HOUSING AND HEALTH SERVICES COORDINATION COUNCIL (HHSCC) 2-1-1 TEXAS INFORMATION AND REFERRAL NETWORK EVALUATION

TEXAS STATE UNIVERSITY

The rising STAR of Texas

CSi San Marcos

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1.0 EXECUTIVE SUMMARY

1.1 Key Findings

- Texas has an efficient and effective 2-1-1 Information and Referral Network ("2-1-1 TIRN"). Texas 2-1-1 handles more calls than any other state and unlike many states, has full coverage of the entire state. Texas uses a hybrid model for service delivery that combines the efficiency of the centralized statewide model with the local specialization of the decentralized regional model.

- Relatively few 2-1-1 users visit the 2-1-1 website. In 2013, 2-1-1 received 2,579,349 calls while the 2-1-1 web site had 701,091 visits. Thus, about 78.6% of all 2-1-1 inquiries came via telephone call. Also, the number of web site visits in 2013 was down considerably from 2012 and lower all years since 2009. While not all Texans have easy access to the Internet, shifting more inquiries to the newly re-designed 2-1-1 web site would reduce the need for costly phone assistance and/or increase the capacity of 2-1-1 services with minimal additional cost.

- A significant majority of 2-1-1 referrals are for a relatively small number of services. While phone referral data include 3,170 unique types of services, 82.6% of these were for the top 25 types of referrals. Efforts to train 2-1-1 call specialists and efforts to expand the network of 2-1-1 services should focus on these types of needs and referrals.

- The rate of 2-1-1 calls varies by geography. Based on the population distribution, certain areas (panhandle, east Texas) have a disproportionately high number of 2-1-1 calls while other areas (urban areas, Rio Grande Valley) have a disproportionately low number of calls. This may suggest a need for increased marketing of the 2-1-1 program in under-represented areas.

- While urban areas tend to make fewer calls to 2-1-1 relative to their population, these areas are over-represented in referrals related to Housing and Shelter, Income Support and Assistance, Health Care, and Food and Meals. While these areas are targets for more marketing, marketing efforts should emphasize the variety of information and referrals that the 2-1-1 TIRN can provide.

- Based on a limited assessment conducted for this study, the 2-1-1 call specialists and taxonomy-driven searches on the 2-1-1 web site often provide referrals that

meet the users' needs and are located close to the user. However, inquiries for rural areas and/or for less common services sometimes fail to identify any resources and web searches using open-ended keywords are not always effective.

1.2 Key Recommendations

- The entry of state-provided, state-funded, and statewide resources should be more consistently integrated into the 2-1-1 database. Regional call centers in Texas effectively identify and update their databases with local and region-specific resources, but do not always integrate state resources in a consistent way. Also, some state agencies may not regularly provide and update lists of resources to include in the 2-1-1 database.

- The 2-1-1 TIRN should better track use of the 2-1-1 service by people with disabilities, particularly the use of the "Disability Services" online clearinghouse. While 2-1-1 services are accessible to Texans with disabilities, the available data do not allow a good understanding of how and to what extent people with disabilities use the 2-1-1 TIRN. Better tracking of this would help ensure that their needs are met and provide data that would help justify continued federal funding for related services.

- The TIRN should add a link to the "Disability Services" search function at the top of the homepage next to the "Services for People with Mental Illness" tab. TDHCA and 2-1-1 staff used federal grant dollars to develop the online clearinghouse and before the web site was updated, the "Disability Services" search function was at the top of the home page.

- The 2-1-1 TIRN should collect (or make available for analysis) additional data about 2-1-1 referrals and users. This would provide a richer dataset that could suggest further improvements of 2-1-1 services and also provide a better understanding of the needs of Texans.

- The 2-1-1 TIRN and agencies that refer Texans to 2-1-1 should promote awareness of and encourage the use of the 2-1-1 web site. This could potentially bring in new types of users who are unlikely to use the 2-1-1 phone system. In addition, the web site is more cost-effective than the use of call specialists. Initially, a statewide marketing effort to promote the web site would be preferable to regional efforts to ensure overall consistency in the level of marketing.

- The 2-1-1 TIRN should request a follow-up assessment by DARS to review the revised web site and should correct any 508 compliance failures.

2.0 BACKGROUND OF THE STUDY

The research that led to this report was conducted in June – August of 2014 by the Center for Sociological Inquiry ("CSI") at Texas State University. The primary CSI research team consisted of three Texas State University Faculty members:

- Dr. Jonathan Wivagg – Principal Investigator
- Mr. Colin Pearson – Data Analyst
- Dr. Joseph Kotarba – Contract Manager

The CSI team conducted this research under contract with the Texas Department of Housing and Community Affairs ("TDHCA") on behalf of the Housing and Health Services Coordination Council and met regularly with TDHCA staff members Terri Richard, Naomi Trejo and Elizabeth Yevich. The CSI team also coordinated with Beth Wick, the Program Manager of TIRN.

This study seeks to provide a better understanding of the 2-1-1 TIRN in Texas. The TIRN exists as a formal, comprehensive, and statewide service that provides Texans with information about a variety of health and human services and provides specific referrals to local organizations that provide these services. The designation "2-1-1" refers to the specialized dialing code assigned by the federal government for information and referral services. All 50 states, Washington, D.C., and Puerto Rico maintain 2-1-1 Information and Referral systems, though implementation varies across states.

In Texas, calling 2-1-1 provides a menu of options and the TIRN is responsible for handling calls related to community resource information and referrals, the Emergency Assistance Registry (which callers use to register their participation in evacuations and other emergency responses), and disaster response (only available during specific disaster situations). This report focuses on the information and referrals related to community services.

Since 2002, Texas' approach to the 2-1-1 network has been a hybrid model that allows statewide integration with a single phone system and a single database, but that uses 25 regional Area Information Centers ("AICs"). Each AIC is operated by subcontractors with standardized training for call specialists and other staff.

The integrated phone system and database allow standardization of best practices across the state. While most calls to 2-1-1 are routed to the AIC in the same geographic region as the caller's area code, the single phone system routes calls to other AICs when the "primary" AIC is busy. Because all call specialists access the same database, each call specialist has access to all of the available resources in the database for referrals for each city or county regardless of where they are located.

The use of the 25 regional AICs provides important advantages. Each AIC has an outreach coordinator who is responsible for identifying service providers in the area and updating the database. Doing this locally allows the outreach coordinators to specialize in a specific area and more thoroughly identify the organizations that are available to provide resources. While the single phone system allows important flexibility that minimizes waiting time for callers by transferring calls to other AICs when needed, most calls are routed to the AIC where the caller is located. While local call specialists access the single statewide database, local call specialists often have local knowledge of the geography, transit options, and other information that can help callers find the resources they need.

The 2-1-1 network also includes a website – www.211Texas.org – that allows users to search for services on their own. As of this report writing in August 2014, the website had just undergone a significant overhaul. The website shares the same database as the phone system, but provides a custom interface designed to facilitate searches by untrained users.

Research Goals

The primary activity of this research was to analyze data from the 2-1-1 database in an effort to answer the following questions:

- What is the extent of 2-1-1 use in Texas?
- What are the characteristics of 2-1-1 users?
- What are the needs of 2-1-1 users?

Other key activities included:

- Researching efforts to identify potential marketing needs
- Comparing Texas' 2-1-1 TIRN with other states
- Evaluating the 2-1-1 website
- Determining how 2-1-1 access accommodates the needs of Texans with disabilities

Answers to these research questions and results of the analyses provide the Housing and Human Services Coordination Council (HHSCC) with a better understanding of how Texans use the 2-1-1 program. Results will inform planning and decision-making as the state increases its efforts to expand Service-Enriched Housing. Service-Enriched Housing is defined as: integrated, affordable, and accessible housing that provides residents with the opportunity to receive on-site or off-site health-related and other services and supports that foster independence in living and decision-making for individuals with disabilities and persons who are elderly.

One other key focus of this effort is to identify recommendations for future data collection and research efforts. During the course of this project, it became evident that the available data sources were not sufficient to answer all of the data needs identified in the contract and expressed in subsequent meetings with TDCHA. Sections 7 and 8 of this report identify some additional data about 2-1-1 use that would make future data analysis and reporting more useful and informative. It also suggests some further research efforts that might yield additional useful information but that were beyond the scope of this project.

3.0 PROGRAM CONCLUSIONS AND RECOMMENDATIONS

This section elaborates on the key conclusions presented in the Executive Summary above. In addition to providing further details, this section also includes the data sources and analyses that support these conclusions. Further description of the data sources, analyses, and research methodology are available in Appendix A. This section focuses on the strengths and potential needs related to the structure, implementation, and management of the 2-1-1 TIRN and on how Texans use 2-1-1.

3.1 Program Strengths

Overall, Texas has an effective 2-1-1 program. In addition to allowing total statewide coverage for all Texas residents, the hybrid approach combining a centralized phone system and database with regional management centers leverages the efficiencies of statewide consolidation and the flexibility of allowing regional AIC's to tailor their assistance and operations to the needs of their local areas. Support for this conclusion comes from national research that evaluated 2-1-1 programs nationwide and found that hybrid models are the most cost-effective approach and have the highest benefit/cost ratio for society[1].

In testing scenarios, Texas State CSI researchers verified that call specialists in regional AIC's were knowledgeable about local resources even without submitting database queries, confirming that the expected benefits of local familiarity and specialization are present. Also, regional AIC's have staff that represent the populations they serve. Many regional call specialists speak Spanish and call specialists use translation services as needed to accommodate other languages to ensure that 2-1-1 is accessible to all Texans.

One particularly strong aspect of the program is the 2-1-1 phone system. Texas' 2-1-1 phone network handles more calls than any other state. National data from 2012 show that Texas had 3,150,799 calls and that this was 750,000 more calls than the next closest state (New York). Ohio, California, and Florida were next and all had less than half the number of calls that were received in Texas.

Table 3.1 Total 2-1-1 Calls in 2012 for Top 5 States

State	Total 2-1-1 Calls in 2012
Texas	3,150,799
New York	2,398,763
Ohio	1,395,030
California	1,296,176
Florida	1,129,276

[1] Ray Marshall Center for the Study of Human Resources at the University of Texas at Austin, 2004.

The persistent large volume of calls year after year suggests that users find the system helpful. Test calls to 2-1-1 were answered by professional-sounding call specialists and when referrals were available for the requested need and location, call specialists were able to quickly identify and provide these resources. Analysis of the data collected from 2-1-1 phone calls showed that while the vast majority of calls are related to a fairly small number of issues, call specialists referred 2-1-1 callers to over 3,000 unique types of services.

The large number of referral types indicates that call specialists are well trained and that the database of resources included in 2-1-1 is extensive. Also, testing of the 2-1-1 call system and the web site (which shares the same resource database as the call system) confirmed that database searches generally provide referrals that are relevant to the presenting needs of callers or web users and that these resources are easily sortable based on distance from the 2-1-1 user so that referrals are as close as possible (though not all types of needs generate referrals for all locations).

As of this report writing, 2-1-1 had just deployed a substantially revised and updated web site. While there is an exceedingly large number of unique searches and queries possible using the 2-1-1 web site, the Texas State CSI team tried a number of scenarios. Though there were some minor technical issues and areas for improvement (described in the following section), our testing found that the re-designed web site offered more intuitive and refined searching methods, including a taxonomy that starts with the basic category of need and then filters down to more specific needs.

The web site also offered both direct and indirect referrals. Direct referrals presented resources directly available in the 2-1-1 database. The results for direct referrals displayed the name and key information about each resource (eligibility, services provided, location, link to web site, etc.) and allowed a quick and easy way to sort the resources by proximity to a specified ZIP code. The direct referrals also allowed easy search modification using a “See Also” link that suggested related search terms (for example, using the link to search for Homeless Shelters provided related terms like Homeless Permanent Supportive Housing and Cold Weather Shelters/Warming Centers).

Indirect referrals were search options that linked directly to another state agency. For example, a scenario of a veteran looking for assistance in purchasing a home links from the 2-1-1 web site to the web site for the Veterans’ Land Board, which readily provided a list of lenders that participated in the Veterans Housing Assistance Program. The combination of direct and indirect referral options helps the 2-1-1 web site serve as a “one stop” resource for people who need services and gives users access to the

extensive 2-1-1 database as well as access to other state agencies that provide specialized assistance related to their needs.

3.2 Program Needs

As discussed in the previous section, findings from this research suggest that Texas maintains an effective and efficient 2-1-1 network. Part of the success of the 2-1-1 TIRN has come from continual efforts to identify and adapt to changing needs. The following sections identify needs and recommendations so that the 2-1-1 TIRN can continue the process of evaluation and improvement with a better understanding of key data and issues.

The re-designed 2-1-1 web site is a significant improvement from the previous site and, as mentioned above, the web site works well and makes it easy to find relevant direct and indirect referrals. However, this research identified several needs related to the 2-1-1 web site that could further improve its usefulness. First, data from the web site show a total of 701,091 unique visits to the 2-1-1 web site in 2013 versus over 3 million calls made to the 2-1-1 phone system. With only about than 21% of all 2-1-1 inquiries coming via web, increasing the use of the web site could alleviate some of the more costly phone service and/or expand the service capacity of the 2-1-1 system with minimal additional cost. It is also possible that more awareness and more use of the web site might reach a currently underserved group of Texans who need services but who are less likely to seek assistance by phone (possibly younger Texans, for example).

There are two examples that show that web sites can be an effective way to provide referrals. The TDHCA “Help for Texans” website provides referrals for housing-related needs such as rent and utilities assistance (which are also very common needs among 2-1-1 callers). From January 2013 through March 2014, the TDHCA Help for Texans service provided over 70,000 referrals for rent and utilities assistance and about 93% of these referrals were provided via the web site. In Arizona (another state using a hybrid model), about 80% of all 2-1-1 referrals are provided in response to web inquiries.

Another limitation of the web site is that as of this report, there were minimal data about how web site visitors use the site. While the phone database collects information about each caller (age, sex, veteran status, county, and types of referrals provided), the available web data simply show overall count of visits to the web site. Tracking additional information about searches (e.g. counts of visits to the Disability Services online clearinghouse) as well as information about users (e.g. ZIP code entered, demographic data) would allow a better understanding of how people use the web site and could provide web site designers with ideas for further improvements.

While the web site prominently displays the option to call 2-1-1 if web site visitors are unable to find what they need, there is no link on the web site that allows web users to report problems or questions. While some people who have trouble with the web site may call 2-1-1 and get the referrals they are seeking, others may give up. Even if they do call 2-1-1, they may not report (or call specialists may not record) having a problem with the web site. Adding a feedback option could provide valuable information that would help improve the web site. While additional costs would be incurred to have someone monitor the incoming feedback, resulting improvements to the web site could shift more traffic to the web and reduce the demand for 2-1-1 phone support.

In testing scenarios, Texas State CSI researchers noticed that some links appear under multiple general categories while others do not. For example, the link to Rent Payment Assistance is available on the Housing and Shelter menu page as well as on the Financial and Legal menu page. However, the links to the various utility service payments (Electric Service Payment, Heating Fuel Payment, Water Service Payment, etc.) appear on the Financial and Legal menu page but not on the Housing and Shelter menu page (where we initially tried to find these links). While cross-posting too many links on multiple menu pages would make the initial search category design less helpful, the web site should make sure that key links (especially for highly popular requests like utility assistance) are easy to find.

The 2-1-1 website's keyword search function provided irrelevant referrals more often than not. A portion of the problem with the search can be attributed to the lack of knowledge of the user. Many referrals require the user to know specific key words in order for the search to provide meaningful results. For example, one web search scenario was for housing for individuals with a criminal background. A search for "housing criminal background" with no ZIP code preference did not initially yield relevant results. However, using the search term "ex-offender housing" provided much more relevant results.

The ZIP code feature on the web site also has a small problem. On the web site home page, the keyword search requires both the search terms and a ZIP code. The following screen, which displays referrals based on both relevance and ZIP code, also allows for the user to search. If a user simply hits search again at this second screen without changing the search term, the ZIP code criteria is automatically dropped. The issue that arises is that if an individual simply clicks search again from this page, relevant results may be displayed, but are misleading because they are no longer geographically confined.

Before the recent re-design, the 2-1-1 web site had a link on the home page dedicated to helping people with disabilities find services and housing in a single search. This link brought up a clearinghouse page that allowed a variety of search options for services

and housing specifically for Texans with disabilities. As this clearinghouse search page was the result of dedicated effort and funds to create a comprehensive "one-stop" web resource for all types of services for people with disabilities, the Texas State CSI recommends that the new web site continue to include a link to this clearinghouse page as a separate tab on the home page (similar to the dedicated tab for Services for Persons with Mental Illness).

In September of 2013, the Texas Department of Assistive and Rehabilitation Services ("DARS") conducted a thorough review of the previous version of the web site to assess 508 compliance. The DARS assessment revealed several areas where the main web site and the clearinghouse web site for people with disabilities failed to adequately accommodate the needs of people with some types of disabilities. We recommend a follow-up assessment by DARS to review the new web site and the correction of any 508 compliance failures.

While the hybrid model is effective and the Texas 2-1-1 TIRN has implemented this well, this approach has two inherent risks – the risk of overlap of tasks (with both the state and regions redundantly performing the same tasks) and the risk of ambiguous task responsibility (neither the state nor the regions fully performing tasks). From analysis of data, testing program operations, and in-depth discussions with 2-1-1 Project Manager Beth Wick, the Texas State CSI team found little evidence of task overlap. However, our efforts revealed two areas where more direct state-level management might improve the 2-1-1 program.

First, the variation of 2-1-1 call volume across counties relative to county population suggests that regional AIC's may not be consistent about how and to what extent they market the 2-1-1 program. Some statewide marketing or some state-provided guidelines may help ensure that more Texans who need this service are aware of it. Details of the disproportionate use of 2-1-1 by geography are presented below in Section 4 and specific marketing implications are discussed further in Section 6.

Second, more standardization in the way regional outreach coordinators update the 2-1-1 database would be helpful. State agencies provide the 2-1-1 system with a list of state-provided resources, but each region's outreach coordinator is responsible for updating the 2-1-1 database with resources in their region. Having knowledgeable local staff update the database is an effective approach and allows accurate updating of local services as they become available (or unavailable); however, some state oversight to ensure statewide and state-provided resources are reliably included for all regions would help the database become more complete.

