Miami-Dade	2402208	4392	1.828318
FL	Broward	1787636	3154	1.764341
FL	Charlotte	154438	730	4.726816
FL	Lee	571344	2382	4.169117
FL	Palm Beach	1274013	1766	1.386171
FL	Collier	314649	484	1.538222
GA	Clarke	112787	464	4.113949
GA	Richmond	194398	489	2.515458
GA	Muscogee	188660	540	2.862292
GA	Cobb	679325	537	0.790491
GA	Chatham	241411	514	2.129149
KY	Jefferson	701500	2587	3.687812
KY	Fayette	270789	1158	4.276392
LA	Lafayette	203091	631	3.106982
LA	Calcasieu	184524	247	1.338579
LA	Caddo	253118	857	3.385773
LA	Jefferson	431361	1619	3.753237
LA	East Baton Rouge	429073	1042	2.428491
LA	Ouachita	149259	313	2.097026
LA	St. Tammany	230605	434	1.882006
LA	Rapides	130201	188	1.443921
LA	Terrebonne	109348	163	1.490654
MS	Harrison	171875	274	1.594182
NC	Forsyth	332355	503	1.513442
NC	Buncombe	222174	635	2.85812
NC	Durham	246896	539	2.183105
NC	Guilford	451905	1182	2.615594

NC	Mecklenburg	827445	1976	2.388074
NC	Wake	786522	1043	1.326091
NC	Cumberland	299060	757	2.531265
NC	Orange	120100	208	1.73189
OK	Tulsa	577795	666	1.152658
OK	Oklahoma	691266	1734	2.508441
OK	Cleveland	228594	594	2.598493
SC	Charleston	331917	539	1.6239
SC	Richland	348226	1569	4.505695
SC	Florence	131297	176	1.340472
TN	Hamilton	312905	1064	3.400393
TN	Shelby	911438	1814	1.990262
TN	Knox	411967	956	2.320574
TN	Davidson	578698	2156	3.725605
TN	Rutherford	228829	438	1.914093
TX	Bexar	1555592	2247	1.444466
TX	Nueces	321457	277	0.861702
TX	Dallas	2345815	3381	1.44129
TX	Tarrant	1671295	2876	1.720821
TX	El Paso	736310	1241	1.685431
TX	McLennan	226189	431	1.905486
TX	Denton	584238	207	0.354308
TX	Potter	121328	431	3.552354
TX	Gregg	117090	374	3.194124
TX	Harris	3886207	10363	2.66661
TX	Brazos	159006	289	1.817541
TX	Jefferson	243914	710	2.910862
TX	Galveston	283551	267	0.94163
VA	Norfolk City	229112	540	2.356926
VA	Virginia Beach City	435619	476	1.092698
VA	Albemarle	92035	265	2.879339
VA	Portsmouth City	101377	217	2.140525
VA	Lynchburg City	67720	289	4.267572
VA	Dinwiddie	25695	80	3.113446
VA	Chesapeake City	220560	129	0.584875
VA	Rockingham	72564	117	1.61237
VA	Suffolk City	81071	30	0.370046
VA	Arlington	199776	462	2.31259
VA	Fairfax	1010443	1593	1.576536
VA	Loudoun	268817	211	0.784921
VA	Prince William	357503	614	1.717468
WV	Ohio	44662	118	2.642067

Appendix Table 2. Estimated Rates of Homelessness in the counties of the southeast

County and State	Population	Rate of Homelessness, per 1000 residents
Bedford City, VA	6249	14.812
Miller, GA	6239	11.48
Evans, GA	11425	10.664
Crittenden, KY	9070	10.494
Falls Church City, VA	10799	9.603
Early, GA	12065	8.945
Lawrence, AR	16899	8.729
Norton City, VA	3643	8.692
Dallam, TX	6143	8.438
Randolph, GA	7357	8.376
Union, GA	20652	7.928
Lanier, GA	7723	7.672
Van Buren, AR	16718	7.026
Mitchell, GA	23852	6.867
Fayette, AL	18005	6.227
Choctaw, MS	9401	6.175
Upton, TX	3134	6.042
Jasper, MS	18197	5.806
Cook, GA	16333	5.744
Cherokee, NC	26309	5.681
Towns, GA	10525	5.626
Yalobusha, MS	13401	5.581
Winston, MS	19708	5.533
Neshoba, MS	30125	5.507
Berrien, GA	16756	5.44
Bibb, AL	21482	5.35
Mecklenburg, VA	32381	5.182
Calloway, KY	35421	5.089
Bacon, GA	10482	4.929
Salem City, VA	24825	4.836
Noxubee, MS	12051	4.797
Taylor, WV	16304	4.749
Troup, GA	63245	4.721
Allendale, SC	10748	4.713
Boyd, KY	49371	4.707
Union, SC	28306	4.592
Webster, MS	10041	4.519
Henry, TN	31837	4.472
Franklin City, VA	8800	4.443
Anson, NC	25472	4.415
Coal, OK	5634	4.377
Geneva, AL	25868	4.361
Emporia City, VA	5625	4.267
Mason, WV	25756	4.221
Wayne, TN	16828	4.164
Jefferson Davis, MS	13184	4.163

Tallahatchie, MS	13798	4.152
Nicholas, KY	6958	4.059
Barbour, WV	15788	3.948
Charlottesville City, VA	40315	3.927
Fairfax City, VA	22422	3.925
Jackson, NC	35562	3.885
Lexington City, VA	6739	3.853
Northampton, VA	13609	3.785
Nicholas, WV	26446	3.768
Franklin, GA	21691	3.763
Hardin, TN	26089	3.752
Osage, OK	45549	3.749
Jones, MS	66715	3.747
Union, FL	14842	3.731
Marion, AL	30165	3.713
Calhoun, WV	7381	3.643
Loving, TX	60	3.64
Andrews, TX	12952	3.628
Macon, NC	32395	3.513
Rockcastle, KY	16857	3.507
Chambers, AL	35176	3.491
Tillman, OK	8482	3.49
Arkansas, AR	19884	3.438
Effingham, GA	48954	3.42
Ashe, NC	25499	3.388
Galax City, VA	6682	3.387
Lee, MS	79714	3.384
Martinsville City, VA	14945	3.382
Habersham, GA	41112	3.377
Alfalfa, OK	5673	3.376
Natchitoches, LA	38719	3.363
Sumter, GA	32490	3.341
Fredericksburg City, VA	21273	3.338
Greer, OK	5864	3.32
Catoosa, GA	62016	3.317
Warren, VA	36102	3.31
Pearl River, MS	57099	3.308
Mitchell, TX	9327	3.28
West Feliciana, LA	15535	3.267
Emanuel, GA	22600	3.239
Covington City, VA	6073	3.236
Williamsburg City, VA	11793	3.229
Leake, MS	22769	3.222
Hopewell City, VA	22731	3.211
Edwards, TX	1935	3.21
Sunflower, MS	31833	3.195
Anderson, TX	57064	3.183
Concho, TX	3654	3.176
Monongalia, WV	84752	3.169
Crisp, GA	22051	3.162