In one test scenario, a call to 2-1-1 requesting assistant with rent payment in Corpus Christi yielded two referrals while a similar request submitted to TDHCA generated five

different referrals in addition to a referral to the 2-1-1 phone network (but not the 2-1-1 web site). TDHCA provides a file each quarter to 2-1-1 with an updated list of contracted administrators and sub-recipients. Reliably updating the 2-1-1 database with all state-provided resources for all regions would allow 2-1-1 to provide the best referrals to all callers. State agencies that provide services should provide information about their programs to the 2-1-1 TIRN and TIRN should make sure that these are included in the database in all areas where these programs are available.

3.3 Recommendations

Based on the needs above, the Texas State CSI identified the following recommendations to enhance the efficiency and effectiveness of the Texas 2-1-1 TIRN. These recommendations are generally focused on the outcome rather than the process. While the findings of this research suggest what should be done, TIRN staff and stakeholders with a more in-depth understanding of TIRN operations and management should determine the specific process for implementing these recommendations.

This section provides a summary of the major recommendations. Specific needs and analyses supporting these recommendations are detailed in the relevant sections of this report. Key recommendations are:

- Expand the resources available in the 2-1-1 TIRN database. Specifically, develop a more reliable system for updating the database with resources provided by Health and Human Services enterprise agencies, TDHCA and other state resources.
    - The state should consider an approach to enter these resources centrally and have outreach coordinators from AICs focus on identifying and updating local resources.
    - State agencies that provide services should have standard processes for submitting the services they provide for inclusion in the TIRN database and for providing updates as needed.
    - The state should consider a policy that requires agencies that provide services and receive state funding to be listed in the 2-1-1 database.

- Improve marketing of the 2-1-1 TIRN.
    - Increase marketing of the web site done by the state. Reports from other state agencies (such as the TDHCA “Help for Texans” web site) and from 2-1-1 programs in other states (like Arizona) show that web sites have the potential to provide a significant number of referrals, but Texas’ 2-1-1 web site is infrequently used. Marketing of the web site should be done state-

wide and centrally by the state rather than AICs to ensure marketing is consistent in all areas of the state.
    - Use marketing to expand awareness of the TIRN's potential. Many Texans use the TIRN to get referrals related to housing, food, and income-related needs, but relatively few people call about the other "Big Count" (the 16 broad categories of needs defined by the national 2-1-1 program) needs.

- Record more data about 2-1-1 users.
    - Track web site visits to identify search paths used (including Disability Services and ZIP code) and final referral types provided. If feasible, collect additional data about web users (age, sex, veteran status, etc.).
    - Include data about the agencies referred to callers or web users. One limitation of the dataset available for this report is that it did not include calls that did not result in a referral (e.g. no referral available, unmet need) and only provided the classification of the referral type (and not the actual agencies that were provided).

- Request an updated 508 compliance assessment for the revised 2-1-1 TIRN web site and address any non-compliance issues.

- Continue research and data gathering about 2-1-1 use and needs and use the research to continually assess and improve services.
    - When additional data are available, expand this report to further analyze web site use and the use of 2-1-1 by people with disabilities.

- Consider additional research efforts that could provide useful information about the 2-1-1 TIRN such as:
    - An analysis of referral data to more fully assess the appropriateness of 2-1-1 referrals and the comprehensiveness of resources contained in the 2-1-1 database.
    - A survey of 2-1-1 callers to discover whether they found referrals helpful and to assess their experience with the 2-1-1 phone system.
    - Usability testing of the 2-1-1 web site to better understand how real-world users access and use the site to search for referrals.
    - Research to better understand the effectiveness of marketing efforts.
    - Further analysis of referrals relative to estimated needs for specific types of referrals and for specific populations or geographic areas.

4.0 NEEDS OF TEXAS 2-1-1 USERS

This section explores the needs of Texas 2-1-1 users as indicated by the nature of the referrals made as a result of their calls to 2-1-1. The data from the 2-1-1 system available for analysis includes the nature of the referral made at the conclusion of the call. While in most cases the nature of the referral very likely matched the underlying need expressed by the caller, it is possible that the referral coded did not exactly match the original need of the caller. Consequently, this report will focus on the referral and use this term. However, the nature of the referrals is a very good indicator of the needs expressed by Texans who called 2-1-1.

Because the data available at the time of this report did not include the nature of inquiries and referrals made through the web site, the analysis in this section focuses on the phone data. However, as mentioned above, about 79% of inquiries to Texas 2-1-1 came via phone. Therefore, the analysis of data from the phone database is a reasonably good measure of the 2-1-1 program overall, though it is possible that including data about the nature of referrals obtained through web visits would change some of these results. The analysis is based on 3,285,271 calls made to 2-1-1 between January 1, 2013 and March 31, 2014. Because some calls resulted in multiple referral types, the total number of referrals in this timeframe is 4,021,037.

4.1 Referrals by Type

The 2-1-1 system provides information and referrals about a wide variety of services. The following tables and analyses use both the Big Count category as well as the final, specific taxonomy code for each referral. For example, “rent payment assistance” is one of the specific referral types (with a corresponding taxonomy code) that is included in the “Housing and Utilities” Big Count category. Table 4.1 below shows the number and distribution of referrals by Big Count Category.

Table 4.1 Big Count Categories – Referrals (accounts for individual calls with multiple referrals)

Category	***Frequency***	***%***
Food & Meals	1497436	37.2
Income Support & Assistance	1075624	26.7
Housing & Utilities	828405	20.6
Health Care	122169	3.0
Individual, Family & Community Support	114422	2.8
Legal, Consumer & Public Safety	110132	2.7
Transportation	59541	1.5
Clothing, Personal & Household	54354	1.4
Disaster Services	46269	1.2
Mental Health & Addictions	35678	0.9
Education	25812	0.6
Employment	21627	0.5
Information Services	11043	0.3
Other Governmental & Economic Services	7419	0.2
Volunteers & Donations	6824	0.2
Arts & Recreation	4282	0.1

As shown in the table above, 84.5% of all referrals were made in the three Big Count Categories of Food and Meals, Income Support and Assistance, and Housing and Utilities. No other category exceeds 3% of total referrals and many individual categories account for less than 1% of total referrals.

Table 4.2 below shows the 25 most frequent referrals by specific referral code.

Table 4.2 Top 25 Referrals (regardless of Big Count category)

Referral	*Category*	*Frequency*	*%*
Food Stamps/SNAP	Food	1283862	31.9
Medicaid Applications	Income	623224	15.5
Electric Service Payment Assistance	Housing	284221	7.1
Rent Payment Assistance	Housing	205414	5.1
Food Pantries	Food	161429	4.0
Medicaid	Income	88913	2.2
Medicare Savings Programs	Income	78613	2.0
VITA Program Sites	Income	60363	1.5
Housing Authorities	Housing	57813	1.4
CHIP Programs	Income	55553	1.4
Child Care Expense Assistance	Income	49852	1.2
Water Service Payment Assistance	Housing	38624	1.0
Gas Service Payment Assistance	Housing	37675	0.9
Community Clinics	Healthcare	35810	0.9
Evacuation Transportation	Disaster	35096	0.9
Homeless Shelter	Housing	33645	0.8
TANF Applications	Income	32634	0.8
Medical Appointments Transportation	Trans	26279	0.7
Low Income/Subsidized Private Rental Housing	Housing	22361	0.6
General Dentistry	Healthcare	21338	0.5
Section 8 Housing Choice Vouchers	Housing	20319	0.5
General Legal Aid	Legal	19188	0.5
Adult State/Local Health Insurance Programs	Income	17566	0.4
Holiday Gifts/Toys	Volunteer	17538	0.4
Medicaid Buy In Programs	Income	17519	0.4

Even though 2-1-1 calls result in over 3,000 types of specific referrals, the top 25 referrals account for 82.5% of total referrals made. The referrals are highly concentrated among a relatively small number of types. Almost one-third (31.9%) of 2-1-1 referrals are for Food Stamps/SNAP. Two-thirds of all referrals are for seven types of specific services (Food Stamps/SNAP, Medicaid Applications, Electric Service Payment Assistance, Food Pantries, Medicaid, Medicare Savings Programs). Considering the more than 3,000 types of referrals made in 2013 and early 2014, this is a very high concentration. Because these services are so frequently referred, regional and statewide efforts can focus on these types of needs when looking for new organizations to add to the database and in preparing call specialists to handle calls.

Tables 4.3 through 4.18 show the top ten specific referral types for each Big Count category. In these tables, the percentage is computed as a percentage of all referrals within each Big Count Category (rather than as a percentage of all referrals).

Table 4.3 Arts, Culture, and Recreation

Referral	***Frequency***	***%***
Computer and Related Technology Classes	771	18.0
Day Camps	447	10.4
Boys/Girls Clubs	401	9.4
General Recreational Activities/Sports	397	9.3
Youth Enrichment Programs	272	6.4
Recreation Centers	257	6.0
Government Buildings/Installations	255	6.0
Summer Camps	169	3.9
Hotels/Motels	136	3.2
Exercise Classes/Groups	119	2.8

Table 4.4 Clothing, Personal, and Household

Referral	***Frequency***	***%***
Cell Phones	13346	24.6
General Clothing Provision	9220	17.0
Fans	5242	9.6
Furniture	4364	8.0
Diapers	3596	6.6
Thrift Shops	3435	6.3
School Clothing	2338	4.3
Air Conditioners	2324	4.3
Baby Clothing	1173	2.2
Heaters	1171	2.2

Table 4.5 Disaster Services

Referral	***Frequency***	***%***
Evacuation Transportation	35096	75.9
Special Needs Registries	7772	16.8
Red Cross Disaster Service Centers	463	1.0
Disaster Relief/Recovery Organizations	364	0.8
Extreme Heat Cooling Centers	343	0.7
Cold Weather Shelters/Warming Centers	250	0.5
Disaster Preparedness Information	233	0.5
General Disaster Information	211	0.5
Disaster Related Clothing/Emergency Supplies	112	0.2
Mass Care Shelters	97	0.2

Table 4.6 Education

Referral	*Frequency*	*%*
Free School Supplies	7371	28.6
Early Head Start	3439	13.3
GED/High School Equivalency Test Instruction	3178	12.3
Head Start	2616	10.1
School Districts	2097	8.1
English as a Second Language	1695	6.6
Adult Basic Education	439	1.7
School Supplies	383	1.5
Community Colleges	369	1.4
GED/High School Equivalency Test Sites	296	1.1

Table 4.7 Employment

Referral	*Frequency*	*%*
Job Search/Placement	7876	36.4
Comprehensive Job Assistance Centers	4411	20.4
Job Search Resource Centers	1785	8.3
Vocational Rehabilitation	1432	6.6
Job Information	1276	5.9
Job Training Formats	1056	4.9
Career Counseling	542	2.5
Job Readiness	401	1.9
Senior Community Service Employment Programs	363	1.7
Training and Employment Programs	196	0.9

Table 4.8 Food and Meals

Referral	*Frequency*	*%*
Food Stamps/SNAP	1283862	85.7
Food Pantries	161429	10.8
WIC	13725	0.9
Food Vouchers	10789	0.7
Food Stamps/SNAP Applications	7579	0.5
Home Delivered Meals	7447	0.5
Food Banks/Food Distribution Warehouses	3571	0.2
Formula/Baby Food	2549	0.2
Summer Food Service Programs	2523	0.2
Soup Kitchens	1947	0.1

Table 4.9 Health Care

Referral	*Frequency*	*%*
Community Clinics	35810	29.3
General Dentistry	21338	17.5
Childhood Immunizations	5334	4.4
Emergency Dental Care	4149	3.4
Adolescent/Adult Immunizations	3756	3.1
Women's Health Centers	3338	2.7
Pregnancy Testing	2408	2.0
Long Term Home Health Care	2280	1.9
Home Health Aide Services	2142	1.8
Pap Tests	1799	1.5

Table 4.10 Housing and Utilities

Referral	*Frequency*	*%*
Electric Service Payment Assistance	284221	34.3
Rent Payment Assistance	205414	24.8
Housing Authorities	57813	7.0
Water Service Payment Assistance	38624	4.7
Gas Service Payment Assistance	37675	4.5
Homeless Shelter	33645	4.1
Low Income/Subsidized Private Rental Housing	22361	2.7
Section 8 Housing Choice Vouchers	20319	2.5
Discounted Utility Services	17201	2.1
Transitional Housing/Shelter	13414	1.6

Table 4.11 Income Support and Assistance

Referral	*Frequency*	*%*
Medicaid Applications	623224	57.9
Medicaid	88913	8.3
Medicare Savings Programs	78613	7.3
VITA Program Sites	60363	5.6
CHIP Programs	55553	5.2
Child Care Expense Assistance	49852	4.6
TANF Applications	32634	3.0
Adult State/Local Health Insurance Programs	17566	1.6
Medicaid Buy In Programs	17519	1.6
Social Security Disability Insurance	7079	0.7

Table 4.12 Individual, Family, and Community Support

Referral	*Frequency*	*%*
Holiday Gifts/Toys	17538	15.3
Area Agencies on Aging	10543	9.2
Adult Protective Intervention/Investigation	10539	9.2
Child Care Provider Referrals	6984	6.1
In Home Attendants for People With Physical Disabilities	5777	5.0
Transitional Case/Care Management	4426	3.9
Benefits Screening	3938	3.4
Children's Protective Services	3860	3.4
Animal Control	3696	3.2
Home Maintenance and Minor Repair Services	3366	2.9

Table 4.13 Information Services

Referral	*Frequency*	*%*
311 Services	3144	28.5
Directory Assistance	2901	26.3
Specialized Information and Referral	1204	10.9
City Government Information Lines	1027	9.3
Comprehensive Information and Referral	438	4.0
2-1-1 Systems	425	3.8
2-1-1 Lead Agencies	323	2.9
Public Libraries	282	2.6
Medical Information Lines	273	2.5
Outreach Programs	253	2.3

Table 4.14 Legal, Consumer, and Public Safety

Referral	*Frequency*	*%*
General Legal Aid	19188	17.4
Social Security Numbers	13611	12.4
Child Support Assistance/Enforcement	7814	7.1
Birth Certificates	4117	3.7
Veteran Benefits Assistance	3925	3.6
Driver Licenses	3690	3.4
Municipal Police	3675	3.3
Tenant Rights Information/Counseling	2754	2.5
Certificates/Forms Assistance	2441	2.2
General Benefits Assistance	2257	2.0

Table 4.15 Other Government and Economic Services

Referral	*Frequency*	*%*
Post Offices	1003	13.5
Voter Registration Offices	514	6.9
Aging Associations	355	4.8
City Departments/Offices	346	4.7
Large Item Trash/Garbage Pickup	323	4.4
Trash/Garbage Pickup	302	4.1
Individual Development Accounts	290	3.9
State Government Agencies	261	3.5
Nongovernmental Agency Departments	242	3.3
Home Care/Hospice Associations	200	2.7

Table 4.16 Mental Health and Addictions

Referral	*Frequency*	*%*
Individual Counseling	3207	9.0
Domestic Violence Hotlines	1907	5.3
Mental Health Evaluation	1844	5.2
Central Intake/Assessment for Psychiatric Services	1829	5.1
Family Counseling	1705	4.8
Community Mental Health Agencies	1582	4.4
Mental Health Screening	1420	4.0
Child Abuse Hotlines	1246	3.5
Adolescent/Youth Counseling	1120	3.1
General Crisis Intervention Hotlines	950	2.7

Table 4.17 Transportation

Referral	*Frequency*	*%*
Medical Appointments Transportation	26279	44.1
Gas Money	7994	13.4
Disability Related Transportation	4445	7.5
Local Bus Transit Services	3882	6.5
Bus Fare	3859	6.5
Senior Ride Programs	2876	4.8
Indigent Transportation	1805	3.0
General Paratransit/Community Ride Programs	1072	1.8
Travelers Assistance	1012	1.7
Consulates/Foreign Government Representatives	880	1.5

Table 4.18 Volunteers and Donations

Referral	*Frequency*	*%*
General Clothing Donation Programs	1290	18.9
Food Donation Programs	818	12.0
Donation Pickups	716	10.5
Household Goods Donation Programs	715	10.5
Volunteer Recruitment/Placement	296	4.3
Baby Clothing/Diaper Donation Programs	219	3.2
Wheelchair Donation Programs	196	2.9
Medical Supplies Donation Programs	184	2.7
School Supplies Donation Programs	183	2.7
Donation Drop Off Points	157	2.3

4.2 Referrals by Demographics

Analysis of 2-1-1 call data shows some trends in the demographic characteristics of callers. Call specialists ask all 2-1-1 callers for their age, ZIP code, and whether they are a veteran. They also record the gender of each caller. This section summarizes the overall demographics of 2-1-1 callers and also looks at how demographic distributions change for different types of referrals. Table 4.19 below shows the demographic distribution of Big Count referral categories. Table 4.20 shows the demographic distribution of specific referrals. Table 4.21 analyzes the most common referrals provided to older Texans.

Table 4.19 Big Count Referral Categories by Demographics

Big Count Category	*Male*	*Female*	*Age (0-17)*	*Age (18-29)*	*Age (30-39)*	*Age (40-59)*	*Age (60+)*	*Urban*	*Rural*
Total	**17.5%**	**82.5%**	**1.4%**	**26.3%**	**23.7%**	**32.5%**	**16.1%**	**90.3%**	**9.7%**
Arts & Recreation	16.0	84.0	7.2	18.3	24.7	33.2	16.6	97.7	2.3
Clothing, Personal & Household	18.2	81.8	1.5	21.3	21.7	34.3	21.2	93.5	6.5
Disaster Services	30.4	69.6	2.2	6.3	9.2	29.7	52.6	83.7	16.3
Education	10.7	89.3	10.6	34.7	30.9	20.6	3.2	97.3	2.7
Employment	26.3	73.7	1.6	27.3	24.1	37.4	9.6	94.8	5.2
Food & Meals	16.8	83.2	1.0	28.5	25.8	32.6	12.1	89.5	10.5
Health Care	17.6	82.4	3.0	27.9	20.8	32.7	15.6	92.5	7.5
Housing & Utilities	19.4	80.6	0.6	23.5	22.6	37.3	16.0	92.4	7.6
Income Support & Assistance	15.3	84.7	1.9	28.0	23.6	28.0	18.4	88.6	11.4
Individual, Family & Community Support	16.9	83.1	2.5	17.9	17.9	27.8	33.9	92.9	7.1
Information Services	23.5	76.5	1.4	19.2	21.0	36.2	22.2	94.9	5.1
Legal, Consumer & Public Safety	22.0	78.0	1.7	21.4	22.0	35.5	19.5	93.3	6.7
Mental Health & Addictions	25.6	74.4	4.2	25.7	26.4	35.8	7.8	94.6	5.4
Other Governmental & Economic Services	24.1	75.9	2.6	14.7	17.7	39.8	25.2	94.5	5.5
Transportation	23.7	76.3	1.4	18.7	17.4	36.6	25.9	87.9	12.1
Volunteers & Donations	17.1	82.9	2.1	19.7	22.2	37.1	19.0	96.2	3.8

As shown, the vast majority of all referrals are made to female callers. While this is true in all Big Count Categories, males are better represented among referrals for Disaster Services, Employment, and Mental Health and Addictions and account for at least 25% of all referrals in these categories. As expected, a disproportionately high percentage of children under age 17 (and disproportionately low percentage of adults age 60+) received Education referrals. The age distribution was also disproportionate for Disaster Services referrals (very high among 60+ and low for other ages) and Mental Health and Addictions (low among 60+ and somewhat high among 0-17). About 90% of referrals were for people living in counties classified as urban based on Texas Government Code §2306.004(28a) that includes all counties within metropolitan statistical areas or adjacent to metropolitan statistical areas with a population of at least 25,000. Referrals for Arts and Recreation, Education, Volunteers and Donations were disproportionately urban while Disaster Services referrals were disproportionately rural.

Table 4.20 Top 25 Specific Referrals by Demographics

Referral Category	*Male*	*Female*	*Age (0-17)*	*Age (18-29)*	*Age (30-39)*	*Age (40-59)*	*Age (60+)*	*Urban*	*Rural*
Total	**17.5%**	**82.5%**	**1.4%**	**26.3%**	**23.7%**	**32.5%**	**16.1%**	**90.3%**	**9.7%**
Food Stamps/SNAP	16.4	83.6	1.0	29.6	26.1	31.4	11.9	88.9	11.1
Medicaid Applications	13.5	86.5	1.7	29.8	25.6	27.3	15.6	87.7	12.3
Electric Service Payment Assistance	18.3	81.7	0.4	18.9	22.1	39.4	19.2	91.0	9.0
Rent Payment Assistance	20.1	79.9	0.4	29.1	26.3	36.2	8.0	95.4	4.6
Food Pantries	19.8	80.2	1.1	20.3	24.7	41.7	12.2	92.7	7.3
Medicaid	14.4	85.6	2.3	29.1	24.2	26.3	18.0	85.7	14.3
Medicare Savings Programs	26.9	73.1	0.2	2.3	4.6	27.6	65.3	86.1	13.9
VITA Program Sites	24.4	75.6	1.7	17.2	21.6	41.3	18.1	97.2	2.8
Housing Authorities	17.4	82.6	1.1	35.5	20.1	31.1	12.3	90.7	9.3
CHIP Programs	11.6	88.4	3.6	27.6	38.8	29.7	2.3	90.1	9.9
Child Care Expense Assistance	5.3	94.7	6.4	59.9	23.6	9.3	0.8	92.9	7.1
Water Service Payment Assistance	18.3	81.7	0.4	16.9	25.3	42.1	15.3	93.1	6.9
Gas Service Payment Assistance	20.7	79.3	0.2	16.8	21.7	40.5	20.9	89.5	10.5
Community Clinics	18.1	81.9	3.2	28.2	23.6	36.0	9.0	92.4	7.6
Evacuation Transportation	32.4	67.6	3.9	2.9	5.5	25.3	62.4	82.8	17.2
Homeless Shelter	25.9	74.1	1.2	31.1	26.0	35.7	6.0	95.3	4.7
TANF Applications	10.3	89.7	1.1	42.3	27.7	25.0	4.0	90.7	9.3
Medical Appointments Transportation	18.0	82.0	2.2	19.8	15.5	33.6	28.9	84.7	15.3
Low Income/Subsidized Private Rental Housing	22.2	77.8	0.8	25.6	17.8	35.6	20.1	97.0	3.0
General Dentistry	22.1	77.9	1.5	20.7	16.7	36.2	24.9	90.8	9.2
Section 8 Housing Choice Vouchers	16.5	83.5	0.8	34.8	20.4	31.2	12.7	91.4	8.6
General Legal Aid	20.2	79.8	1.0	18.9	22.1	38.9	19.1	92.5	7.5
Adult State/Local Health Insurance Programs	23.4	76.6	0.8	25.0	21.0	41.0	12.1	89.6	10.4
Holiday Gifts/Toys	5.1	94.9	5.6	30.7	36.5	23.7	3.4	97.6	2.4
Medicaid Buy In Programs	19.6	80.4	0.9	18.2	15.7	30.0	35.2	86.9	13.1

Males tended to be over-represented in referrals for Evacuation Transportation, Homeless Shelters, and Medicare Savings Programs and relatively under-represented

in referrals for Holiday Gifts/Toys and Child Care Expense Assistance. There are some expected disproportionalities based on age with children and adults under 40 being over-represented (and older adults under-represented) among referrals for child-related services such as Child Care Expense Assistance, Holiday Gifts/Toys, CHIP programs, and TANF applications. Older Texans were substantially over-represented among referrals for Medicare.

Table 4.21 Top 25 Referrals for Ages 60+

Referral	*Category*	*Frequency*	*%*
Food Stamps/SNAP	Food	131512	22.4
Medicaid Applications	Income	82101	14.0
Electric Service Payment Assistance	Housing	54136	9.2
Medicare Savings Programs	Income	44357	7.6
Food Pantries	Food	19482	3.3
Rent Payment Assistance	Income	16435	2.8
Medicaid	Income	13950	2.4
VITA Program Sites	Income	10752	1.8
Area Agencies on Aging	Ind/Fam Supp.	8956	1.5
Gas Service Payment Assistance	Housing	7853	1.3
Medical Appointments Transportation	Transportation	7346	1.3
Housing Authorities	Housing	6969	1.2
Water Service Payment Assistance	Housing	5874	1.0
Adult Protective Intervention/Investigation	Ind/Fam Supp.	5668	1.0
Medicaid Buy In Programs	Income	5617	1.0
Discounted Utility Services	Housing	5543	0.9
General Dentistry	Healthcare	5268	0.9
Low Income/Subsidized Private Rental Housing	Housing	4479	0.8
Home Delivered Meals	Food	4432	0.8
Evacuation Transportation	Disaster	4079	0.7

The most frequent referrals for older Texans generally align with the overall population. However, table 4.21 shows that older adults received more referrals related to Medicare and Area Agencies on Aging, whereas these referral types do not appear in table 4.2 showing the overall top referrals. Older Texans have fewer referrals related to child and family issues like CHIP, TANF, and Child Care Expense Assistance that are included in the top 25 referrals overall (shown in table 4.2) but not in the top 25 for older Texans (shown in table 4.21)

While referrals for Medicaid, Medicaid Applications, and Medicaid Buy In Programs were in the top 25 referrals both overall and for older Texans, Medicare Savings Programs was fourth among top referrals for older Texans but not in the top 25 overall referrals. This is consistent with the fact that Medicaid is an assistance program serving low-income people of every age, whereas Medicare is an insurance program that primarily serves people over 65 regardless of income (though it also serves younger people with disabilities and dialysis patients).

4.3 Referrals by Geography

For some of the Big Count categories, reliable county-level statistics were available that indicate the need for these types of services across Texas. This section explores the

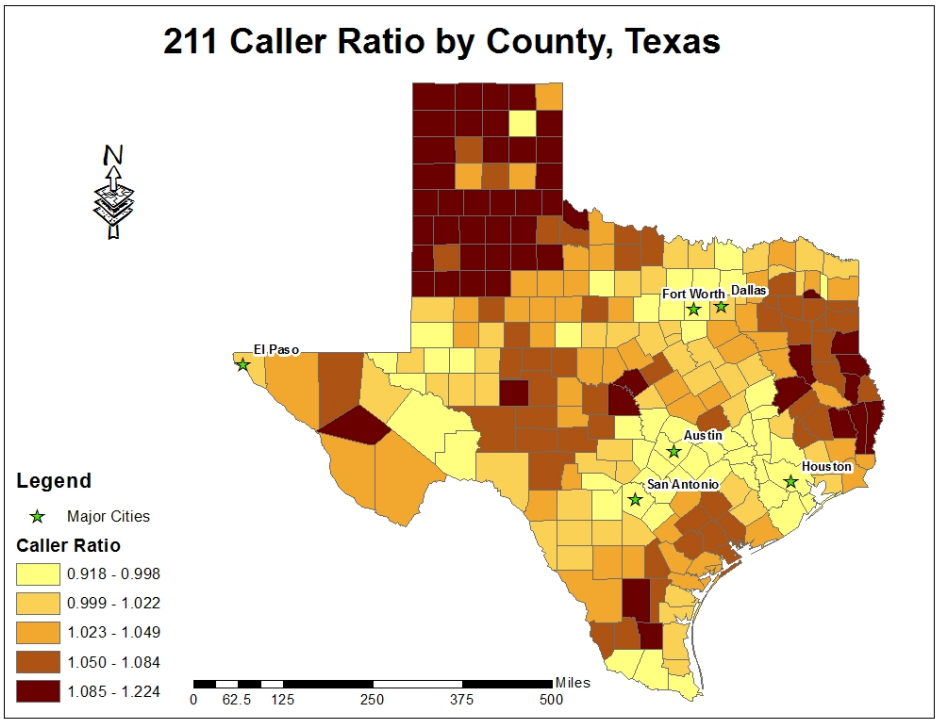
statewide distribution of needs as indicated by the available data[2] as compared to the statewide distribution of calls made to 2-1-1. This analysis includes five of the 16 Big Count categories – the four categories that rank highest in the percentage of referrals made to 2-1-1 callers (Food & Meals, Income Support & Assistance, Housing & Utilities, and Health Care).

The maps below compare the distribution of referrals from each county compared to the distribution of each county's population. Darker colors indicate counties where the number of referrals is high compared to the estimated need for related services, identifying counties that may be using 2-1-1 at a high rate for these types of needs. Lighter shading identifies counties that have a low 2-1-1 use rate relative to their estimated needs. Each figure below includes two tables that show the counties with the highest and lowest computed ratios for both overall state and for urban counties. The Appendix discusses the computation of the ratios and the indicators and data used to estimate the different types of needs but in the figures below, high ratios have darker shading and indicate areas where there is a higher than expected number of 2-1-1 calls or referrals. Lower ratios have lighter shading and indicate areas with relatively few calls or referrals based on either population or the estimated level of need for a particular service.

Figure 4.1 compares the statewide distribution of overall 2-1-1 calls made from each county to the statewide population. Note that this figure uses the overall number of calls rather than the number of referrals (as mentioned previously, some calls result in more than one type of referral) so that this figure reflects the overall level of use of the 2-1-1 phone system by county. Figure 4.2 shows the distribution of referrals rather than calls and shows some variation due to the fact that some calls result in multiple referrals.

[2] As detailed in the appendix, the data came from the Census Bureau's American Community Survey and the Housing and Urban Development Comprehensive Housing Affordability Strategy.

Figure 4.1 Total Callers: (%total callers / %total population)

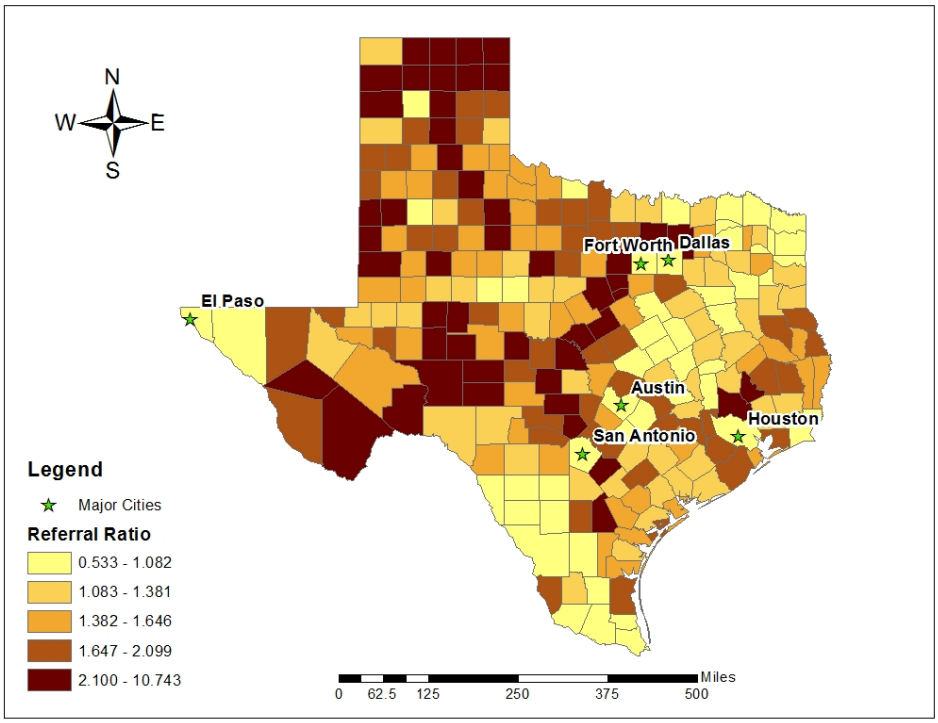


The darker areas in the panhandle and areas of east Texas show that these geographic areas are generally over-represented among 2-1-1 callers. Lighter areas show that many high-population counties near major cities are under-represented among 2-1-1 callers.

ALL COUNTIES			
HIGHEST 5 County	*HIGHEST 5 Ratio*	*LOWEST 5 County*	*LOWEST 5 Ratio*
King	1.224	Taylor	0.918
Collingsworth	1.151	Jefferson	0.918
Cochran	1.149	Bexar	0.931
Motley	1.147	Hopkins	0.953
Oldham	1.147	Potter	0.956

URBAN COUNTIES			
HIGHEST 5 County	*HIGHEST 5 Ratio*	*LOWEST 5 County*	*LOWEST 5 Ratio*
Lubbock	1.108	Williamson	0.931
Smith	1.068	Hays	0.956
Victoria	1.066	Tarrant	0.958
Potter	1.064	Johnson	0.959
Wichita	1.063	Bastrop	0.960

Figure 4.2 Total Referrals: (%total referrals / %total population)



The darker areas in the panhandle and western parts of the state show geographic areas that receive a high number of 2-1-1 referrals relative to their populations. Lighter areas show that as will overall call volume, many high-population counties containing major cities are under-represented among 2-1-1 referrals.

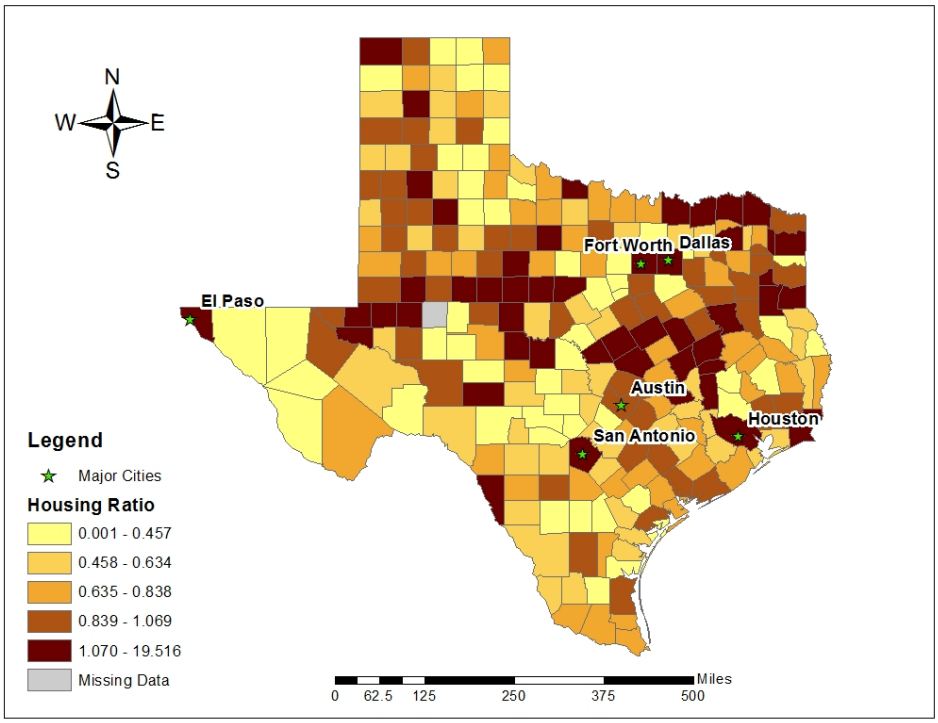
ALL COUNTIES			
HIGHEST 5 County	*HIGHEST 5 Ratio*	*LOWEST 5 County*	*LOWEST 5 Ratio*
Hartley	10.743	Loving	0.533
Roberts	8.066	Roberts	0.608
Borden	6.525	Williamson	0.644
Carson	5.492	Burleson	0.665
Glasscock	5.233	Hays	0.670

URBAN COUNTIES			
HIGHEST 5 County	*HIGHEST 5 Ratio*	*LOWEST 5 County*	*LOWEST 5 Ratio*
Rockwall	3.604	Taylor	0.533
Denton	2.695	Jefferson	0.608
Collin	2.562	Bexar	0.644
Parker	2.458	Potter	0.670
Kendall	2.456	Wichita	0.690

Figures 4.3, 4.4, 4.5 and 4.6 show the distribution of referrals relative to the estimated need. For each map, the Texas State CSI research team found federal government data either from the Department of Housing and Urban Development ("HUD") or from the American Community Survey ("ACS") conducted by the U.S. Census Bureau. To estimate broad categories of need, researchers chose data that measured a social problem (unaffordable housing, SNAP prevalence, poverty, and lack of health insurance) that was directly related to the top referrals in each of the selected Big Count category. Further information about these data sources and the process used to compute the ratios is included in the Appendix of this report.