Roane, WV	15583	3.156
Tippah, MS	21248	3.14
Bedford, TN	43413	3.131
Lyon, KY	8273	3.109
Carteret, NC	63584	3.088
Hickman, TN	23812	3.085
Thomas, GA	45135	3.085
Washington, GA	20723	3.084
Kershaw, SC	57490	3.078
Sarasota, FL	369535	3.077
Seminole, GA	9168	3.059
Hinds, MS	249012	3.057
Lake, FL	290435	3.04
Richmond City, VA	192913	3.038
McDowell, WV	23882	3.034
Childress, TX	7717	2.993
Cabell, WV	93904	2.986
Campbell, TN	40848	2.943
Winchester City, VA	25265	2.942
Hampshire, WV	22480	2.94
Citrus, FL	138143	2.936
Lancaster, VA	11519	2.936
Hamilton, FL	14215	2.929
Jones, TX	19645	2.925
Polk, TX	46995	2.916
Roanoke City, VA	91552	2.912
Washington, FL	22720	2.901
Llano, TX	18269	2.897
Pontotoc, MS	28887	2.887
Telfair, GA	13268	2.876
Moore, TX	20591	2.874
Calhoun, GA	6094	2.873
Liberty, FL	7782	2.869
Person, NC	37341	2.868
Hartley, TX	5335	2.858
Scotland, NC	37094	2.85
Baxter, AR	41307	2.849
Hart, GA	24276	2.845
Marshall, KY	31278	2.844
Craven, NC	94875	2.838
Granville, NC	54473	2.836
Highlands, FL	97987	2.828
Madison, TX	13310	2.827
Rockingham, NC	93063	2.826
Appling, GA	17860	2.822
Coweta, GA	115291	2.808
Flagler, FL	83084	2.803
Martin, FL	139393	2.795
Avery, NC	17674	2.791
Hernando, FL	165409	2.788

Bee, TX	33176	2.788
Liberty, GA	62571	2.786
Wheeler, GA	6908	2.785
Lincoln, AR	14125	2.781
Bradford, FL	28384	2.78
Boyle, KY	28444	2.779
Garfield, OK	57068	2.778
Chowan, NC	14695	2.775
Harrison, WV	68745	2.77
Morgan, WV	16337	2.768
Dickens, TX	2596	2.766
Ellis, OK	3912	2.762
Oconee, SC	70567	2.759
Sumter, FL	68768	2.758
Watauga, NC	42700	2.754
Horry, SC	238493	2.753
Warren, KY	101266	2.741
Cleveland, NC	98373	2.733
Richmond, VA	9142	2.731
Paulding, GA	121530	2.72
Indian River, FL	130100	2.718
Walker, TX	63304	2.715
Forrest, MS	76372	2.714
Manassas City, VA	36638	2.711
Gulf, FL	14043	2.704
Chester, SC	32875	2.701
Burke, NC	90054	2.68
Lafayette, FL	8045	2.662
Decatur, GA	28665	2.662
Greene, TN	65945	2.658
Lake, TN	7406	2.656
Smyth, VA	32506	2.653
Coffee, AL	46027	2.642
Alachua, FL	227120	2.624
Bastrop, TX	71684	2.615
Beaufort, SC	142045	2.613
Henderson, NC	99033	2.611
Kanawha, WV	192419	2.606
Volusia, FL	496575	2.6
Sabine, TX	10457	2.595
Pender, NC	48630	2.59
Tattnall, GA	23492	2.587
Blanco, TX	9250	2.58
Cocke, TN	35220	2.577
Moore, NC	83162	2.576
McCracken, KY	64950	2.567
Onslow, NC	150673	2.563
Petersburg City, VA	32445	2.561
New Hanover, NC	182591	2.554
Transylvania, NC	29780	2.549

Escambia, FL	295426	2.549
Mathews, VA	9184	2.544
Toombs, GA	27623	2.54
Greene, MS	13103	2.538
Brunswick, NC	94945	2.534
Roger Mills, OK	3293	2.531
Union, KY	15371	2.527
Gray, TX	21919	2.526
Stokes, NC	46168	2.514
Powhatan, VA	27649	2.514
Pittsburg, OK	45002	2.514
Mercer, WV	61278	2.512
Rhea, TN	30347	2.51
Izard, AR	13356	2.505
Bay, FL	163505	2.503
Greensville, VA	11006	2.503
Jack, TX	9110	2.502
Sussex, VA	12249	2.502
Houston, TX	23044	2.497
Baldwin, GA	45275	2.492
Marion, AR	16931	2.492
Jackson, GA	55778	2.489
Hood, TX	49238	2.489
Holmes, FL	19285	2.488
Columbia, FL	67007	2.486
Woods, OK	8385	2.482
Bath, VA	4814	2.478
Washington, OK	49241	2.475
Muhlenberg, KY	31561	2.474
Fulton, GA	960009	2.474
Tyler, TX	20557	2.473
Pamlico, NC	12785	2.472
Baldwin, AL	169162	2.47
Okaloosa, FL	180291	2.466
Tyrrell, NC	4187	2.465
Danville City, VA	45586	2.464
Baylor, TX	3805	2.46
Dare, NC	33935	2.453
Jackson, MS	130577	2.453
Ware, GA	35748	2.447
Craig, OK	15046	2.446
Hughes, OK	13893	2.445
Bowie, TX	91455	2.445
Raleigh, WV	79302	2.445
Kerr, TX	47254	2.444
Dixie, FL	14964	2.443
Fayette, WV	46610	2.427
Richmond, NC	46555	2.426
Wood, TX	41776	2.423
St. Lucie, FL	252724	2.422