Figures 4.1 and 4.2 show that the counties containing Texas' largest cities have lower than expected numbers of calls and referrals relative to their population. However, figures 4.3, 4.4, 4.5 and 4.6 show that these counties tend to have high numbers of referrals relative to their estimated need for housing, food, income support, and health care. While at first glance this pattern may seem contradictory, the overall large populations of these counties means that they contribute significantly to the overall number of statewide calls and referrals (even though they are under-represented). Two factors likely explain this. First, the threshold for perceived need may be lower in urban areas. That is, it may require less significant levels of problems with housing, food, income, or health care to prompt city residents to seek services through the 2-1-1 TIRN. Second, city residents may call less often about other Big Count categories of services to make their overall level of 2-1-1 use lower than expected but their use of the 2-1-1 TIRN for housing, food, income, and health care are higher than expected.

Figure 4.3 Housing Needs: (%total housing referrals / %total cost burden > 50%)

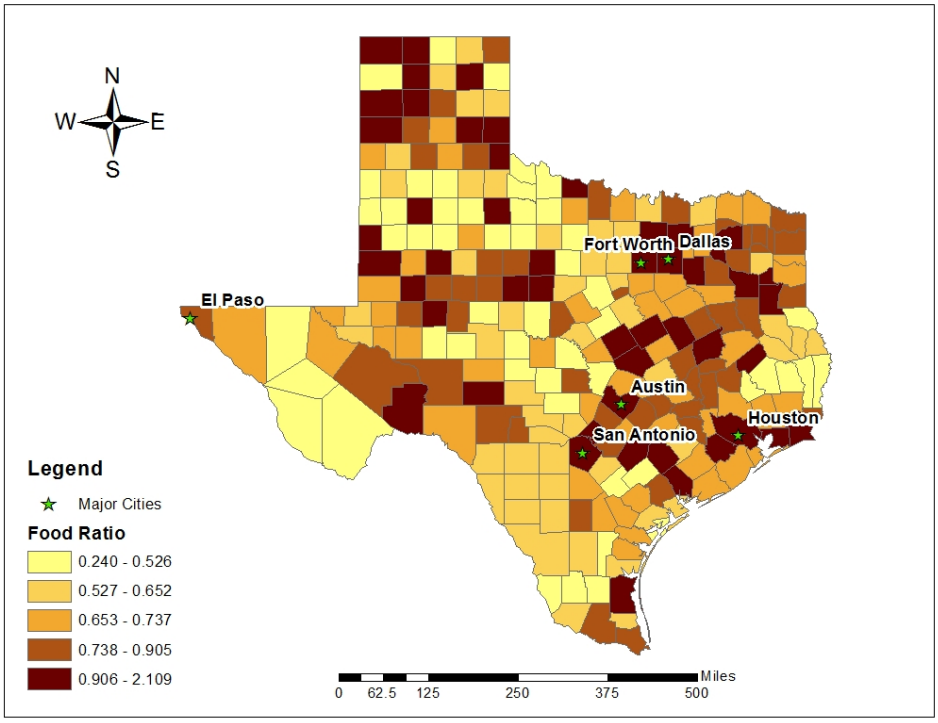


Darker areas show higher levels of referrals for Housing and Shelter services based on the estimated level of need indicated by the number of housing units where housing costs exceed 50% of the household's income (a situation that is related to the need for the most common types of housing referrals). While urban centers generally are under-represented among overall 2-1-1 referrals, these areas (as well as areas in central and northeast Texas) tend to receive an unexpectedly high number of Housing and Shelter referrals.

ALL COUNTIES			
HIGHEST 5 County	*HIGHEST 5 Ratio*	*LOWEST 5 County*	*LOWEST 5 Ratio*
Martin	19.516	McMullen	0.001
Maverick	17.668	Marion	0.030
McLennan	8.976	Roberts	0.065
Lamar	8.675	Hemphill	0.084
El Paso	5.808	Mason	0.087

URBAN COUNTIES			
HIGHEST 5 County	*HIGHEST 5 Ratio*	*LOWEST 5 County*	*LOWEST 5 Ratio*
Martin	19.516	Ellis	0.119
McLennan	8.976	Kendall	0.213
El Paso	5.808	Aransas	0.256
Lampasas	3.123	Rockwall	0.330
Taylor	2.885	Parker	0.387

Figure 4.4 Food and Meal Needs: (%total food referrals / %total food stamp/SNAP recipients)

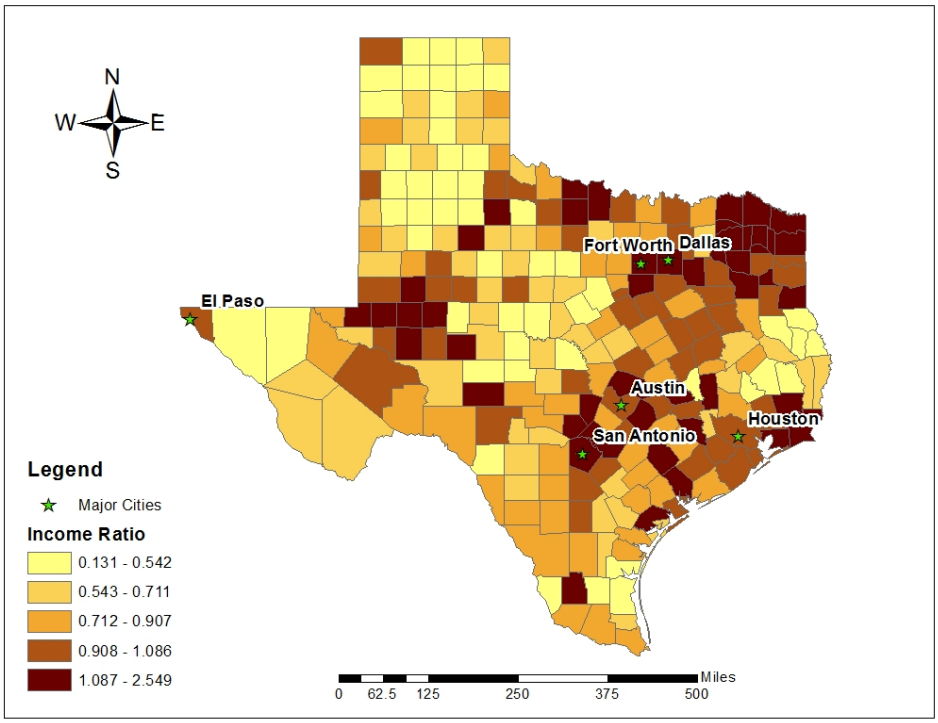


Darker areas show higher levels of referrals for Food and Meal services based on the estimated level of need indicated by the number of SNAP recipients (which shows the ambient need for food-related services). Major urban centers and some areas in the panhandle receive a disproportionately high number of Food and Meals referrals based on their overall level of food need estimated by their number of SNAP recipients.

ALL COUNTIES			
HIGHEST 5 County	*HIGHEST 5 Ratio*	*LOWEST 5 County*	*LOWEST 5 Ratio*
Oldham	2.109	Hartley	0.240
Taylor	1.616	Jeff Davis	0.254
Dallas	1.556	Zapata	0.262
Bell	1.446	Culberson	0.265
Limestone	1.427	Haskell	0.267

URBAN COUNTIES			
HIGHEST 5 County	*HIGHEST 5 Ratio*	*LOWEST 5 County*	*LOWEST 5 Ratio*
Taylor	1.616	Aransas	0.449
Dallas	1.556	Wise	0.568
Bell	1.446	Parker	0.585
Bexar	1.391	Tom Green	0.598
Collin	1.354	Medina	0.613

Figure 4.5 Income Needs (%total income referrals / %total people below poverty)

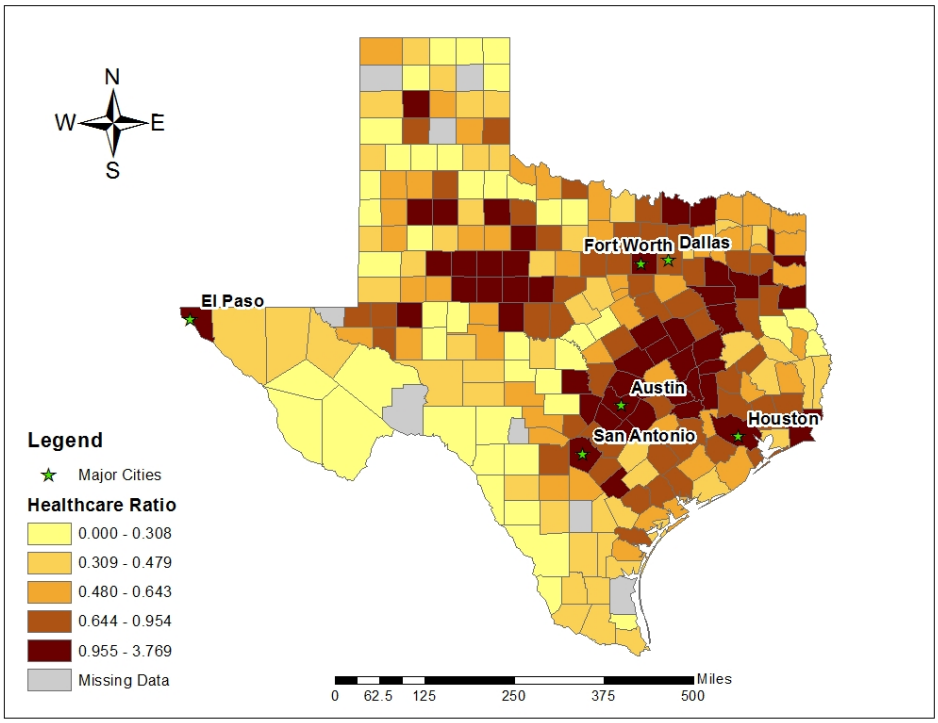


Darker areas show higher levels of referrals for Income Support and Assistance services based on the percentage of people living below the federal poverty level (which is a good indicator of the underlying need for services related to income support). Dallas, Fort Worth, San Antonio, and areas in northeast Texas receive a disproportionately high number of Income Support and Assistance referrals relative to their level of poverty. El Paso, Austin and Houston are moderately high.

ALL COUNTIES			
HIGHEST 5 County	*HIGHEST 5 Ratio*	*LOWEST 5 County*	*LOWEST 5 Ratio*
Wichita	2.549	Armstrong	0.131
Kent	2.265	Hartley	0.252
Clay	2.238	Carson	0.325
Lavaca	1.886	Schleicher	0.327
Hopkins	1.861	Sabine	0.331

URBAN COUNTIES			
HIGHEST 5 County	*HIGHEST 5 Ratio*	*LOWEST 5 County*	*LOWEST 5 Ratio*
Wichita	2.549	Randall	0.553
Williamson	1.524	Potter	0.553
Bexar	1.430	Waller	0.598
Jefferson	1.415	Aransas	0.605
Gregg	1.398	Hunt	0.656

Figure 4.6 Health Care Needs (%total health care referrals / %total uninsured)



Darker areas show higher levels of referrals for Health Care services based on the percentage of people with no health insurance (indicating the level of need for the most common types of Health Care referrals). Urban centers, counties in central Texas, and counties in the southeast panhandle region are given a disproportionately high number of Income Support and Assistance referrals relative to the estimated level of need. Counties along the Mexico border receive fewer referrals than expected.

ALL COUNTIES			
HIGHEST 5 County	*HIGHEST 5 Ratio*	*LOWEST 5 County*	*LOWEST 5 Ratio*
Taylor	3.769	Lipscomb	0.069
Travis	2.540	Menard	0.081
Grayson	1.894	Briscoe	0.087
Bastrop	1.863	Reagan	0.105
Bexar	1.717	Jeff Davis	0.107

URBAN COUNTIES			
HIGHEST 5 County	*HIGHEST 5 Ratio*	*LOWEST 5 County*	*LOWEST 5 Ratio*
Taylor	3.769	Webb	0.279
Travis	2.540	Cameron	0.341
Grayson	1.894	Rockwall	0.346
Bastrop	1.863	Hidalgo	0.402
Bexar	1.717	Aransas	0.450

4.4 Disability-Related Referrals

While disabilities are often a factor in determining eligibility for services, 2-1-1 call data do not capture whether each specific referral was for someone with a disability. In one testing scenario, the 2-1-1 call specialist asked whether the caller had a disability, but this was likely asked just to help determine eligibility for the available referrals n that scenario. Disability status was not a variable available for analysis in the phone data.

The number of referrals to Texans with disabilities is important information in understanding the need for Service-Enriched Housing, the Texas State CSI team did identify all of the referrals made that were explicitly related to disability (any referral with the term “disability”, “disable”, or “disabilities” in it). While this was a fairly large number of referrals (21,451), this was only about 0.5% of the total referrals. While it is certain that many referrals for other services were provided to callers with disabilities, there is no valid way to estimate how many. Table 4.22 below shows the 10 most-referred services related to disabilities. Overall there were 55 different types of disability-specific referrals, but the top 10 accounted for 92.8% of the total.

Table 4.22 Top 10 Disability-Related Referrals

Specific Referral	# of Referrals
Social Security Disability Insurance	7085
In Home Attendants for People With Physical Disabilities	5780
Disability Related Transportation	4447
Supported Living Services for Adults With Disabilities	1160
Disability Parking Permits	302
Elderly/Disabled Home Rental Listings	259
Early Intervention for Children With Disabilities/Delays	253
Semi-Independent Living Residences for Adults With Disabilities	235
Disability Rights Groups	202
Group Residences for Adults With Disabilities	178

The disability-related referrals fell into 13 of the 16 Big Count Categories. While the available data from the web do not include the referral, the web data do show that 19,906 people visited the clearinghouse link on the web site dedicated to disability-related services. This was approximately 2.8% of all web visits, though it is likely that some people with disabilities may not have used this clearinghouse during their web search.

Table 4.23 Disability Related Referrals by Big Count Category

Big Count Category	# Referrals	Percent
Income Support & Assistance	7301	34.1
Individual, Family & Community Support	6072	28.3
Transportation	4445	20.7
Housing & Utilities	1996	9.3
Health Care	786	3.7
Legal, Consumer & Public Safety	436	2.0
Employment	208	1.0
Mental Health & Addictions	159	<1
Volunteers & Donations	19	<1
Other Governmental & Economic Services	8	<1
Arts & Recreation	4	<1
Education	4	<1
Information Services	1	<1

5.0 COMPARISON WITH OTHER STATES

2-1-1 provides national service to 80% of the United States population and providers collectively answered 15.6 million calls in 2013 alone. While the United Way and the Alliance for Information and Referral Services (AIRS) provide national leadership for the 2-1-1 program, each state implements the 2-1-1 service specific to their state. Comparison states were chosen based on a variety of factors including similar population, region, and demographics.

5.1 California

The California 2-1-1 program uses a decentralized model where each of the 20 call centers determines its own service delivery structures and functions independently. These call centers predominantly service single counties and collectively offer coverage to 92% of Californians. General oversight of the California 2-1-1 program is provided by the California Public Utilities Commission (CPUC) as the state program moves towards a hybrid model where administration is carried out at both local and state levels. The California 2-1-1 program does not have a statewide 2-1-1 web service available for individuals to use for referrals, although regional call centers operate their own websites.

In 2012, the call centers collectively handled 1,393,857 calls. There is no aggregate data on web searches. Of the calls handled, the top five service requests areas were: Housing & Utilities (38.5%), Food & Meals (15.8%), Legal, Consumer, and Public Safety (11.8%), Health Care (10.8%), and Individual, Family, and Community Support (10.7%).

5.2 Arizona

The Arizona 2-1-1 program uses a hybrid model where call centers provide services locally, but additional oversight is provided statewide by Community Information and Referral Services (CIR). In Arizona, CIR manages 2-1-1 and a variety of additional health and human services programs such as the Arizona Foreclosure Assistance Hotline and the Community Voice Mail for homeless persons. The Arizona 2-1-1 program has a heavily utilized referral website.

Between July 2012 and June 2013, the Arizona 2-1-1 call centers handled only 188,781 calls, but also had 1,083,813 web searches. In total, 1,305,551 referrals were made in this time period. The top five service request areas from calls alone were: Housing & Utilities (66.8%), Transportation (7.5%), Health Care (4.3%), Food & Meals (4.1%), and Individual, Family, and Community Support (3.1%). Of all referrals made (including web searches), the top five service requests fell into the following categories: Housing

(31%), Health Care (10%), Utilities (8%), Food (7%), and Income Support & Employment (6%).

5.3 Florida

The Florida 2-1-1 Association uses a decentralized model, where 14 member call centers provide 2-1-1 coverage to approximately 76% of the Florida population. The Florida 2-1-1 program does not have a statewide 2-1-1 web service available for individuals to use for referrals, although regional call centers operate their own websites.

In 2012, the call centers collectively handled 1,018,292 calls and made a total of 1,324,110 referrals. There is no aggregate data on web searches. Of the calls handled, the top five service request areas were: Housing and Utilities (35.8%), Mental Health & Addictions (11.5%), Information Services (9.5%), Food & Meals (8.5%), and Individual, Family, and Community Support (7.4%).

5.4 Similarities

All state 2-1-1 programs utilize local call centers to various degrees, but of the four states reviewed, only Texas and Arizona have implemented hybrid 2-1-1 models for service delivery. The Ray Marshall Center Report (2004) concluded that hybrid models have the highest benefit/cost ratio for society over the next ten years. Housing & Utilities, Food & Meals, and Individual, Family, and Community Support referrals were among the top five service request areas for all states, including Texas.

5.5 Differences

The Texas 2-1-1 center handled significantly more calls than all other states combined, with 2,579,349 calls handled in 2013 alone. These calls generated 3,285,271 different referrals, although the calls predominately fell into three areas: Food & Meals (37.2%), Income Support & Assistance (26.7%), and Housing & Utilities (20.6%). All of the Texas call centers use the same statewide database to make referrals, whereas, both California and Florida have individual databases that are locally maintained.

Both Arizona and Texas use hybrid models with a statewide website, but the Arizona website is much more utilized than its counterpart in Texas. Of the total service requests in Arizona, only 20.2% came from call centers in 2012. Conversely, in Texas, about 79% of referrals were generated from call centers in a 15-month period (Jan 2013 through March 2014).

Compared to these other states, Texas is somewhat different in the most common types of referrals offered through 2-1-1. In Texas, Housing & Utilities accounts for about 20.6% of all referrals but in the other three states, this category accounts for 36% to 67% of all referrals. The Food & Meals category accounts for 37.2% of referrals in Texas, but between 4% and 16% in these comparison states. The Income Support & Assistance category was the second most common type of referral in Texas accounting for 26.7% of referrals but this category was not in the top five for any of the comparison states.

6.0 MARKETING

The high volume of calls shows that many Texans are aware of the 2-1-1 phone system. While word of mouth and other informal marketing channels are likely important, formal marketing efforts consist of both referrals from state agencies and active media advertising. For example, TDHCA refers people who inquire about rental assistance and emergency assistance to 2-1-1 in addition to providing them with information about TDHCA programs. As another example, Texas State CSI researchers heard a radio advertisement for the Children's Health Insurance Program ("CHIP") that provided 2-1-1 as a way to get more information.

Currently, active efforts to market the 2-1-1 program follow the overall hybrid model. The state provides approved marketing materials (art for billboards and other visual advertising, wording for radio announcements, etc.) while decisions about the levels and types of marketing employed are made by the regional AIC's. This approach allows each region to promote awareness to the extent and through the channels most appropriate to their local populations. However, this approach allows for considerable variation in the amount and type of marketing conducted across the state. While the variation in call levels to 2-1-1 by region is not extreme, there is some noticeable variation that suggests some areas where additional (or perhaps more effective) marketing might be beneficial. The counties that contain the largest Texas cities tend to have lower than average numbers of referrals overall and increased marketing in these areas may reach people who need 2-1-1 service but who are not currently using it.

One important marketing consideration relates to what people know about 2-1-1 rather than just general awareness. While the major urban counties tend to have lower levels of referrals overall, they have a higher than expected number referrals for services relating to Housing and Shelter, Food and Meals, Income Support and Assistance, and Health Care relative to their estimated need for these services. This suggests a potential marketing need to better publicize the breadth of resources for which 2-1-1 can provide information and referrals. The analysis in Section 4 shows that the most effective marketing (in terms of generating more inquiries and referrals) would be to promote awareness of the less frequently referred Big Count categories (such as Arts and Recreation, Employment, and Volunteers and Donations) in major Texas cities.

One other clear marketing need is to promote awareness of the web site. As the web site is managed centrally by the state, it would probably be most effective to have related marketing efforts done by the state. As contractors, AIC's generate revenue by providing 2-1-1 phone services and therefore have no direct motivation to actively market the 2-1-1 web site. As mentioned previously, higher awareness and increased use of the web site has the potential to increase overall use of the 2-1-1 system and encourage more people to use the less costly web option. Increased use of the web

site would not necessarily diminish the role of AIC's. Increased use of the web may attract some Texans who are unlikely to use the phone system and increased marketing overall may increase both call volume and web use. Even if call volume is reduced, AIC's would still play an important role in updating the database of 2-1-1 resources at the local level.

7.0 DATA LIMITATIONS AND RECOMMENDATIONS

The datasets available for this research were helpful and provided a good understanding of some important needs and strengths of the Texas 2-1-1 program. However, several data limitations prevented the Texas State CSI research team from fully addressing some of the topics of interest. This section identifies these limitations and provides suggestions that would substantially enhance the usefulness of data from 2-1-1 records in future reports. Also, these data enhancements might also help 2-1-1 data be useful for other reports and research activities such as local needs assessments.

7.1 Limitations

One major limitation was data about 2-1-1 web users. The only source of data available for analysis in this study about web site use was a summary document showing the total number of web visits and a frequency distribution of what searches were used. While this dataset included the number of times each search was conducted, it did not include an explanation of each search (each search was identified only by some of the codes from the web programming). Thus, the only useful data available about 2-1-1 web site use was the overall number of web site visits. Collecting more data about web site users and how they use the web site would provide valuable insight that could be used to improve the web site design, more effectively market the web site, and better understand the nature of all 2-1-1 inquires (rather than relying exclusively on phone data). Specifically, a web data set similar to the phone data would be very helpful where each record shows a web site visit and collects the search terms or path used, the ZIP code used for searching, and data about the visitor (sex, age, disability status, etc.).

Another limitation was the lack of data about specific resources referred. The phone data contained each caller's county and the type of referrals provided by the 2-1-1 call specialist. However, the dataset did not include which specific resources were referred. Non-systematic testing and discussions with the 2-1-1 program manager confirmed that while resources included as referrals are usually appropriate to a person's need and geographic location, the list of resources provided as referrals may not always be comprehensive. Recording the specific resources provided to callers along with the nature of the call or taxonomy code of the referral would be extremely helpful. This combination of data could be shared with AIC outreach coordinators and representatives from state service agencies to review to ensure that the 2-1-1 database is as comprehensive as possible.

Data from the 2-1-1 phone system did not include records of calls where referrals were not provided. This is a limitation because understanding the level and nature of unmet

caller needs would help identify ways to improve the 2-1-1 system or database. The dataset available for preparation of this report only included calls that resulted in a referral. It is probable that some calls to 2-1-1 do not result in referrals. In one test scenario, the only referral offered by the call specialist was in another county and a web search determined that the agency referred did not provide services in the test scenario county (the call specialist realized and explained that this was not an ideal referral but that it was all she was able to find). This call would likely appear in the dataset with the appropriate code for referral type, but the dataset would have no indication that this was not a successful outcome. Capturing data about 2-1-1 calls that do not result in a referral or that result in a "weak" referral would identify unmet needs and help outreach coordinators target new types of services and locations to expand the database.

7.2 Recommendations to Enhance Data Collection

Based on these limitations, we recommend that the 2-1-1 TIRN attempt to collect and track the following types of data in addition to the extensive data already collected about inquires to the 2-1-1 phone system.

- Collect data from web site visits that record:
  - The nature of the Disability Services web search function
  - The nature of the search (taxonomy categories and/or keywords used)
  - The taxonomy code of the referrals provided (or the external web site that the search linked to)
  - The ZIP code of the search
  - Data about the web user (age, sex, veteran status, disability status)

- Collect data about the specific resources that are provided to callers in addition to the nature of the referral (or extract and prepare these data for analysis if they are already collected).

- Collect data about phone inquiries that do not result in a referral or that result in referrals that are not optimal (do not closely match the caller's need and/or are not close to the caller's location). If these data are already collected, include them in the files generated for analysis.

- Collect disability status of 2-1-1 web users and callers. While this is important information for understanding a key population of 2-1-1 users, collecting this information must be done in a careful and considerate way that does not stigmatize or offend 2-1-1 users and does not imply discrimination.

- Make sure that data collection captures the age of the person needing services because sometimes callers or web users may be seeking a referral for someone other than themselves.

With the large number of calls made to Texas 2-1-1, even collecting additional information from a random sample of callers would provide data that could produce highly accurate statewide estimates. Other states can and do collect more information about 2-1-1 callers and web site users.

8.0 RECOMMENDATIONS FOR FUTURE RESEARCH

Section 7 describes some of the limitations of the available data for this study. Improving the collection of data from the 2-1-1 phone system and web site as described in Section 7 would allow further analysis that would improve future reports. There are also some initiatives involving new types of data collection that the Texas State CSI believes would provide information that 2-1-1 stakeholders would find interesting and valuable. This section provides several recommendations for future research in three categories:

1. Research that would answer or more fully answer questions originally requested for this report.
2. Research efforts that the Texas State CSI strongly recommends based on our understanding of HHSCC needs.
3. Other research efforts that HHSCC may want to consider

8.1 Enhancing This Report

Table 8.1 summarizes the research needs originally identified by HHSCC that were unmet or only partially met as a result of the data limitations described in Section 7.

Table 8.1 Unmet and Partially Met Research Needs

Research Need	Partially Met or Unmet	Data Required
Needs of Texans with disabilities	Partially Met	Disability Status of 2-1-1 callers and web users
Comprehensiveness and appropriateness of database referrals	Partially Met	Data showing what resources were referred for calls or web searches
Needs of web users and comparison of web vs. phone users	Unmet	Data with characteristics of web users and web data about search paths and referral types
Use of Disability Clearinghouse on web site	Unmet	Data with characteristics of web users and web data about search paths and referral types for users of the clearinghouse search page
Understanding of incomplete searches or inadequate referrals that identify unmet needs	Unmet	Web and phone data that show visits or calls that resulted in no referral or an inadequate referral

Because some originally anticipated goals of this report remain unmet or partially met, we recommend a supplemental report be prepared if and when the needed data become available.

8.2 Strongly Recommended Additional Research

The results of this report identify some needs of the 2-1-1 program where more data would be directly helpful in making improvements that would help the Texas 2-1-1 program be even more effective.

One strong recommendation is **conducting usability testing of the 2-1-1 web site** if this has not been done. The Texas State CSI team thoroughly reviewed the web site and tested dozens of searches and navigation paths and found the re-designed web site user-friendly, intuitive, and powerful. However, the web site is designed to be used by thousands of people with many different types of needs and the perspective of Texas State CSI researchers is not representative of the population of potential users. Usability testing would involve recruiting actual 2-1-1 users with a variety of backgrounds (education levels, disability statuses, ages, primary languages, etc.) and having them use the site to learn more about how they expect the site to work and to identify challenges and obstacles they experience when using it.

Another strong recommendation is to **conduct a large scale and dedicated analysis of the specific resources provided as referrals**. One of the goals of this project was to assess the appropriateness of referrals (i.e. whether each resource referred meets the expressed need and whether they are currently providing services). As mentioned above, this goal was only partially met by using anecdotal test scenarios for the 2-1-1 phone system and web site. A few of these scenarios showed that some of the expected statewide services did not appear. Discussions with the 2-1-1 program manager confirmed that this was probably because database updates are left to the outreach coordinators at each of the 25 regional AIC's. The available phone data did not include the resources provided to callers, but if data about specific resources in the database and their associated taxonomy code(s) becomes available, it would allow a more comprehensive analysis that was beyond the scope of this report. This analysis could lead to better and more systematic ways of updating and maintaining the 2-1-1 database.

We also strongly recommend **a telephone survey of a statistically valid sample of 2-1-1 callers to assess outcomes of 2-1-1 calls**. From January 2013 through March 2014, 2-1-1 received over 3 million calls. However, there are no systematic data that assess the outcomes of these calls. Calls generally end with the call specialist providing one to three referrals that they think will meet the caller's needs. While regional AIC's do follow up with callers who are in crisis and do make follow-up calls as a form of quality control, there is no consistent channel for feedback based on a representative sample of callers. A telephone survey of a random sample of 2-1-1

could provide an understanding of callers' experiences. The survey could ask callers questions such as:

- How long did you wait before you were helped by a specialist?
- Did you follow up with any of the referrals provided?
- Did you get the services you needed from any of the referrals?
- What other ways did you try to get information before calling 2-1-1?
- How many times have you called 2-1-1 in the past 30 days?
- How likely would you be to call 2-1-1 the next time you need information or a referral?
- Have you ever used the 2-1-1 Texas web site?

Ideally, the survey could use the existing data about the call already captured in the phone data and an analysis of survey responses would identify trends in repeat use of 2-1-1 and provide an understanding of how helpful referrals are for callers.

8.3 Other Research for Consideration

If the 2-1-1 TIRN would like to know more about how Texans learn about 2-1-1, one recommendation would be **collecting data about the effectiveness of 2-1-1 marketing**. One passive way to do this would be to identify the timeframes, content, and locations of marketing efforts and then analyze call data to look for increases in call volume in the areas exposed to the marketing. If the 2-1-1 marketing emphasized specific types of 2-1-1 services, the analysis could compare changes in call volume related to these services with call volume related to other services or call volumes in other areas where marketing was constant. One other approach would be to actively ask 2-1-1 callers how they heard about 2-1-1. Even if this question was asked of a random subset of callers, this would provide substantial data to help the 2-1-1 program understand which marketing channels are most effective in different areas.

If the 2-1-1 TIRN is interested in the differential needs and uses of 2-1-1 based on geography, one other recommended avenue for future research would be **extending the geographic needs analysis presented in Section 4.3 of this report**. The maps and analysis included here show how each county's level of calls and referrals compare with its general level of need indicated by external data sources. If 2-1-1 stakeholders find this type of analysis useful, further efforts could do additional comparisons using additional external data and additional categories of referrals.

This report found that the types of referrals most common in Texas are different from other large states. **Further exploration of other states and how they compare with Texas** might yield interesting and helpful findings.

APPENDIX – METHODOLOGY

A.1.0 Data Sources

The data analyzed for this project came from a variety of sources. The bulk of this report emerged from the analysis of the 2-1-1 call logs that call center specialists had entered during the January 2013 to March 2014 time period. The call specialists collected demographic and geographic information (sex, age, and county) in addition to assigning a classification to the type of service each caller was requesting. Data showing counts of page views from the Texas 2-1-1 web site for 2013 were also provided, but were only used to provide an overall count of web visits due to the primary reliance of Texas 2-1-1 users on the phone service (78.6% of 2-1-1 inquiries were received via phone) and because the data from the web site contained no details about users, searches, or referrals.

Two other activities generated supplemental data to support the call data analysis. The CSI researchers conducted Mystery Shopping Scenarios of the 2-1-1 phone and web services to evaluate the referrals received for their relevance related to the type service requested. Additionally both the Texas State CSI and TDHCA teams met with Beth Wick, program manager of 2-1-1 Texas, for a presentation and meeting that outlined the development and progress of the 2-1-1 service in Texas.

A.1.1 Call Data

The call files came in Excel format and were presorted into 16 different categories based how the referrals were classified using the national 2-1-1 standard known as Big Counts. All files were merged using the Statistical Package for Social Sciences (SPSS) and the final file was subsequently cleaned, eliminating non-Texas calls and duplicate entries. In addition to the few completely duplicated entries, there were a handful of specific referral types that were included in more than one Big Count category and were thus duplicated in the merged dataset (e.g. Food Stamps/SNAP classified as both “Food & Meals” and “Income Support and Assistance” referrals). The following seven referrals accounted for the vast majority of the double-category entries and were manually assigned a single classification based on what Texas State CSI researchers determined to be the most appropriate category.

Table A.1 Assignment of Double-classified Referrals

Referral	Assigned Category	Deleted Category	Number of Referrals
Food Stamps/SNAP	Food & Meals	Income Support & Assistance	1,095,922
WIC	Food & Meals	Income Support & Assistance	12,082
Landlord Dispute Resolution	Housing & Utilities	Legal, Consumer, Public Safety	2,000
Tenant Rights Information/Counseling	Housing & Utilities	Legal, Consumer, Public Safety	1,300
Eviction Prevention Assistance	Housing & Utilities	Legal, Consumer, Public Safety	453
Alcohol Dependency Support Groups	Mental Health & Addictions	Individual, Family &, Community Support	715
City Departments/Offices	Other Government & Econ Services	Information Services	346

The 236 remaining double-category referrals were assigned whichever category appeared first in the dataset and the duplicate was deleted. These remaining referrals all appeared in the database fewer than 300 times and all of them combined comprised less than 1% of all duplicates, so this decision had a negligible impact on the overall dataset and resulting analyses. Two final datasets were produced: one with unique referrals and the other with unique callers as the unit of analysis.

A.1.2 Mystery Shopping Data

The TDHCA team developed 31 Mystery Shopping Scenarios based on the type of calls they received through the TDHCA "Help for Texans" service and what they knew to be common types of inquiries. The goal of the scenarios was to evaluate the specific referrals callers or web users were given based on the service needed in each scenario to make sure the referred resources were appropriate to the need.

The CSI researchers split the scenarios up into a variety of subcategories to broadly test the 2-1-1 system. Of the 31 scenarios, 11 were tested using the phone system and 20 were done using the new 2-1-1 web site. Of the 20 done on the web site, ten used the new web taxonomy to generate referrals and ten used the keyword search function. Scenarios were also split up into rural and urban categories, where 21 scenarios (both phone and web) used an urban county as a location for the service requested and the remaining 10 used rural counties. A "rural area" is defined in Texas Government Code §2306.004(28a) as "an area that is located:

> (A) outside the boundaries of a primary metropolitan statistical area or a metropolitan statistical area; or

(B) within the boundaries of a primary metropolitan statistical area or a metropolitan statistical area, if the statistical area has a population of 25,000 or less and does not share a boundary with an urban area."