Manatee, FL	313298	2.421
Wilcox, GA	8712	2.421
Oldham, KY	55285	2.419
Bland, VA	6903	2.418
Patrick, VA	19212	2.413
Carter, OK	47503	2.412
Motley, TX	1276	2.411
Donley, TX	3848	2.41
Georgetown, SC	60860	2.41
Pitt, NC	145619	2.409
Fannin, TX	33337	2.408
Grant, OK	4653	2.406
Beckham, OK	19271	2.405
McCormick, SC	10226	2.405
Lauderdale, MS	76724	2.404
Maury, TN	78309	2.403
Wood, WV	86597	2.402
Greene, GA	15534	2.402
Kiowa, OK	9778	2.4
Chattahoochee, GA	14041	2.4
Randolph, WV	28465	2.4
Freestone, TX	18803	2.399
La Salle, LA	14093	2.395
Jefferson, FL	14677	2.393
Jackson, FL	49288	2.392
Clay, NC	10008	2.391
Payne, OK	73818	2.385
Roberts, TX	835	2.384
Mercer, KY	21818	2.382
Coryell, TX	72667	2.379
Escambia, AL	37849	2.379
Lincoln, TN	32728	2.378
Kay, OK	45889	2.378
Stephens, TX	9610	2.376
Beaver, OK	5336	2.372
Franklin, FL	10264	2.371
Dewey, OK	4475	2.37
Murray, OK	12945	2.369
Upshur, WV	23685	2.367
Orange, FL	1043500	2.366
Okeechobee, FL	40406	2.366
Trigg, KY	13399	2.364
Clarke, MS	17631	2.363
Harper, OK	3348	2.362
Wetzel, WV	16685	2.362
Sullivan, TN	153239	2.36
Bryan, OK	38395	2.357
Baker, FL	25203	2.357
Real, TX	3061	2.354
Washington, TN	114316	2.348

Karnes, TX	15270	2.348
Hancock, WV	30911	2.347
Coke, TX	3623	2.344
Taylor, FL	19842	2.343
Dodge, GA	19700	2.342
Ottawa, OK	33026	2.341
Lamar, TX	49863	2.339
Pontotoc, OK	35350	2.335
Wakulla, FL	29542	2.335
Polk, NC	19226	2.334
Armstrong, TX	2120	2.332
Woodward, OK	19231	2.329
Coffee, TN	51625	2.329
Gilchrist, FL	16865	2.328
Noble, OK	11152	2.327
Calhoun, FL	13410	2.327
Leon, TX	16538	2.326
Throckmorton, TX	1678	2.325
Muskogee, OK	71018	2.325
Floyd, GA	95322	2.323
Ballard, KY	8245	2.32
Cass, TX	29955	2.315
Northumberland, VA	12820	2.315
Atoka, OK	14340	2.314
Colonial Heights City, VA	17676	2.312
Dougherty, GA	94773	2.311
York, VA	61879	2.31
Putnam, FL	74083	2.309
Madison, FL	19210	2.309
Webster, LA	41301	2.309
Warren, MS	49308	2.307
Butts, GA	23561	2.302
Wichita, TX	125158	2.301
Winn, LA	15835	2.299
Marion, WV	56706	2.298
Caldwell, LA	10615	2.295
Sharp, AR	17963	2.292
Bibb, GA	154903	2.292
Blaine, OK	12734	2.291
Lewis, WV	17129	2.289
Dale, AL	48392	2.288
Pocahontas, WV	8755	2.286
Haywood, NC	56447	2.282
Beaufort, NC	46355	2.281
Jefferson, AL	656700	2.279
Pawnee, OK	16844	2.278
Gillespie, TX	23527	2.277
Lincoln, KY	25361	2.275
Staunton City, VA	23334	2.274
Brooke, WV	24132	2.273

Delaware, OK	40061	2.272
Greenville, SC	417166	2.266
Glynn, GA	73630	2.265
Bandera, TX	20203	2.264
Morgan, AL	115237	2.263
Comanche, OK	109181	2.263
Major, OK	7329	2.262
Allen, LA	25447	2.261
Middlesex, VA	10615	2.26
Stephens, OK	43243	2.26
Mills, TX	5184	2.259
Colbert, AL	54766	2.258
Rabun, GA	16354	2.257
Glades, FL	11230	2.257
Highland, VA	2510	2.256
Sevier, TN	81382	2.256
Daviess, KY	93613	2.256
Robeson, NC	129021	2.256
Hanover, VA	98983	2.255
Catawba, NC	153784	2.255
East Feliciana, LA	20922	2.254
Jackson, AR	17426	2.251
Howard, TX	32463	2.25
Elmore, AL	75688	2.25
Hardeman, TN	28176	2.25
Henderson, KY	45666	2.25
Clay, AL	13829	2.246
Boone, AR	36405	2.246
New Kent, VA	16852	2.244
King, TX	287	2.243
Montague, TX	19810	2.242
Briscoe, TX	1598	2.237
Bosque, TX	18058	2.235
Cumberland, TN	52344	2.233
Trinity, TX	14296	2.232
Grayson, TX	118478	2.232
Washita, OK	11583	2.228
Waynesboro City, VA	21454	2.227
DeSoto, FL	35315	2.224
Vernon, LA	46748	2.223
Graves, KY	37872	2.221
Clay, FL	178899	2.219
Greenbrier, WV	34850	2.218
McIntosh, OK	19899	2.217
Independence, AR	34909	2.216
Livingston, KY	9797	2.215
Oldham, TX	2133	2.215
Levy, FL	39076	2.214
Green, KY	11641	2.213
Brown, TX	38970	2.21

Wayne, GA	28895	2.209
Union, AR	44170	2.208
Lowndes, GA	97844	2.208
George, MS	21828	2.207
Duval, FL	837964	2.204
Walton, FL	52270	2.204
Nassau, FL	66707	2.2
Whitley, KY	38142	2.199
Okfuskee, OK	11370	2.199
Mason, TX	3902	2.197
Franklin, TN	41319	2.196
Coleman, TX	8761	2.195
Grant, WV	11915	2.194
Nowata, OK	10785	2.194
Calhoun, AL	112903	2.19
Giles, VA	17403	2.189
Newton, MS	22413	2.187
Love, OK	9162	2.185
Cimarron, OK	2807	2.185
Suwannee, FL	39494	2.185
Cleburne, AR	25485	2.184
Stephens, GA	25143	2.183
Henry, GA	178033	2.182
Surry, NC	72687	2.182
Hyde, NC	5341	2.181
Montgomery, VA	84541	2.179
Aransas, TX	24831	2.179
Morris, TX	13002	2.179
Hampton City, VA	145017	2.178
Smith, TX	194635	2.178
Loudon, TN	44566	2.178
Carson, TX	6595	2.178
Rusk, TX	48354	2.174
Cotton, OK	6491	2.172
Adams, MS	32626	2.171
Parker, TX	106266	2.165
Oktibbeha, MS	41633	2.164
Hertford, NC	23581	2.163
Pottawatomie, OK	68638	2.162
Marshall, OK	14558	2.162
Botetourt, VA	32228	2.162
Kendall, TX	30213	2.162
Bedford, VA	66507	2.161
Eastland, TX	18293	2.159
Mineral, WV	26928	2.159
Stanly, NC	59358	2.157
Pike, MS	40240	2.157
Alcorn, MS	35589	2.156
Nash, NC	92312	2.154
Charlton, GA	10882	2.152