For the purposes of analysis, urban and rural designations will be determined by counties' characteristics. The definition of rural in §2306.004(28a) requires the investigation into the location of Metropolitan Statistical Areas (MSAs). The U.S. Office of Management and Budget (OMB) determines which counties are within each MSA. During the OMB's 2013 update of MSA, it became apparent that some MSA counties have no urban places per §2306.004(36) (i.e. the MSA county had no places over 25,000, nor any places touching a boundary of a place with 25,000). Therefore, the following analysis will refer to "MSA counties with urban places" and "Non-MSA counties and counties with only rural places". The data for "MSA counties with urban places" will be counted as "urban" and the data for "Non-MSA counties and counties with only rural places" will be counted as "rural". The following table contains each scenario and notes about the referrals received:

Table A.2 Summary of Mystery Shopping Scenarios

CITY	SCENARIO	MODE (Wait Time)	NOTES
Houston	Parent of a child with autism looking for a place for him to live and receive services	Phone (< 1 min)	Call specialist only found 1 agency that didn't serve Harris County
Fort Worth	Child of a mother who needs to go into a nursing home	Phone (< 1 min)	Call specialist quickly provided 3 referrals in the area
Corpus Christi	Looking for help paying my rent this month	Phone (< 1 min)	Call specialist quickly provided 2 referrals in the area
Andrews	Need help finding a cheap apartment to live in	Phone (< 1 min)	Call specialist found nearest resource was in Odessa
Dickens	Have a housing choice voucher and need to find a place to live	Phone (2 min)	Call specialist had no direct referrals but said to contact the Public Housing Authority.
Denton	Need to find a shelter for my homeless brother	Phone (< 1 min)	Call specialist provided 2 referrals – one in Denton and one in nearby McKinney
Dallas	I can't afford to fix the air leaks in my home that are causing my utility bills to go up	Phone (< 1 min)	Two referrals given, all relevant. Asked for age, veteran's status, county & if I was caring for someone age 60 or older
Jayton	Need to find a place for my aging father to go during the day while I work	Phone (< 1 min)	One referral given - directed to local DADS office for additional referrals. Asked age, veteran status & if I was caring for someone age 60 or older.
Three Rivers	Need someone to come to my home to care for my spouse so I can have a break from caregiving	Phone (10 min)	Two referrals given, one for the local DADS office and one for a relevant organization. Asked what HER age was & if she had insurance
Houston	I am being evicted and need to find emergency help paying my rent	Phone (4 min)	Three referrals given, all seem relevant. Asked for my age & county
San Antonio	Need to find an attendant for my son	Phone (5 min)	One referral given, relevant. Asked age & veteran's status
Amarillo	Need to find out how to get home delivered meals for my mother	Web-Keyword	3 of 5 searches provided relevant referrals (others were for utility assistance and counseling)
Lubbock	Need to find my local DADS and DSHS office	Web-Keyword	No direct link to DADS or DSHS office, but first two referrals are to county numbers resources
Midland	Need help finding a place to live to be safe from my abusive husband	Web-Keyword	None of the results were relevant to the service requested, but all were located in Midland
Odessa	Need to find a place to live that will accept someone with a previous criminal history	Web-Keyword	None of the results were relevant at all (top 5 were for low income earners)

Table A.2 Summary of Mystery Shopping Scenarios - CONTINUED

CITY	SCENARIO	MODE (Wait Time)	NOTES
Temple	My brother is threatening suicide and I need to find a crisis hotline	Web-Keyword	4 of 5 results were relevant (other was for suicide loss support groups); none of the referrals were for organizations in Temple (all 30+ miles away)
Longview	I need to make a complaint about my landlord	Web-Keyword	1 of 5 results potentially relevant (provides legal aid to a variety of people, including those experiencing housing discrimination)
Wichita Falls	I have been discriminated against and need to find where I can make a complaint about an apartment complex	Web-Keyword	None of the results were relevant, even with simple search terms like "discrimination" using the Wichita Falls area ZIP code
Colorado City	Need to find a daycare that will accept my child with a disability	Web-Keyword	3 of 5 results directed towards DADS resources
Farwell	Need to find services for my brother with AIDS	Web-Keyword	None of the results were relevant (or even close). Search using simply "AIDS" as search term yielded referrals for "aides"; "HIV" searches referred user to DADS office
Pecos	I want to apply for the Texas Bootstrap program to repair my home	Web-Keyword	Results do not refer to the Bootstrap program at all
Dallas	Person with a disability looking for a place to live	Web-Taxonomy	Most referrals from web seemed appropriate/relevant
San Antonio	Child of mother who needs some help caring for her in my home	Web-Taxonomy	Web referrals included a large number of home health care providers in the area
Austin	Interested in DADS waiver programs and want to have my son's name added to an interest list	Web-Taxonomy	Required an extensive search, but the 2-1-1 search linked to the DADS web site and further searching found the number to call to get on the interest list
El Paso	Need help paying my rent every month because my husband died and I live on only my SSI	Web-Taxonomy	Web referrals included a large number of appropriate providers in the area
Waco	Veteran and need help purchasing a home	Web-Taxonomy	2-1-1 linked to VLB web site which listed a good number of banks/mortgage companies. Some were based in other cities, but may provide services in Waco
Abilene	Older adult and need help fixing my home	Web-Taxonomy	Web provided some relevant referrals, but all were > 100 miles away

Table A.2 Summary of Mystery Shopping Scenarios - CONTINUED

CITY	SCENARIO	MODE (Wait Time)	NOTES
Tyler	Need help paying utility bills	Web-Taxonomy	Web provided a good list of relevant referrals, but the only way to find rent assistance was through the main menu for "Financial and Legal"; it would be good to have utility assistance available under the "Housing and Shelter" menu (rent payment assistance appears in both)
Marietta	Need help finding an affordable place to live for my father	Web-Taxonomy	Only close hit was Area Agency on Aging - is there a better search path? Seems like there should be more
Pearsall	Need help paying down payment and closing costs to purchase a home	Web-Taxonomy	Web provided a few relevant referrals
Haskell	Want to learn more about the state services provided by the Texas Department of Housing and Community Services	Web-Taxonomy	Search of “Texas Department of Housing and Community Services” yielded many hits because it searched for any of these terms. This type of inquiry would be better addressed by going straight to TDHCA web site

A.1.3 Meeting With 2-1-1 Program Manager

Both CSI and TDHCA teams met with Beth Wick (Program Manager of the 2-1-1 TIRN) for a presentation of the Texas 2-1-1 system and service. The presentation described the history of 2-1-1 in Texas, the different types of services 2-1-1 provides, the structure of the Texas 2-1-1 system, the governing bodies responsible for program oversight, and how Area Information Centers (AICs) function. Ms. Wick addressed both the benefits that using the 2-1-1 TIRN system provides to Texans as well as the current challenges administrators are facing as they continue to promote and streamline the 2-1-1 service.

A.2.0 Analysis

Once the data were prepared, the CSI team developed a number of measures to evaluate whether the needs of Texans were being met using the 2-1-1 service. These measures were derived using the results of the call data coupled with comparison data used to indicate a need for a particular type of service in each county (e.g. a need for housing or food services). It was then possible to generate maps that pinpoint areas of Texas that were either over or under-using the 2-1-1 program based on the estimated need for service in that area.

A.2.1 Comparison Data

Data from the American Community Survey (ACS – 2012 5 year estimates) and the Department of Housing and Urban Development Comprehensive Housing Affordability Strategy (HUD–CHAS 2007-2011) were used to indicate the need for particular services among Texans. About 88% of calls to the 2-1-1 program for the time period of the call data fell into one of four Big Count categories: (1) food & meals, (2) income support & assistance, (3) housing & utilities, or (4) health care. Comparison data was chosen to estimate an ambient need in each of those four areas for each county in Texas. The specific variables used to indicate the ambient need were as follows:

Table A.3 Need Indicator Data and Sources

Type of Need (Big Count Category)	Need Indicator Data	Data Source
Housing & Shelter	Individuals with cost burden >50% of income (own or rent)	HUD-CHAS 2007-2011
Food & Meals	Food Stamp/SNAP recipients	ACS 2012
Income Support & Assistance	Individuals with income below poverty for past 12 months	ACS 2012
Health Care	Uninsured individuals	ACS 2012

The available statewide data do not exactly align with the all of the specific referral types made in each Big Count category. For example, no reliable and publicly available statewide data provide an accurate estimate of the number of Texans in each county who need assistance with paying their electric bill. Instead, need measures were developed to best capture a general need given the broad range of referrals within each Big Count category.

Of the calls to 2-1-1 that requested housing-related service, 68.3% were explicitly related to rent or utility payment assistance. The housing need measure thus needed to incorporate some aspect of individual income or the cost of living in their residence. The HUD-CHAS data included a variety of measures for problematic housing, one of which was all residences where the cost burden was greater than 50% of the income of the resident(s). Food, income, and health care needs measures were all derived from the ACS data. Each of these measures broadly aligned with a 2-1-1 Big Count category.

A.2.2 Ratios

The CSI team developed a ratio measure that captured both the use of 2-1-1 service in a particular area (e.g. referrals about housing & utilities in a county) relative to the need for that type of service in that county as previously described. A ratio was determined to be the most efficient way of simultaneously capturing both request and need for services. The process for creating the ratios is listed below:

- Percentages were created first to figure out what proportion of the total number of people with a particular need in all of Texas fell into each county. *Example:* Anderson County has 1,545 total household with a housing need (cost burden>50%). Texas has a total of 1,077,694 households with a housing need (cost burden >50%). Thus, Anderson County makes up 0.143% of the total housing need in Texas.

- The number of referrals for the Big Count category related to that type of need (e.g. housing) were also converted into percentages based on the total number of housing referrals in the Texas. *Example:* Individuals in Anderson County received 1,644 referrals about housing & utilities issues. In all of Texas there were a total of 828,327 housing & utilities referrals. Thus, Anderson County makes up 0.201% of the housing & utilities referrals in Texas.

- The final measure is a ratio based on the percent of referrals through 2-1-1 compared to the relative need for that type of service. *Example:* Anderson County has a housing ratio of 1.401 = (0.201% referrals / 0.143% of needs)

- Interpretation of the ratios:

    - A ratio of 1 indicates a perfect match. The 2-1-1 service is being used for that category exactly relative to the proportion of people in that county that have a specific need.
    - A ratio over 1 indicates an overutilization of the 2-1-1 service. In other words, more people in that particular county are using 2-1-1 for referrals than would be expected based on the estimated level of need.
    - A ratio under 1 indicates an underutilization of the 2-1-1 service. In other words, fewer people are using 2-1-1 for referrals than would be expected based on the level of need.
    - A ratio of 0 indicates missing data (zero referrals for that particular type of service occurred in that particular county).
    - *Example*: Anderson County, with a ratio of 1.401, is over-using the 2-1-1 service for the Housing & Utilities related referrals based on its level of need.

A.2.3 Maps

Maps were created using ArcGIS to display the referral-needs ratios for all Texas counties. In the maps, ratios were grouped into quintiles (highest 20%, next highest 20%, etc.) and given a corresponding color. Darker colors show higher ratios. Each

map is also paired with a small excerpt of the ratio table used to generate the maps, indicating the location of both the top 5 highest ratio (most over-utilized) and bottom 5 lowest ratio counties (most under-utilized).

HOUSING AND HEALTH SERVICES COORDINATION COUNCIL (HHSCC)
2-1-1 TEXAS INFORMATION AND REFERRAL NETWORK EVALUATION

Appendix – Data Tables for Maps

County	Referral Ratio	Caller Ratio	Housing Ratio	Food Ratio	Income Ratio	Employment Ratio	Healthcare Ratio
Anderson	1.028320896	1.031667379	1.401259227	0.847601155	0.952929276	0.513432724	1.22996813
Andrews	1.621050056	0.995999437	1.053230128	0.713790953	0.943399664	0.46022726	0.322880977
Angelina	1.419893304	1.04725207	0.751544837	0.588737601	0.573206912	0.188002311	0.410367719
Aransas	1.829305448	1.041083106	0.255628638	0.448506377	0.605362696	0.536519967	0.450012182
Archer	1.922558399	1.063386875	0.499177977	0.736789718	1.145362324	0.728064437	0.208753273
Armstrong	4.721577884	1.060765274	0.633844376	0.720107687	0.130911331	0	0
Atascosa	1.15424995	1.008847952	0.72990257	0.699051906	1.051028297	0.508533557	0.636543039
Austin	1.663004024	0.98610357	0.648758361	0.759512721	1.324133327	0.291909403	0.647051294
Bailey	1.898659764	1.107683738	0.877003388	0.438644276	1.026507942	0.121013435	0.251011764
Bandera	1.863599812	0.976960126	0.314853854	0.563763451	0.698534419	0.269163216	0.583307182
Bastrop	1.036304595	0.960192328	0.939076178	0.765432539	1.338971748	0.955437733	1.862993378
Baylor	1.834704405	1.03449245	0.813155614	0.458250346	0.992276186	0	0.13496458
Bee	1.442222598	1.03489661	0.552282017	0.683164514	0.673535054	0.218777983	0.464271436
Bell	1.026855069	1.044446535	1.122475774	1.445660563	1.053259925	0.471472505	0.975193616
Bexar	0.644099391	0.992754191	1.428672959	1.391381308	1.430037839	2.172555515	1.716665895
Blanco	1.872565004	0.970679632	0.527961906	0.694051158	1.258934883	0.714674746	1.078849257
Borden	6.525372421	1.07096494	0.650524491	1.08016153	1	0	1.05977869
Bosque	1.523508949	1.016178935	0.884713308	0.592828867	0.914021064	0.567202179	0.603987009
Bowie	0.926938222	1.009031076	0.856432803	0.882248416	1.367160711	0.210273282	0.501664519
Brazoria	1.976012917	0.989996492	0.641710509	0.67495018	0.914188407	0.602226139	0.590986805
Brazos	1.128058954	0.969096514	0.627430156	0.885471084	0.441410673	0.806457052	1.502651288
Brewster	2.802291556	1.031192049	0.792457107	0.487747357	0.602109235	0.41122158	0.18605591
Briscoe	2.991605473	1.102908949	0.292736021	0.701643387	0.428869435	0	0.086834753
Brooks	1.044223089	1.103102129	0.365070461	0.368343371	0.450964651	0.301438443	0.386878702
Brown	1.385306889	1.043095964	0.929320701	0.772534299	0.571630857	1.414893365	0.864353346
Burleson	1.001281697	0.95340506	1.31166979	0.732561227	1.3490692	1.124352674	1.668502796
Burnet	1.619411611	0.961888511	0.631402445	0.491176195	0.825721545	0.725685141	0.842162137
Caldwell	1.067462403	0.972185398	0.819705263	0.690021798	0.993169235	0.63690579	1.292567184
Calhoun	1.424122716	1.052220521	0.704097096	0.621566635	0.916045006	0.308952561	0.571792506
Callahan	1.260328764	1.002839203	1.377929149	0.958972675	0.657171511	0.544263856	1.391709374
Cameron	0.80464462	0.981359466	0.634102604	0.854755067	0.829269206	0.407755992	0.341173429
Camp	0.940886131	1.084609655	0.893386968	0.762197844	1.157405731	0.630595364	0.642954324
Carson	5.491758433	1.102908949	0.479333835	0.882385475	0.324669046	0.728064437	0.607021167
Cass	0.916835911	1.023489743	1.385487922	0.752742049	1.292689712	0.277574566	0.586368568

County	Referral Ratio	Caller Ratio	Housing Ratio	Food Ratio	Income Ratio	Employment Ratio	Healthcare Ratio
Castro	1.712242264	1.137351285	0.568352976	0.652037806	0.520643438	0.61683237	0.252738549
Chambers	2.054098321	1.001626753	0.619270242	1.041836471	1.235933061	0.431564697	0.464192657
Cherokee	1.08979967	1.084746556	0.937422472	0.741418875	0.822695906	0.552710703	0.806599202
Childress	1.441637202	1.131325283	0.661073537	1.181426673	0.808217672	0	0.47436686
Clay	1.686947176	1.071714181	0.759387773	0.740270702	2.238181469	0.138787283	0.495446537
Cochran	2.288981501	1.149258152	0.477051293	0.344732403	0.656707943	0.300080612	0.240362177
Coke	1.839336847	1.058680671	0.884713308	0.45216064	0.701552089	0	0.558818057
Coleman	1.309306082	1.034348328	0.488965661	0.484755418	0.401581581	1.352647634	0.712728504
Collin	2.562188599	0.991174145	0.551587034	1.35413615	0.970193156	0.270631358	0.700125123
Collingsworth	1.150026601	1.150931296	0.306675831	1.203683651	0.552990986	0	0.80523216
Colorado	1.621893639	1.015982365	0.625226316	0.61805814	0.797840734	0.186213546	0.644565182
Comal	1.763748219	0.989458909	0.519330849	0.996284605	1.190622016	0.678243875	0.894929807
Comanche	1.509611265	1.040573393	0.571388522	0.706214934	0.502347235	0.868389705	0.333813283
Concho	2.198672722	1.042183704	1.127575784	0.417205247	0.421981965	0.499010457	0.113871215
Cooke	1.380202262	1.00502238	0.802049098	0.612317983	0.893252036	0.635970367	0.742305189
Coryell	1.759788636	1.041064426	1.219465052	0.991201831	0.711374072	0.534368149	0.790455076
Cottle	1.494836455	1.053174825	0.717820128	0.601327037	1.006398477	0	0.124347366
Crane	1.667015533	1.014559558	0.50247409	0.710755639	0.909707949	0.565757078	0.726166488
Crockett	2.254073441	1.067406917	0.925190387	0.858000648	0.54809686	0	0.462995513
Crosby	1.182105804	1.106328746	1.120347734	0.468709145	0.481581197	1.00936206	1.204733222
Culberson	1.794206689	1.080973958	0.169702041	0.264945281	0.452426116	0.97967494	0.315923187
Dallam	1.359627502	1.093751428	1.691363676	1.377293342	1.000458053	0	0.579257917
Dallas	0.763279014	1.02148802	1.200786821	1.55633039	1.11197785	0.653342769	0.853878748
Dawson	1.393972709	1.023924689	0.926712082	0.710088797	0.848473571	0.238133676	0.339870717
Deaf	1.356735851	1.109330861	0.896958475	1.220553877	0.718508592	0.453182966	0.244265387
Delta	1.001628958	1.013134297	0.74975704	0.772101021	1.258952372	0.206567119	0.426626371
Denton	2.695003718	0.99660113	0.45656864	0.919254964	0.860419831	0.236366017	0.647171438
DeWitt	1.791227087	1.063260156	0.807664173	0.525998321	0.792142049	0.675833727	0.3754241
Dickens	1.93439471	1.102279704	0.451030314	0.309421272	0.438999932	1.741644339	0.425847145
Dimmit	1.068578269	1.002967166	0.539838234	0.549455174	0.782559819	0.393897389	0.307663587
Donley	1.740486517	1.049108513	0.983014786	1.009436668	0.580967834	0	0.592757572
Duval	0.99119807	1.109087732	0.907560997	0.642637085	0.836296816	0	0.358143336
Eastland	1.266442976	1.019183024	2.108076466	0.541357552	0.602823748	0.971510983	0.77234389
Ector	1.172681178	0.980600609	1.134255736	0.699825908	1.1195844	1.216136566	0.709173573
Edwards	1.25347197	1.049781018	0.416335674	0.743525823	0.960335755	0	0.220474054
El Paso	0.80534689	1.005308298	5.807593533	0.887000263	0.961415021	1.335388588	1.295793247
Ellis	1.726616675	1.029252949	0.118567177	0.718953051	1.031222717	0.29706977	0.642704496
Erath	2.644972853	1.000509327	0.259562508	0.484467353	0.382211952	0.562724267	0.432707053
Falls	1.034432122	1.035959686	0.816112543	0.665884702	0.877179458	0.554159562	1.095946282