Hardin, KY	97087	2.15
Taylor, TX	124927	2.149
Lawrence, MS	13457	2.148
Orleans, LA	223388	2.146
Obion, TN	32184	2.146
Fulton, KY	6949	2.145
Kent, TX	734	2.144
Hot Spring, AR	31730	2.141
Kingfisher, OK	14316	2.139
Elbert, GA	20768	2.138
Hamilton, TX	8186	2.137
Halifax, NC	55521	2.136
Union, NC	175272	2.136
Fulton, AR	11756	2.135
Young, TX	18021	2.134
Marengo, AL	21842	2.134
Jefferson, AR	80655	2.133
Iredell, NC	146206	2.133
Prince George, VA	36184	2.131
Orange, VA	31740	2.131
Logan, WV	36218	2.127
Lincoln, OK	32645	2.126
Haskell, OK	12155	2.124
Breckinridge, KY	19225	2.122
Jackson, OK	26042	2.121
Tucker, WV	6856	2.12
Callahan, TX	13491	2.12
Greenwood, SC	68213	2.12
Clark, KY	35275	2.119
Beauregard, LA	35130	2.119
Canadian, OK	101335	2.119
Pleasants, WV	7280	2.118
Craig, VA	5179	2.118
Talladega, AL	80271	2.116
Mayes, OK	39774	2.116
Hutchinson, TX	22460	2.114
Alleghany, NC	10912	2.114
Marshall, AL	87185	2.113
Lee, AL	125781	2.113
Ouachita, AR	26710	2.112
Cabarrus, NC	156395	2.112
Wayne, NC	113847	2.112
Franklin, KY	48183	2.112
McClain, OK	31038	2.111
Nottoway, VA	15572	2.111
Polk, AR	20363	2.111
Bell, KY	29544	2.111
Comal, TX	101181	2.109
Putnam, WV	54982	2.109
Hill, TX	35806	2.107

Rappahannock, VA	7203	2.105
Perry, KY	29753	2.105
Jefferson, OK	6385	2.104
Marshall, WV	33896	2.103
Seminole, FL	406875	2.103
Coosa, AL	11044	2.1
Brunswick, VA	17938	2.1
Scurry, TX	16202	2.099
Hopkins, TX	33496	2.097
Kenton, KY	154911	2.096
Upshur, TX	37923	2.095
Houston, AL	95660	2.093
Fayette, GA	106671	2.091
Conway, AR	20694	2.09
Perry, TN	7653	2.09
Hunt, TX	83338	2.088
Jackson, WV	28451	2.088
Lee, NC	56908	2.086
Washington, LA	44750	2.085
Humphreys, TN	18394	2.084
Wheeler, TX	4854	2.084
Stone, MS	15608	2.083
Houston, GA	127530	2.082
Hampton, SC	21268	2.081
Garvin, OK	27375	2.079
Bolivar, MS	38352	2.077
DeSoto, MS	144706	2.077
Union, MS	27008	2.076
Claiborne, LA	16210	2.074
Hancock, MS	40421	2.074
Dawson, GA	20643	2.074
Putnam, GA	19930	2.074
Fannin, GA	22319	2.073
Cooke, TX	38946	2.073
Wilson, TN	104035	2.072
Bladen, NC	32921	2.072
Orange, TX	84243	2.072
Mobile, AL	404157	2.07
Caddo, OK	30063	2.069
Osceola, FL	244045	2.068
Yancey, NC	18421	2.067
Walker, AL	70034	2.067
Pendleton, WV	7679	2.066
Seminole, OK	24650	2.065
Morgan, GA	17908	2.064
Bristol City, VA	17496	2.063
Roane, TN	53293	2.062
Rogers, OK	82435	2.06
Lexington, SC	240160	2.06
Culpeper, VA	44622	2.059

Barbour, AL	28171	2.059
Pickens, AL	20133	2.059
DeWitt, TX	20167	2.057
Bullock, AL	10906	2.053
Live Oak, TX	11522	2.053
Blount, TN	118186	2.051
Le Flore, OK	50079	2.051
Delta, TX	5561	2.049
Grady, OK	50490	2.047
Sampson, NC	63561	2.046
Grimes, TX	25552	2.046
Lincoln, LA	41857	2.046
Clay, TX	11104	2.045
Poquoson City, VA	11918	2.044
Bell, TX	257897	2.044
Lenoir, NC	57662	2.043
Garza, TX	4877	2.043
Tallapoosa, AL	41010	2.043
White, GA	24738	2.042
Kaufman, TX	93241	2.039
Archer, TX	9266	2.037
Hancock, GA	9677	2.036
Dawson, TX	14174	2.036
Robertson, TN	62187	2.035
Dallas, AL	43945	2.033
McDowell, NC	43414	2.033
San Saba, TX	5993	2.033
Perquimans, NC	12337	2.032
Alexandria City, VA	136974	2.032
Wilkinson, MS	10239	2.032
Lubbock, TX	254862	2.031
Pulaski, VA	35055	2.031
Davie, NC	40035	2.031
Victoria, TX	86191	2.031
Stone, AR	11981	2.03
Swain, NC	13445	2.03
Lunenburg, VA	13219	2.029
Limestone, TX	22720	2.029
Houston, TN	8076	2.028
Putnam, TN	68284	2.028
Perry, AR	10411	2.028
Clarke, VA	14565	2.028
Gilmer, GA	28175	2.026
Pulaski, KY	59749	2.026
Shenandoah, VA	40051	2.026
Benton, AR	196045	2.024
Union, LA	22964	2.023
Currituck, NC	23770	2.023
Laurens, GA	47316	2.021
Boone, KY	110080	2.021

Tyler, WV	9264	2.02
Berkeley, WV	97534	2.02
Stonewall, TX	1402	2.019
Tift, GA	41685	2.018
Marion, TX	10970	2.018
Burnet, TX	42896	2.016
Choctaw, OK	15334	2.015
Pasquotank, NC	39591	2.015
Haskell, TX	5438	2.014
Saline, AR	94024	2.014
Lavaca, TX	18970	2.014
Lancaster, SC	63628	2.014
Ritchie, WV	10628	2.013
Morgan, TN	20108	2.013
Scott, AR	11415	2.011
Okmulgee, OK	39670	2.01
Johnson, TN	18043	2.01
Camden, NC	9271	2.01
Cullman, AL	80187	2.009
Prince Edward, VA	20530	2.008
Craighead, AR	88244	2.007
Aiken, SC	151800	2.007
Rains, TX	11514	2.006
Limestone, AL	72446	2.006
Nevada, AR	9471	2.005
Van Zandt, TX	52916	2.004
Augusta, VA	70910	2.003
St. Francis, AR	27535	2.003
Panola, TX	22989	2.003
Williamson, TN	160781	2.002
Wagoner, OK	66313	1.999
Palo Pinto, TX	27797	1.999
Lamar, MS	46240	1.999
Carlisle, KY	5317	1.998
Rankin, MS	135830	1.997
Warren, TN	40016	1.997
Searcy, AR	8075	1.995
Gloucester, VA	38293	1.994
Mason, KY	17271	1.994
Montgomery, GA	9067	1.993
Bossier, LA	107270	1.992
Covington, AL	37234	1.991
Hopkins, KY	46830	1.989
Irion, TX	1814	1.989
Creek, OK	69146	1.989
Wirt, WV	5980	1.988
Logan, OK	36971	1.988
Gaston, NC	199397	1.988
White, AR	72560	1.988
Pope, AR	57671	1.988

Tishomingo, MS	19112	1.987
McNairy, TN	25722	1.986
Lampasas, TX	20758	1.986
Franklin, TX	10367	1.986
Shelby, AL	178182	1.984
Franklin, AL	30847	1.982
West Carroll, LA	11732	1.982
Cherokee, OK	44910	1.981
Shackelford, TX	3194	1.98
Brazoria, TX	287898	1.979
Hamblen, TN	61026	1.979
Carroll, AR	27339	1.979
Tom Green, TX	103938	1.979
Newton, AR	8411	1.977
Sabine, LA	23934	1.976
Montgomery, TN	147114	1.975
Mitchell, NC	15681	1.975
Irwin, GA	10403	1.975
Somervell, TX	7773	1.974
Tazewell, VA	44608	1.973
Autauga, AL	49730	1.973
Newton, TX	14090	1.972
Henderson, TX	80222	1.97
Spartanburg, SC	271087	1.97
Jeff Davis, TX	2315	1.97
Hardin, TX	51483	1.97
Jackson, AL	53745	1.97
Monroe, WV	13510	1.97
Anderson, SC	177963	1.969
Nolan, TX	14812	1.968
Menard, TX	2210	1.967
Pickens, SC	114446	1.967
Dooly, GA	11748	1.967
Montgomery, NC	27638	1.966
Buckingham, VA	16099	1.964
Little River, AR	13074	1.964
Johnston, OK	10436	1.961
Johnson, TX	149016	1.959
Johnson, GA	9626	1.958
Wilkes, GA	10468	1.958
Wise, TX	57891	1.958
Rutherford, NC	63867	1.957
Jefferson, WV	50443	1.956
Hemphill, TX	3412	1.956
Kimble, TX	4570	1.956
Pike, GA	16801	1.956
Columbia, AR	24440	1.956
Pike, AR	10859	1.954
Lincoln, NC	71894	1.952
Jasper, TX	35293	1.951

Lincoln, MS	34404	1.949
Conecuh, AL	13403	1.949
Jefferson, TN	49372	1.948
Rockwall, TX	69155	1.947
Montgomery, AR	9272	1.945
Rowan, NC	136254	1.944
Dickson, TN	46583	1.944
Madison, GA	27837	1.941
San Jacinto, TX	24760	1.941
Edgefield, SC	25261	1.94
Wilkes, NC	67310	1.94
Campbell, KY	86866	1.94
Drew, AR	18387	1.938
Nelson, VA	15161	1.937
Lafayette, MS	40865	1.937
Fauquier, VA	66170	1.937
Angelina, TX	82524	1.937
Tangipahoa, LA	113137	1.936
Columbus, NC	54637	1.936
St. Clair, AL	75232	1.936
Sumner, TN	149416	1.936
Franklin, AR	18276	1.936
Jackson, LA	15202	1.935
Upson, GA	27676	1.935
Monroe, GA	24443	1.935
Caldwell, KY	12916	1.934
Gwinnett, GA	757104	1.934
Colleton, SC	39467	1.931
Bledsoe, TN	13030	1.93
Camp, TX	12410	1.93
Caswell, NC	23546	1.93
St. Charles, LA	52761	1.929
King William, VA	15381	1.929
Preston, WV	30384	1.928
Wilbarger, TX	14218	1.928
Clarke, AL	27248	1.928
Oconee, GA	30858	1.928
Carroll, TN	29096	1.924
Grant, AR	17493	1.924
Forsyth, GA	150968	1.924
Chesterfield, VA	296718	1.923
Grant, LA	19879	1.922
Giles, TN	29269	1.921
Columbia, GA	106887	1.921
Collin, TX	698851	1.92
Fayette, TX	22521	1.92
Jones, NC	10204	1.919
Dorchester, SC	118979	1.916
Custer, OK	25566	1.915
York, SC	199035	1.913

Milam, TX	25286	1.913
Bourbon, KY	19839	1.912
Lowndes, MS	59773	1.91
Benton, TN	16378	1.909
Greene, AR	40091	1.909
Latimer, OK	10562	1.907
Bradley, AR	12111	1.905
Marion, SC	34684	1.905
Montgomery, TX	398290	1.904
Gilmer, WV	6965	1.904
Swisher, TX	7830	1.904
Copiah, MS	29223	1.903
San Augustine, TX	8888	1.903
Caroline, VA	26731	1.902
Lee, GA	32495	1.902
Lincoln, GA	8257	1.901
Greenup, KY	37374	1.9
Barren, KY	40737	1.9
Davidson, NC	156236	1.899
McLean, KY	9844	1.898
Rockdale, GA	80332	1.898
Alleghany, VA	16600	1.896
Borden, TX	648	1.892
Harrison, KY	18592	1.892
Leflore, MS	35752	1.891
Essex, VA	10633	1.891
Cleburne, AL	14700	1.891
Clark, AR	22913	1.891
Harrison, TX	63819	1.89
Jasper, SC	21809	1.889
Red River, LA	9438	1.888
Unicoi, TN	17663	1.886
Hale, AL	18236	1.885
Ashley, AR	22843	1.884
Goochland, VA	20085	1.884
Lauderdale, TN	26732	1.88
Isle of Wight, VA	34723	1.88
King George, VA	21780	1.88
Cherokee, TX	48513	1.88
Clarendon, SC	33339	1.88
Williamson, TX	353830	1.88
Hancock, KY	8636	1.878
Halifax, VA	36149	1.878
Sequoyah, OK	41356	1.878
Harris, GA	28785	1.878
Alamance, NC	142661	1.877
Cheatham, TN	39018	1.877
McMullen, TX	913	1.876
Logan, AR	22903	1.876
Red River, TX	13440	1.875