County	Referral Ratio	Caller Ratio	Housing Ratio	Food Ratio	Income Ratio	Employment Ratio	Healthcare Ratio
Fannin	1.171064105	0.999259469	1.353313343	0.526021117	0.843651641	0.583344098	1.027821488
Fayette	1.892640868	0.983190626	0.494398613	0.681287865	0.868701517	0.290274056	0.643005474
Fisher	1.515503693	1.047850589	0.867365988	0.854527788	0.542417334	0.965476753	1.338027614
Floyd	1.900014981	1.128763048	0.492135919	0.311625549	0.463515056	0.373209501	0.770111682
Foard	1.644923051	1.073473055	0.094621744	0.428172138	0.906906141	0	0.131352852
Fort Bend	2.068433534	0.975250674	0.62445484	0.978532074	1.08601995	1.201984528	0.833292103
Franklin	1.448610454	1.012463006	0.574489161	0.78131684	1.234025996	0.965476753	0.518114026
Freestone	1.189396245	1.020378385	1.015184699	0.738789726	1.003720087	1.133921633	0.648682087
Frio	1.082026414	1.013835663	0.871702818	0.620685643	0.846970068	0.657954528	0.511976299
Gaines	2.432012121	1.009138197	0.754608409	1.021081487	0.651835387	0.952534705	0.191295792
Galveston	1.499880141	0.98771946	0.602649592	0.726035783	0.915212458	0.614422868	0.758365332
Garza	1.660141478	1.109213688	0.9616449	0.360053843	0.548191197	0	0.429552058
Gillespie	3.501583885	1.020871638	0.181140521	0.511558612	0.801088499	0.364032218	0.298656676
Glasscock	5.233224627	1.004274816	0	1.337342847	1.638153871	0	0.209104315
Goliad	1.639560448	1.057136124	0.392447562	0.698576228	0.906351272	0.584367508	0.802241073
Gonzales	1.163632255	1.042032112	0.934389723	0.907692251	0.811215691	0.481691222	0.424728261
Gray	2.018107913	1.086673031	0.635218032	0.585805394	0.604595811	0.332258833	0.423242318
Grayson	0.763319024	0.974449831	1.966720013	0.82027985	1.049123061	1.463757668	1.893915145
Gregg	0.797738201	1.060889461	1.174050695	1.259990257	1.398004206	0.721005413	1.134357542
Grimes	0.910698395	0.969322349	1.223949783	0.830550229	1.347850547	1.843065395	1.380501188
Guadalupe	1.847185456	0.985402364	0.542073667	0.822528785	1.256957031	0.433191077	0.757762102
Hale	1.512017681	1.107490193	1.095107539	0.525493968	0.534307647	0.635591136	0.556348689
Hall	1.448125634	1.12057367	0.394511627	0.751587804	0.437055611	0.467494007	0.478609731
Hamilton	2.408219105	1.069028295	0.561236816	0.459691385	0.745107481	0.182765147	0.254611417
Hansford	2.741696525	1.130097974	0.44035504	0.508876099	0.434011067	0	0.130010025
Hardeman	1.445880994	1.093012253	0.481388123	0.438326418	0.686046744	0.207532386	0.596867358
Hardin	1.235099095	1.028738666	0.890607563	0.719080429	1.273658593	0.435913869	0.759338099
Harris	0.883625378	0.982039899	1.222370378	1.133039801	1.005167388	1.531171626	1.077718678
Harrison	1.310776892	1.064471482	0.934277078	0.688798657	0.956262267	0.456407192	0.625103563
Hartley	10.74275046	1.099790083	0.198255083	0.240035896	0.251875282	0	0
Haskell	1.444193366	1.042046662	1.014818206	0.266516724	0.619128442	0.208506717	1.547371934
Hays	1.569640171	0.956388189	0.409148515	0.897325935	0.795250042	0.611173357	1.156004743
Hemphill	3.2983688	1.119793129	0.083638863	0.524238396	0.365233164	0	0.234322926
Henderson	1.066156313	1.030365999	1.029671383	0.68024613	0.972780479	0.593855806	1.099906871
Hidalgo	0.797872496	0.980297882	0.731097431	0.7392158	0.853449454	0.436673297	0.401948218
Hill	1.002720236	1.007000159	0.962363215	0.718364928	1.004619625	0.839280579	0.8077952
Hockley	2.102879201	1.070443958	0.93473422	0.451176475	0.492767728	0.449903784	0.578061104
Hood	2.303642038	1.00899554	0.305905175	0.566344639	0.903161047	0.258810785	0.612997685
Hopkins	0.664686139	1.063857771	1.627800978	1.154413879	1.861248792	0.514423907	0.499183632

County	Referral Ratio	Caller Ratio	Housing Ratio	Food Ratio	Income Ratio	Employment Ratio	Healthcare Ratio
Houston	1.244249133	1.107891004	0.685109337	0.698727971	0.614136258	0.195360399	0.388019658
Howard	1.30127456	1.003300489	0.912867154	0.768152548	1.00182298	0.899602006	0.563712069
Hudspeth	0.953194083	1.036506609	0.260209796	0.702420831	0.534397531	0	0.391485412
Hunt	1.491936056	1.025626362	0.490513964	0.716665662	0.656265552	0.131368483	0.524853497
Hutchinson	2.455744392	1.10003611	0.558499075	0.579257608	0.512641182	0.057828035	0.354602756
Irion	3.655651576	1.103287826	0.27879621	0.473213623	1.195901468	0	0.376050503
Jack	1.944518576	1.002105443	0.849508453	0.572393289	0.634767471	0.933023753	0.574107197
Jackson	1.21554046	1.073845427	0.871308561	0.92443272	1.278997724	0.716321462	0.678191709
Jasper	1.388949468	1.08803136	0.6103806	0.500615404	0.643424881	0.28489478	0.407597291
Jeff Davis	5.075289661	1.138962714	0.088206711	0.254155654	0.702167671	0	0.107443001
Jefferson	0.608149264	1.046295815	1.128311497	1.159214136	1.414879956	1.050804204	1.253325934
Jim Hogg	1.280159331	1.061503711	0.55399505	0.449660003	1.50385823	0.187392112	0.425199961
Jim Wells	1.404223219	1.05258461	0.689305759	0.501264307	0.703775028	0.236593238	0.46398271
Johnson	1.491731642	0.959311791	0.931901613	0.668861352	1.161162365	0.402389976	0.831069109
Jones	1.127546544	1.031990819	1.310342189	0.818968024	0.675880322	1.002526651	1.612723837
Karnes	1.288219333	1.038511457	0.717435581	0.42896896	0.708510809	0	0.958156076
Kaufman	1.270879553	1.023081011	0.857453234	0.976559411	1.231931507	0.396703762	0.791610603
Kendall	2.455646781	1.011532538	0.213465522	0.640004902	1.239817648	0.539143316	0.933220557
Kenedy	2.037343691	1.01996661	1	1.224183067	0.436210977	0	0
Kent	1.611851131	1.022548804	0.468377633	0.673649126	2.265265739	0	0.568661736
Kerr	1.836818649	1.004377185	0.304342295	0.638277268	0.893721366	0.585137426	0.49367939
Kimble	1.526576001	1.060082451	0.539006007	0.603961286	0.878162482	1.092096655	0.484051166
King	3.0763438	1.223959932	0.325262245	1	1.198688	0	1.295285065
Kinney	1.609242029	1.046058779	0.669110905	0.52635674	0.532906729	0.281088169	0.187019769
Kleberg	1.448677062	1.01564125	0.417217741	0.551747515	0.528753794	0.152408822	0.459445232
Knox	1.535052748	1.045870523	0.816112543	0.491639786	0.44635244	1.387872832	0.954234564
La Salle	0.993917084	1.049108513	0.096198773	0.624093328	0.793322938	0.195647272	0.390912379
Lamar	0.904582171	1.022295832	8.675394611	0.659358286	1.399646676	0.363573739	0.555800804
Lamb	1.408399554	1.122735973	0.919219389	0.589351291	0.541619472	0.605273331	0.620680354
Lampasas	1.819255369	1.01462647	3.122517556	0.671697086	0.660327694	0.393025935	0.490005201
Lavaca	1.376847486	1.072887678	0.881243844	0.930973773	1.885924289	0.909220627	0.904400223
Lee	1.682190095	0.97346036	0.805810982	0.771322242	1.011052527	0.993555495	0.790080857
Leon	1.144887772	0.997720601	1.121681064	0.91938277	1.049660595	1.675921911	1.039036258
Liberty	1.121138393	1.002420528	0.882971317	0.701383137	1.025463166	0.569529759	0.791225095
Limestone	0.915296959	1.017304646	1.615721294	1.426974355	1.043183961	1.485610356	0.975218035
Lipscomb	2.490307208	1.046657325	0.672208641	0.742379058	0.667842761	0	0.068674908
Live Oak	2.111797876	1.078174128	0.28952921	0.720107687	0.645135652	0.453182966	0.338063768
Llano	1.298671855	0.982375279	0.615187358	0.809990504	1.06509909	1.632791567	1.473114282
Loving	1.727902354	0.917969949	1	0.720107687	0.88586724	0	0

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Lubbock	0.887497539	1.107793405	0.926202505	1.260108758	0.457750936	1.243912434	1.612405708
Lynn	1.849673026	1.142522284	0.505113134	0.457859514	0.534064071	0.608382611	0.203752707
Madison	1.065206034	0.998033207	1.922661273	0.834670273	0.855394652	1.34581608	1.222346683
Marion	1.011194551	1.063931737	0.029711455	0.678624378	0.915085632	0.572318694	1.230710737
Martin	1.420348135	1.038442899	19.51573473	1.28949516	1.137652117	0	0.574795222
Mason	2.842732953	1.0729869	0.086736599	0.412645978	0.547435728	0	0.136879439
Matagorda	1.350555759	1.042434488	0.980625348	0.667715951	0.782689391	0.235954767	0.468543484
Maverick	0.922447295	1.008735444	17.66824517	0.622230308	0.850978423	0.316032993	0.243712173
McCulloch	1.734253276	1.057565379	1.579845192	0.669252624	0.592060008	1.669621452	0.416589598
McLennan	0.834083746	1.019789756	8.975818649	1.093477517	0.906675844	1.228053145	1.488824042
McMullen	1.664526005	1.043965824	0.000697613	0.806520609	1.008167719	14.80397688	0
Medina	1.514771927	0.99619147	0.515463216	0.612884056	0.766016896	0.49202722	0.684715151
Menard	2.098742797	1.04290077	0.686007645	0.313090299	0.464148823	0	0.081237391
Midland	1.341826557	0.988888449	1.319973331	0.775809284	1.253888821	2.266225228	1.030879234
Milam	1.228573192	1.052643611	0.838134316	0.584774223	0.804359001	0.179987561	0.555242353
Mills	2.253806476	1.105163821	0.312251756	0.569387473	0.67652773	1.460918771	0.248562166
Mitchell	1.08543104	1.053669854	1.456676851	0.865374367	0.935730099	1.051169956	1.44702133
Montague	1.381224494	1.006023662	0.640019126	0.688102901	1.030586404	0.293148057	0.397106769
Montgomery	2.183362934	0.977805828	0.442869571	0.724172612	0.78407903	0.529719766	0.66504171
Moore	2.140813999	1.132162937	0.757327019	1.090278745	0.523755482	0.521616635	0.26006839
Morris	0.738045454	0.996164955	1.613300738	0.90535607	1.551304981	0.46022726	1.050070793
Motley	2.929810904	1.147462436	0.260209796	0.613425066	0.378575231	0	0.284330868
Nacogdoches	1.766330936	1.08335868	0.339342091	0.582078437	0.369642689	0.244021597	0.303512454
Navarro	1.228431677	1.039786099	0.739697511	0.724969629	0.848445249	0.208180925	0.696884175
Newton	1.617084281	1.109432252	0.656871071	0.525654897	0.568045366	0.129859446	0.381373646
Nolan	0.914240729	1.035337557	1.848699832	0.863164794	0.664332957	0.732064791	1.425080013
Nueces	1.296647256	1.020141062	0.49098653	0.656853091	0.773964863	0.506384627	0.61874236
Ochiltree	3.102312493	1.112276437	0.180701247	0.572703093	0.353216934	0.24202687	0.213818551
Oldham	2.768999823	1.147462436	0.494398613	2.108886796	0.360414232	0	0.431761688
Orange	0.874390033	1.033132241	1.195106422	0.877608645	1.328763945	0.684292587	1.082059405
Palo Pinto	1.464005262	0.981079138	0.78945006	0.648037356	0.809606016	0.362916696	0.751300777
Panola	1.209721722	1.08585225	1.122757084	0.836653144	1.458532799	0.807489648	1.041343423
Parker	2.457610005	0.981770385	0.386773378	0.584687181	0.764166325	0.387559798	0.805133528
Parmer	1.857312494	1.123475194	0.510782193	0.669351198	0.573273884	1.818032248	0.332331491
Pecos	1.466442707	0.994890082	0.499602809	0.757689064	0.958619905	1.432642924	0.302690463
Polk	1.738819287	1.070451667	0.444239751	0.414337441	0.513074378	0.180699537	0.389923492
Potter	0.670164278	1.064232428	1.779902282	1.286434217	0.553409455	1.413338389	1.219956196
Presidio	1.696212542	1.024437696	0.250572397	0.30915618	0.629411335	0.150040306	0.190241324
Rains	1.380734978	1.06057418	1.049512845	1.067225464	1.474952121	0.361807989	0.522886402

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Randall	1.766336911	1.048713636	0.98314833	0.872177486	0.552628555	1.114039443	0.942594702
Reagan	2.604374563	0.999271635	0.380306625	0.474356651	1.086100889	0	0.105260186
Real	1.586214972	1.043857719	0.603686728	0.788439073	0.565319399	0.321825584	0
Red River	0.975445079	1.017035671	1.578840521	0.695439966	1.473778155	0.472467347	0.556890076
Reeves	1.333376163	1.010064021	0.867365988	0.676878473	0.742605956	0.298066649	0.418342629
Refugio	1.311231044	1.028126342	0.944465187	0.562878934	1.127699012	0.396535095	0.635563117
Roberts	8.066254756	0.917969949	0.065052449	1.131597793	0.370540951	0	0
Robertson	0.806666922	0.999294956	1.081752675	0.807824508	1.054617635	0.400107483	1.165756559
Rockwall	3.604285898	1.007046839	0.330080945	0.715753294	0.964371413	0.164895782	0.346407232
Runnels	1.500067884	1.071379561	1.153086549	0.585612866	0.450677542	0.403744824	1.086187043
Rusk	1.344715642	1.070283565	1.222755769	1.002123626	1.017461621	0.741375631	0.676252254
Sabine	1.933137416	1.07459533	0.33610432	0.621149971	0.331159695	0	0.263845317
San Augustine	1.557050812	1.10385802	0.565143151	0.579245671	0.398999117	0.647404237	0.49344193
San Jacinto	2.143211719	1.052348123	0.64866585	0.38840454	0.45577821	0.193455827	0.505601662
San Patricio	1.406922722	1.028014279	0.623931622	0.701525673	0.809316618	0.384756825	0.692907871
San Saba	2.598191167	1.097964056	0.179255638	0.442911422	0.515436426	0.608382611	0.274618742
Schleicher	2.787513063	1.083714523	0.260209796	0.687743296	0.327308249	0	0.329931102
Scurry	1.462010585	1.044896463	0.778580493	0.541501496	0.619451395	0.702720421	1.093817053
Shackelford	2.276765455	1.052084707	0.650524491	0.976584397	0.512820964	0	0.3902114
Shelby	1.679294184	1.085237795	0.541300626	0.512520318	0.414944048	0.147384726	0.299090287
Sherman	2.824210305	1.102987148	0.936755267	1.381431072	0.388391549	0	0.312116883
Smith	0.911642254	1.067545757	1.06941714	1.102391195	1.219278662	0.698963685	1.476428403
Somervell	2.125773969	1.002129356	0.430346971	0.833065755	1.055593623	0	0.498592418
Starr	0.802243639	0.982745198	0.780629389	0.594031392	0.814236758	0.248632222	0.348615994
Stephens	1.953728862	1.047202775	0.44181455	0.457319573	0.521761782	0.802625252	0.521008518
Sterling	3.222707293	1.081164606	0.297382624	0.758008091	0.419557603	0	0.177301378
Stonewall	2.69688289	1.034537561	0.890191409	0.500074782	0.546487405	0	0.538041489
Sutton	2.314033937	1.049715636	1.478464752	0.943589382	1.575864238	1.531445884	0.379107824
Swisher	1.459360657	1.125920588	0.884713308	0.878663507	0.608697079	0.901111636	0.161164501
Tarrant	0.911111374	0.957576908	1.305722553	1.197223481	1.207084586	1.236235893	1.161600185
Taylor	0.533476783	0.994820956	2.884735481	1.616280494	0.976705194	2.775745665	3.769260762
Terrell	2.543573907	0.994467444	0.455367144	1	0.738304643	1	0
Terry	1.645960223	1.110329699	0.860693942	0.504285938	0.587515578	0.138787283	0.554765179
Throckmorton	1.5614042	0.968968279	2.758223842	0.55870424	0.881881427	8.882386127	0.671905798
Titus	1.19200234	1.041993172	0.812226293	0.835269417	1.13429261	0.410841171	0.450614561
Tom Green	1.404572122	1.053739674	0.834852748	0.598220158	0.683445974	0.480192288	0.51059872
Travis	0.83772371	0.96835921	0.881504742	1.00934168	1.066416937	1.613295662	2.539760241
Trinity	1.428181847	1.056817822	0.756139055	1.247485822	0.750365609	0.334763296	0.67915642