Camden, GA	45118	1.874
Crawford, AR	58785	1.874
Henry, KY	16025	1.873
Cherokee, GA	195327	1.871
Coffee, GA	40242	1.871
Christian, KY	66989	1.87
Cottle, TX	1679	1.869
Stafford, VA	120170	1.868
McIntosh, GA	11248	1.867
McCulloch, TX	8016	1.867
Lamar, AL	14548	1.867
Newton, GA	91451	1.866
Franklin, MS	8269	1.866
Miller, AR	43055	1.866
Carroll, GA	107325	1.865
Gibson, TN	48461	1.862
Comanche, TX	13837	1.861
Bryan, GA	29648	1.861
Pushmataha, OK	11641	1.86
Spalding, GA	62185	1.857
Shelby, TX	26575	1.856
Wythe, VA	28640	1.856
Brewster, TX	9048	1.854
Nelson, KY	42102	1.853
James City, VA	59741	1.851
Cleveland, AR	8858	1.851
Berkeley, SC	152282	1.849
Bienville, LA	15168	1.849
Fisher, TX	4027	1.848
Navarro, TX	49440	1.846
Clay, MS	21210	1.844
Brantley, GA	15735	1.842
Foard, TX	1519	1.841
Newberry, SC	37762	1.841
Washington, AL	17651	1.841
Bradley, TN	93538	1.841
Braxton, WV	14810	1.841
Chatham, NC	60052	1.84
Lonoke, AR	62902	1.837
Clayton, GA	271240	1.835
Madison, AR	15361	1.833
Madison, NC	20355	1.832
Douglas, GA	119557	1.831
Hall, GA	173256	1.83
Harmon, OK	3042	1.83
Caldwell, NC	79841	1.83
Shelby, KY	39717	1.826
DeKalb, GA	723602	1.825
Charles City, VA	7221	1.825
McCurtain, OK	34018	1.825

Pike, KY	66860	1.822
Hempstead, AR	23347	1.821
Marshall, TN	28884	1.82
Woodford, KY	24386	1.819
Wise, VA	41905	1.819
Tipton, TN	57380	1.817
Randolph, NC	140410	1.817
Duplin, NC	52790	1.817
Marion, MS	25730	1.815
Warren, NC	19605	1.814
Frederick, VA	71187	1.813
Walton, GA	79388	1.812
Gates, NC	11527	1.812
Franklin, VA	50784	1.811
Moore, TN	6070	1.81
Webster, KY	14083	1.81
Bartow, GA	91266	1.81
Pulaski, GA	9887	1.81
Perry, MS	12132	1.809
Yell, AR	21834	1.808
Johnson, AR	24453	1.807
Grenada, MS	22861	1.807
Peach, GA	24785	1.806
Burleson, TX	16932	1.806
Hardy, WV	13420	1.804
Graham, NC	7995	1.803
Southampton, VA	17814	1.801
Yadkin, NC	38056	1.8
Stewart, TN	12998	1.799
Accomack, VA	39345	1.798
Livingston, LA	114805	1.797
Collingsworth, TX	2930	1.797
Simpson, MS	27972	1.796
Erath, TX	34289	1.796
Cannon, TN	13448	1.796
Morgan, KY	14306	1.795
Washington, VA	51984	1.794
Pierce, GA	17452	1.792
Randolph, AL	22673	1.792
Walker, GA	64606	1.792
Lee, AR	11379	1.791
Johnston, NC	152143	1.791
Floyd, KY	42282	1.787
McMinn, TN	52020	1.786
Wilkinson, GA	9995	1.785
Catahoula, LA	10567	1.785
Ellis, TX	139300	1.785
Kleberg, TX	30353	1.784
Refugio, TX	7596	1.783
Meade, KY	27994	1.783

Coahoma, MS	28420	1.782
Calhoun, TX	20705	1.781
Louisa, VA	31226	1.78
Grant, KY	24769	1.78
Monroe, MS	37572	1.779
Hardeman, TX	4250	1.777
Howard, AR	14415	1.777
Chattooga, GA	26442	1.776
Washington, NC	13227	1.775
Candler, GA	10674	1.775
Decatur, TN	11426	1.774
Harnett, NC	106283	1.774
Martin, NC	24342	1.773
Austin, TX	26407	1.773
Carroll, KY	10521	1.773
Carter, TN	59157	1.772
Prairie, AR	8927	1.77
Charlotte, VA	12491	1.769
Washington, TX	31912	1.769
Pickens, GA	29640	1.768
Anderson, KY	20885	1.767
Appomattox, VA	14128	1.767
Henrico, VA	284399	1.766
Saluda, SC	19059	1.765
Weakley, TN	33357	1.764
Midland, TX	124380	1.763
Owen, KY	11428	1.762
Chicot, AR	12915	1.762
Ben Hill, GA	17635	1.761
Scott, KY	41605	1.761
Covington, MS	20447	1.761
Lamar, GA	16679	1.759
Monroe, AL	23342	1.758
Cherokee, AL	24863	1.756
Darlington, SC	67551	1.755
Concordia, LA	19460	1.754
Butler, AL	20520	1.753
Mingo, WV	27100	1.75
Franklin, NC	55886	1.749
Jasper, GA	13624	1.748
St. Mary, LA	51867	1.747
Jeff Davis, GA	13278	1.744
Nacogdoches, TX	61079	1.744
Ascension, LA	97335	1.744
Yazoo, MS	27929	1.74
Morehouse, LA	29761	1.74
Jefferson Davis, LA	31418	1.739
Prentiss, MS	25615	1.738
Dade, GA	16233	1.737
Pendleton, KY	15334	1.737

Tate, MS	26723	1.736
De Soto, LA	26390	1.736
Henry, AL	16706	1.736
Guadalupe, TX	108410	1.735
Campbell, VA	52667	1.735
Winston, AL	24634	1.734
Doddridge, WV	7459	1.734
Randall, TX	111472	1.733
St. John the Baptist, LA	48537	1.731
Hays, TX	130325	1.731
Bullitt, KY	72851	1.73
Bulloch, GA	63207	1.729
Wayne, MS	21087	1.727
Liberty, TX	75685	1.727
Henderson, TN	26750	1.727
Wilson, NC	76624	1.726
Orangeburg, SC	90845	1.726
Westmoreland, VA	17188	1.725
Madison, VA	13613	1.725
Alexander, NC	36177	1.724
St. Bernard, LA	15514	1.724
Glascocock, GA	2720	1.723
Smith, MS	15970	1.722
Goliad, TX	7192	1.721
Crawford, GA	12823	1.72
Dallas, AR	8350	1.72
Attala, MS	19644	1.719
Greene, NC	20157	1.717
West Baton Rouge, LA	22463	1.717
Colquitt, GA	44821	1.713
Northampton, NC	21247	1.713
Lawrence, AL	34312	1.71
Montgomery, MS	11754	1.708
Jackson, TX	14249	1.707
Marion, KY	18979	1.707
Amite, MS	13466	1.706
Wayne, WV	41647	1.706
Barrow, GA	63702	1.706
St. James, LA	21721	1.705
Polk, GA	41091	1.704
Colorado, TX	20824	1.701
Madison, MS	87419	1.701
Titus, TX	30306	1.699
Blount, AL	56436	1.699
Treutlen, GA	6852	1.698
Randolph, AR	18448	1.697
Spotsylvania, VA	119529	1.696
Iberville, LA	32974	1.691
Trimble, KY	9074	1.69
Chambers, TX	28779	1.69

Lipscomb, TX	3114	1.689
Vance, NC	43810	1.689
Jefferson, MS	9194	1.687
Russell, VA	28790	1.684
Bracken, KY	8655	1.683
Letcher, KY	24520	1.683
Rowan, KY	22234	1.68
Marlboro, SC	29152	1.679
Boone, WV	25512	1.678
Chilton, AL	41953	1.678
Greene, VA	17709	1.678
Ward, TX	10352	1.677
Fluvanna, VA	25058	1.674
Garrard, KY	16933	1.674
Bleckley, GA	12353	1.671
Gordon, GA	51419	1.671
Bertie, NC	19094	1.67
DeKalb, AL	68014	1.668
Tensas, LA	6138	1.667
Jessamine, KY	44790	1.666
Hawkins, TN	56850	1.666
Washington, MS	58007	1.664
Amelia, VA	12502	1.662
Fayette, TN	36102	1.659
Dyer, TN	37886	1.659
Pecos, TX	16139	1.658
Turner, GA	9322	1.657
Barnwell, SC	23265	1.656
Meigs, TN	11698	1.656
Wyoming, WV	24225	1.655
Runnels, TX	10724	1.655
Gallatin, KY	8153	1.654
Chickasaw, MS	18998	1.653
Lafayette, AR	7896	1.652
Taylor, KY	23731	1.648
Terrell, TX	983	1.648
Haralson, GA	28616	1.647
Cameron, LA	7792	1.645
Schley, GA	4198	1.645
Fort Bend, TX	493187	1.643
Calhoun, AR	5558	1.643
Polk, TN	15939	1.642
Taylor, GA	8792	1.641
Texas, OK	20238	1.637
Robertson, TX	16214	1.63
Evangeline, LA	35911	1.63
Simpson, KY	17180	1.628
Calhoun, MS	14647	1.626
Walthall, MS	15543	1.624
Grady, GA	25082	1.623

Logan, KY	27363	1.62
Cherokee, SC	53886	1.619
Pike, AL	29620	1.619
Smith, TN	18753	1.617
Laurens, SC	70374	1.617
Page, VA	24104	1.616
Madison, LA	12328	1.614
Ector, TX	127462	1.613
Russell, AL	50085	1.612
DeKalb, TN	18360	1.612
Lee, SC	20559	1.611
Jones, GA	26973	1.61
Terry, TX	12387	1.609
Pointe Coupee, LA	22648	1.609
Carroll, MS	10326	1.608
Ohio, KY	23844	1.606
Richland, LA	20554	1.605
Marion, TN	27942	1.603
Spencer, KY	16475	1.6
Lewis, TN	11588	1.599
Abbeville, SC	25935	1.598
Medina, TX	43913	1.597
Meriwether, GA	22881	1.597
Marshall, MS	35853	1.597
Brooks, GA	16464	1.595
Henry, VA	56208	1.594
Surry, VA	7119	1.594
Montgomery, KY	24887	1.591
Lawrence, TN	40934	1.591
Matagorda, TX	37824	1.588
Fairfield, SC	23810	1.584
Chesterfield, SC	43191	1.582
Crenshaw, AL	13719	1.581
Monroe, TN	44163	1.578
Larue, KY	13791	1.578
Panola, MS	35427	1.577
Floyd, VA	14789	1.572
Caldwell, TX	36720	1.572
Terrell, GA	10657	1.57
Marion, GA	7276	1.569
Williamsburg, SC	36105	1.568
Scott, MS	28790	1.568
Stewart, GA	4754	1.566
Crockett, TN	14392	1.566
Lee, VA	23787	1.565
White, TN	24482	1.564
Kemper, MS	10108	1.562
Buchanan, VA	24409	1.554
Lumpkin, GA	25462	1.554
Knox, TX	3702	1.552

Avoyelles, LA	42663	1.55
Frio, TX	16336	1.55
Wharton, TX	41475	1.548
Buena Vista City, VA	6457	1.547
Oglethorpe, GA	13997	1.547
Sherman, TX	2936	1.544
Grayson, KY	25425	1.542
Washington, KY	11444	1.542
Hale, TX	36317	1.539
Gadsden, FL	46658	1.538
Worth, GA	21938	1.538
Banks, GA	16445	1.537
Glasscock, TX	1248	1.534
McDuffie, GA	21917	1.531
Benton, MS	7873	1.528
Kinney, TX	3342	1.527
Johnson, KY	24188	1.525
Sequatchie, TN	13002	1.52
Bamberg, SC	15678	1.52
Harlan, KY	31692	1.516
Cross, AR	19056	1.513
Chester, TN	16043	1.512
Wilson, TX	38829	1.51
San Patricio, TX	69522	1.51
Madison, KY	79015	1.509
East Carroll, LA	8699	1.506
Russell, KY	17174	1.506
Calhoun, SC	15026	1.502
St. Landry, LA	91528	1.5
Talbot, GA	6605	1.498
Hansford, TX	5237	1.497
Pittsylvania, VA	61501	1.495
Grayson, VA	16159	1.494
Adair, OK	22317	1.491
Vermilion, LA	56021	1.49
Lee, TX	16573	1.489
Clay, AR	16497	1.488
Screven, GA	15190	1.484
Iberia, LA	75509	1.482
Itawamba, MS	23352	1.481
Scott, TN	21926	1.48
Hickman, KY	4974	1.478
Scott, VA	22882	1.477
Rockbridge, VA	21337	1.474
Carroll, VA	29450	1.474
Edgecombe, NC	53964	1.47
Choctaw, AL	14656	1.467
Monroe, KY	11771	1.466
Hoke, NC	42303	1.463
Crittenden, AR	52083	1.462

Desha, AR	14181	1.462
Macon, GA	13817	1.461
Clay, WV	10256	1.46
Jim Wells, TX	41131	1.458
Hall, TX	3668	1.449
Lincoln, WV	22357	1.447
Waller, TX	35185	1.444
Fleming, KY	14576	1.442
Trousdale, TN	7811	1.442
Issaquena, MS	1805	1.441
Twiggs, GA	10184	1.441
Monroe, AR	9095	1.439
Claiborne, TN	31347	1.435
Heard, GA	11472	1.434
Webster, GA	2252	1.432
Woodruff, AR	7905	1.432
Whitfield, GA	92999	1.428
Hockley, TX	22609	1.419
Burke, GA	22986	1.419
St. Helena, LA	10759	1.418
Jenkins, GA	8725	1.416
Sevier, AR	16297	1.412
Manassas Park City, VA	11642	1.41
Amherst, VA	32239	1.407
Laurel, KY	56979	1.407
Sumter, AL	13606	1.406
Falls, TX	17547	1.404
Hardee, FL	28621	1.401
Acadia, LA	60457	1.395
Harrisonburg City, VA	40885	1.394
Dickenson, VA	16182	1.393
Greene, AL	9374	1.391
Echols, GA	4274	1.39
Lee, KY	7648	1.382
Dillon, SC	30984	1.382
Ochiltree, TX	9550	1.376
Long, GA	11452	1.375
Webster, WV	9696	1.372
Poinsett, AR	25086	1.371
Gonzales, TX	19566	1.363
Lawrence, KY	16321	1.358
Jefferson, GA	16768	1.357
Pickett, TN	4855	1.347
Overton, TN	20740	1.334
Mississippi, AR	47517	1.325
Sterling, TX	1246	1.323
Wilcox, AL	12911	1.313
Plaquemines, LA	22512	1.306
Allen, KY	18788	1.303
Radford City, VA	14525	1.301

Menifee, KY	6788	1.295
Hendry, FL	40459	1.295
Clay, GA	3180	1.294
Quitman, GA	2486	1.291
Macon, AL	22594	1.29
Cumberland, KY	7046	1.289
Castro, TX	7449	1.281
Clay, KY	24052	1.278
Carter, KY	27365	1.274
Franklin, LA	20455	1.272
Lafourche, LA	93554	1.268
Haywood, TN	19405	1.263
Breathitt, KY	15924	1.257
Floyd, TX	7053	1.253
Clinch, GA	6897	1.251
Murray, GA	41398	1.25
Quitman, MS	9289	1.249
Robertson, KY	2332	1.248
Phillips, AR	23331	1.245
Lynn, TX	6212	1.244
Macon, TN	21726	1.24
Cumberland, VA	9465	1.24
Fentress, TN	17480	1.239
Lamb, TX	14244	1.236
Butler, KY	13397	1.234
Holmes, MS	20866	1.227
Martin, TX	4441	1.227
Grainger, TN	22453	1.222
Sutton, TX	4281	1.215
Hart, KY	18547	1.215
Claiborne, MS	11487	1.21
Taliaferro, GA	1877	1.208
Sharkey, MS	5851	1.206
Crockett, TX	3879	1.202
Lowndes, AL	12759	1.197
Perry, AL	11186	1.179
Van Buren, TN	5448	1.174
Bath, KY	11707	1.168
Clinton, KY	9566	1.168
Schleicher, TX	2776	1.164
Edmonson, KY	12054	1.164
Jackson, TN	10918	1.159
Duval, TX	12437	1.155
Adair, KY	17650	1.152
Crane, TX	3845	1.141
Atascosa, TX	43876	1.141
Metcalfe, KY	10334	1.138
Crosby, TX	6549	1.131
Todd, KY	12101	1.119
Bailey, TX	6597	1.115

Wolfe, KY	7095	1.106
St. Martin, LA	51341	1.106
Grundy, TN	14499	1.104
Clay, TN	8055	1.102
Summers, WV	13531	1.095
Estill, KY	15163	1.091
Lewis, KY	14012	1.079
Reagan, TX	3022	1.072
Leslie, KY	11973	1.029
Union, TN	19086	1.027
Warren, GA	5949	1.018
Wayne, KY	20504	1.016
Martin, KY	12093	1.007
Kenedy, TX	402	1.006
Tunica, MS	10419	0.995
Assumption, LA	23472	0.977
Winkler, TX	6609	0.955
Atkinson, GA	8047	0.947
Cochran, TX	3214	0.931
Casey, KY	16326	0.926
Hancock, TN	6713	0.914
Deaf Smith, TX	18623	0.903
Powell, KY	13825	0.896
Humphreys, MS	10393	0.892
Reeves, TX	11466	0.873
Knott, KY	17536	0.866
McCreary, KY	17354	0.855
Uvalde, TX	27050	0.84
Baker, GA	4098	0.839
La Salle, TX	5969	0.837
Elliott, KY	7187	0.817
Yoakum, TX	7438	0.804
Jackson, KY	13810	0.781
Jim Hogg, TX	5027	0.781
Culberson, TX	2525	0.767
Owsley, KY	4690	0.73
Knox, KY	32527	0.724
Parmer, TX	9714	0.716
Magoffin, KY	13449	0.713
Gaines, TX	15008	0.597
Dimmit, TX	10385	0.551
Val Verde, TX	48145	0.545
Brooks, TX	7731	0.527
Cameron, TX	387717	0.451
Webb, TX	231470	0.281
Hidalgo, TX	700634	0.273
Willacy, TX	20645	0.232
Zapata, TX	13615	0.204
Zavala, TX	12036	-0.108
Hudspeth, TX	3320	-0.167

Maverick, TX	52298	-0.281
Presidio, TX	7713	-0.334
Starr, TX	61780	-0.804