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Tyler	1.711633197	1.087964384	0.679577041	0.355721065	0.500519619	0.245098955	0.54485214
Upshur	1.384822724	1.059940696	1.056530228	0.644004962	1.055492599	0.365667094	0.73856427
Upton	1.411612069	1.016676395	0.980790771	0.671778312	1.109171825	3.625463725	0.502075503
Uvalde	1.200208289	1.006559683	0.566793616	0.585222381	0.690983515	0.179369671	0.140452597
Val Verde	1.25659006	1.00575812	0.602390444	0.731656099	0.88916009	0.361938073	0.271929154
Van Zandt	1.28371399	1.062981375	0.817895616	0.799337139	0.943271919	0.347594882	0.963467541
Victoria	1.133983868	1.065562785	0.807250276	0.73796538	0.89030719	0.631319162	0.654615251
Walker	1.319728191	1.003084404	0.42589894	0.80683714	0.602779607	0.641584873	0.902784245
Waller	1.74815884	0.993676424	0.482291165	0.735855568	0.598326087	0.458445736	0.598797003
Ward	1.391045888	0.993402369	1.191486962	0.614172405	0.673334253	0.772381402	0.506133098
Washington	1.364380925	0.984705944	0.538013849	0.889966975	1.031010255	0.906365931	1.096159152
Webb	1.036784205	1.043354045	0.477099108	0.638394847	0.778550052	0.38403622	0.278595568
Wharton	1.231040383	1.019133984	0.759692969	0.704701018	0.910445698	0.15453003	0.5319588
Wheeler	2.091748801	1.111615783	0.483246765	0.551806656	0.743686988	0.358160731	0.455246634
Wichita	0.689648324	1.063281918	1.205982772	1.178276522	2.548506265	0.938367175	0.831410689
Wilbarger	1.515982394	1.041854305	0.828484064	0.482648864	0.73813773	0.16149793	0.504110944
Willacy	0.93555956	0.998745629	0.799383248	0.604647382	0.610522158	0.358884288	0.276437356
Williamson	1.772751971	0.931110623	0.851909781	0.730479906	1.524378334	0.793404114	1.480814967
Wilson	2.142448527	0.990353653	0.552795927	0.619264204	0.907333873	0.524255505	0.740550414
Winkler	1.233453736	1.000939033	1.158353287	0.639048444	1.211788817	1.245194317	0.778513303
Wise	2.098170989	0.979005903	0.627773908	0.567868925	0.904986661	0.282405181	0.643911932
Wood	1.240481886	1.064073274	0.763755716	0.885362553	1.163450227	0.514548074	0.830673562
Yoakum	2.638231311	1.095254867	0.731065618	1.105677157	0.792802605	0.510481961	0.364909823
Young	1.70860813	1.017372475	0.645402251	0.448977553	0.94182265	0.226014914	0.37838399
Zapata	1.68730615	1.07505086	0.477762249	0.262221284	0.443395013	0.243353045	0.16884227
Zavala	0.850060354	1.021563978	0.65209202	0.587723175	0.70625267	0.547169577	0.414832647

County	*Housing Need: Cost Burden > 50% (Own or Rent) (% of total)*	*Food Need: Food Stamp/SNAP Recipients (% of total)*	*Employment Need: Unemployment (Civilian, Age 16+) (% of total)*	*Health Care Need: Uninsured (% of total)*	*Income Need: Income Past 12mo Below Poverty (% of total)*
Anderson	0.143361659	0.217394732	0.1621186	0.181020703	0.212409738
Andrews	0.029229076	0.05286476	0.040191252	0.078590931	0.052530091
Angelina	0.311312859	0.495166584	0.319759935	0.275270135	0.369341642
Aransas	0.13176282	0.128359347	0.077571199	0.090949211	0.09660768
Archer	0.022733726	0.024021005	0.012702935	0.031369666	0.02386608

County	*Housing Need: Cost Burden > 50% (Own or Rent) (% of total)*	*Food Need: Food Stamp/SNAP Recipients (% of total)*	*Employment Need: Unemployment (Civilian, Age 16+) (% of total)*	*Health Care Need: Uninsured (% of total)*	*Income Need: Income Past 12mo Below Poverty (% of total)*
Armstrong	0.003618838	0.00231863	0.004164897	0.004564137	0.005681845
Atascosa	0.128515144	0.269610275	0.218240581	0.176175695	0.18002245
Austin	0.102533743	0.08643852	0.110890372	0.096145305	0.059684818
Bailey	0.012526747	0.036541606	0.038212926	0.042393813	0.018115251
Bandera	0.092790718	0.086716755	0.068720794	0.071569182	0.077199919
Bastrop	0.270484943	0.275545968	0.290397414	0.265825882	0.235746378
Baylor	0.007423257	0.01428276	0.004581386	0.012130072	0.012649631
Bee	0.068201178	0.117508159	0.105684251	0.084629636	0.129208864
Bell	1.104673497	0.895362091	1.186787282	0.777272563	0.965029804
Bexar	7.153236447	7.543801236	6.800547267	5.96948769	6.964786485
Blanco	0.032012798	0.028194539	0.04529325	0.034143257	0.022303876
Borden	0.000371163	0.000370981	0.001041224	0.000772392	0
Bosque	0.046395359	0.078184198	0.081527851	0.066408196	0.055540924
Bowie	0.331262863	0.487283243	0.41784325	0.300232455	0.383086498
Brazoria	0.917700201	0.885902081	1.028937701	1.049891988	0.768684
Brazos	1.476764276	0.649030859	0.814237282	0.52786002	1.330380758
Brewster	0.010206979	0.031904346	0.011245221	0.035196519	0.026868946
Briscoe	0.003711629	0.003617063	0.002498938	0.009426699	0.007371069
Brooks	0.031084891	0.092652448	0.046022107	0.035968912	0.064326327
Brown	0.110420954	0.15414251	0.058829164	0.127848504	0.146062031
Burleson	0.045467452	0.091168525	0.049354025	0.046606862	0.05672079
Burnet	0.160991896	0.172413313	0.127445836	0.160376759	0.153813249
Caldwell	0.135938402	0.17092939	0.188773938	0.158954855	0.163922871
Calhoun	0.055210477	0.10572952	0.119740777	0.070147278	0.085766278
Callahan	0.040827916	0.038025529	0.042481945	0.051171	0.047396115
Cameron	1.330618896	2.989455799	1.519666642	2.452047595	3.275907343
Camp	0.041755823	0.072990467	0.05133235	0.050925238	0.061373995
Carson	0.008815118	0.006584909	0.006351467	0.014833446	0.010309516
Cass	0.070056992	0.186232347	0.149936277	0.117263217	0.139103751
Castro	0.017630236	0.037283567	0.014993628	0.038865384	0.044645354
Chambers	0.083047693	0.066220068	0.117866573	0.096987915	0.068683512
Cherokee	0.14475352	0.253843593	0.142231218	0.203981823	0.276435478
Childress	0.017166283	0.017807077	0.012598812	0.017255949	0.018981576
Clay	0.022733726	0.023186298	0.033319173	0.028086998	0.020479921
Cochran	0.005567443	0.017436096	0.015410117	0.017027743	0.01047698
Coke	0.006959304	0.01196413	0.007913304	0.013183335	0.009674747

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Coleman	0.042219777	0.057038294	0.020512116	0.045939796	0.060660246
Collin	2.67654826	0.880615605	2.443440704	2.036693556	1.372914222
Collingsworth	0.012990701	0.012706091	0.006559712	0.011182136	0.016981654
Colorado	0.066809317	0.081152044	0.049666392	0.081276751	0.079943761
Comal	0.332654724	0.254400064	0.354536822	0.296352938	0.248720849
Comanche	0.045003498	0.05768751	0.037275824	0.071112768	0.084213951
Concho	0.004175582	0.011685894	0.009266895	0.014377032	0.01189807
Cooke	0.152176777	0.147464857	0.174509167	0.15769094	0.122303959
Coryell	0.140577938	0.150525448	0.233650698	0.124267412	0.190954038
Cottle	0.002690931	0.008996284	0.001353591	0.00658289	0.005635553
Crane	0.013454654	0.01428276	0.016347219	0.015781382	0.016352895
Crockett	0.004175582	0.008718048	0.014889505	0.012375834	0.014079831
Crosby	0.016702329	0.047021813	0.018325545	0.023101556	0.038420253
Culberson	0.010670933	0.019661981	0.014160648	0.012955128	0.014796585
Dallam	0.009279072	0.01910551	0.011453466	0.028262542	0.019609216
Dallas	11.77003862	8.855403752	11.12641711	11.67627418	10.31975978
Dawson	0.026445355	0.053328486	0.038837661	0.048169202	0.048435146
Deaf	0.039436055	0.069929875	0.051019983	0.100533899	0.071948126
Delta	0.027373262	0.025690418	0.022386319	0.019186931	0.021712743
Denton	2.285899337	1.084562284	2.602019142	1.809978819	1.314229621
DeWitt	0.035724426	0.087736952	0.047896311	0.063230854	0.064203828
Dickens	0.006959304	0.011871385	0.005310243	0.007688816	0.010377872
Dimmit	0.031084891	0.087273226	0.046959209	0.042569356	0.062494941
Donley	0.008351165	0.010387462	0.003852529	0.012428497	0.012483006
Duval	0.019022097	0.090519308	0.043314924	0.057139487	0.055366308
Eastland	0.032012798	0.104616577	0.033319173	0.076308863	0.087143452
Ector	0.39157683	0.638828888	0.403057867	0.682162966	0.503426134
Edwards	0.006959304	0.011407659	0.012911179	0.0074255	0.009197656
El Paso	0.417558231	5.159878801	2.929588258	3.937446042	4.350539731
Ellis	2.914092497	0.520578767	0.591519438	0.478883317	0.373812216
Erath	0.186509343	0.116487962	0.106829597	0.168363999	0.193149195
Falls	0.061241874	0.100999515	0.058412675	0.054523885	0.077800837
Fannin	0.10856514	0.157945063	0.118907798	0.114682724	0.118143081
Fayette	0.083511646	0.068816933	0.031861459	0.066197544	0.081342905
Fisher	0.011134886	0.013911779	0.014368893	0.012235399	0.012855956
Floyd	0.021341865	0.047578284	0.012390567	0.021258347	0.034100578

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Foard	0.005103489	0.006863144	0.009995752	0.006231803	0.005433632
Fort Bend	1.984329504	0.993950231	1.654296924	1.800604783	1.125038217
Franklin	0.035724426	0.037098077	0.028737786	0.037917447	0.034206466
Freestone	0.06588141	0.078647923	0.048937535	0.065618249	0.063731257
Frio	0.027837215	0.118899337	0.056226104	0.060755688	0.077611846
Gaines	0.018558144	0.029956697	0.038837661	0.106976354	0.069179986
Galveston	1.303709587	1.070279525	1.279456231	0.933664479	0.862100244
Garza	0.010670933	0.023742769	0.004581386	0.017150623	0.01899602
Gillespie	0.0839756	0.054441428	0.063514673	0.082224687	0.052576826
Glasscock	0.000371163	0.000649216	0.000937102	0.003914625	0.000964875
Goliad	0.028301169	0.027916303	0.015826607	0.016325568	0.023902099
Gonzales	0.040827916	0.086160284	0.096000866	0.10021792	0.106477056
Gray	0.063097688	0.075587332	0.083506177	0.088965566	0.072586111
Grayson	0.466273358	0.590044916	0.546538554	0.442580872	0.427255205
Gregg	0.485759409	0.505461301	0.461782909	0.451006972	0.469540315
Grimes	0.075160482	0.119734044	0.077779444	0.085384474	0.081743509
Guadalupe	0.334510538	0.359294877	0.469696212	0.352158293	0.293291464
Hale	0.086759321	0.180853126	0.11640886	0.119176644	0.162529481
Hall	0.014382561	0.01697237	0.009891629	0.011972083	0.021699021
Hamilton	0.023661633	0.029492971	0.025301747	0.022504707	0.023084978
Hansford	0.012062793	0.020867668	0.007288569	0.018888506	0.022279693
Hardeman	0.018558144	0.023464534	0.022282197	0.010971484	0.021819703
Hardin	0.1679512	0.260057521	0.180340022	0.166011713	0.152351271
Harris	18.13826559	14.74138467	18.02390234	18.95115776	17.01144702
Harrison	0.194860508	0.307172079	0.263429709	0.265825882	0.242102343
Hartley	0.009743025	0.007234125	0.006351467	0.01107681	0.00775194
Haskell	0.013918608	0.052122798	0.022178074	0.019573127	0.025229299
Hays	0.836508322	0.368569396	0.635563219	0.518327995	0.613807607
Hemphill	0.012990701	0.011593149	0.002811305	0.013973282	0.01705616
Henderson	0.324303559	0.385356276	0.327048504	0.311081058	0.325732733
Hidalgo	2.529938925	6.399696538	3.484040116	4.985336832	6.2748921
Hill	0.146145381	0.191611568	0.132235467	0.143893202	0.135585308
Hockley	0.04778722	0.097846178	0.071948589	0.089211328	0.088115292
Hood	0.190220972	0.139859751	0.178674064	0.173595202	0.127241839
Hopkins	0.121555841	0.166848602	0.134838527	0.150862288	0.144267805
Houston	0.073304667	0.137448376	0.071011487	0.084383875	0.097498468

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Howard	0.084903507	0.118157376	0.097666825	0.108907335	0.107471728
Hudspeth	0.012990701	0.02643238	0.01166171	0.018818289	0.032361241
Hunt	0.39157683	0.368662141	0.492811388	0.33063663	0.384084316
Hutchinson	0.057066292	0.071599289	0.079966014	0.083102406	0.070008452
Irion	0.00129907	0.003246082	0.003748407	0.006530227	0.002565637
Jack	0.015774422	0.025319438	0.024781135	0.025664494	0.034275031
Jackson	0.030620937	0.060469866	0.032277949	0.044658327	0.041436374
Jasper	0.124803516	0.247073194	0.146083748	0.144595377	0.14060205
Jeff Davis	0.005474652	0.006306673	0.007080324	0.007618598	0.004502096
Jefferson	1.039256041	1.589559859	1.196991279	0.951587495	1.064104759
Jim Hogg	0.014382561	0.040993375	0.024677012	0.028876945	0.01459089
Jim Wells	0.096502347	0.254214573	0.136816853	0.16230774	0.198564585
Johnson	0.447715214	0.552575859	0.620569591	0.606731821	0.381385602
Jones	0.038972102	0.059449669	0.04612623	0.047203711	0.051999439
Karnes	0.032476751	0.090612053	0.029883133	0.030755263	0.060365391
Kaufman	0.341005888	0.366158021	0.489583594	0.372258051	0.305287222
Kendall	0.154960499	0.081708515	0.068616671	0.079819738	0.06194395
Kenedy	0	0.000927452	0	0.001018154	0.002984064
Kent	0.002319768	0.002875101	0.001353591	0.002878917	0.001149253
Kerr	0.21063493	0.183635482	0.158057825	0.164150949	0.156987026
Kimble	0.012990701	0.023000808	0.012702935	0.015219642	0.016516818
King	0.000371163	0	0.000520612	0.000631957	0.000232698
Kinney	0.003247675	0.020682178	0.016451342	0.013130672	0.023553705
Kleberg	0.136866309	0.186046857	0.151706358	0.119369742	0.182524228
Knox	0.010206979	0.023093553	0.009995752	0.012867356	0.017705887
La Salle	0.153104685	0.051473582	0.023635788	0.029315804	0.033401926
Lamar	0.023197679	0.323216997	0.165346394	0.172313733	0.213370209
Lamb	0.04268373	0.070486347	0.061119857	0.061984494	0.069352762
Lampasas	0.013918608	0.066220068	0.08236083	0.071832498	0.073922468
Lavaca	0.034796519	0.063344967	0.066117733	0.053400405	0.040870217
Lee	0.043147684	0.043033769	0.046542719	0.052838665	0.048371404
Leon	0.04778722	0.058985943	0.049666392	0.058298075	0.066610947
Liberty	0.221769816	0.381646468	0.405973295	0.298986094	0.276811037
Limestone	0.059850013	0.065570851	0.059141532	0.07722169	0.091089152
Lipscomb	0.005567443	0.008996284	0.005830855	0.01191942	0.009466978
Live Oak	0.032940705	0.033295524	0.020407993	0.036319999	0.036750716

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Llano	0.075160482	0.063901438	0.042481945	0.059456664	0.062066356
Loving	0	0.000463726	0.000624734	0.000351087	0.000209912
Lubbock	1.40485147	1.257068343	0.977709473	0.897555132	1.272125138
Lynn	0.015774422	0.03106964	0.015201873	0.028122107	0.026810445
Madison	0.016702329	0.048969462	0.030924357	0.03616201	0.054999742
Marion	1.15802816	0.062788496	0.040399497	0.035916249	0.053139396
Martin	0.000371163	0.01196413	0.014056526	0.022785577	0.016182007
Mason	0.029229076	0.016508644	0.012182323	0.01794057	0.014606359
Matagorda	0.056138384	0.179740184	0.17638337	0.160727846	0.161557128
Maverick	0.004639536	0.485150103	0.248748449	0.342591159	0.390164692
McCulloch	0.00649535	0.032831798	0.013848281	0.029473794	0.040673421
McLennan	0.127587237	1.023164967	0.869838652	0.78127496	1.171809045
McMullen	0.173054689	0.00231863	0.000312367	0.002598047	0.002951167
Medina	0.146145381	0.214890612	0.178569941	0.141066948	0.180973905
Menard	0.005103489	0.014931976	0.010308119	0.010076211	0.010416522
Midland	0.433796606	0.416054935	0.304037451	0.516923645	0.313585027
Milam	0.0839756	0.159892712	0.102768823	0.081083653	0.108078261
Mills	0.013918608	0.015952173	0.015826607	0.016466003	0.018003724
Mitchell	0.01939326	0.032182582	0.017596688	0.022627588	0.022853562
Montague	0.074696528	0.075123606	0.063098183	0.082452894	0.071813373
Montgomery	1.576978252	1.084376794	1.6411775	1.555791486	1.306767784
Moore	0.031084891	0.056110842	0.062056959	0.094424977	0.075446138
Morris	0.039436055	0.073546938	0.060286878	0.045992459	0.058196747
Motley	0.002783722	0.00250412	0.004060774	0.005757835	0.006876738
Nacogdoches	0.338686121	0.323216997	0.246353633	0.258909459	0.368747014
Navarro	0.165167478	0.247258684	0.199915036	0.187937126	0.219170873
Newton	0.038044194	0.084490871	0.071219732	0.055805354	0.052541041
Nolan	0.039900009	0.083099693	0.056850838	0.059737534	0.066758911
Nueces	1.570946855	1.906841164	1.38805591	1.264739969	1.438810069
Ochiltree	0.033404658	0.027638067	0.038212926	0.045939796	0.053698891
Oldham	0.004639536	0.001298433	0.00645559	0.005687617	0.007997172
Orange	0.25981401	0.461778315	0.344645192	0.289734939	0.281220408
Palo Pinto	0.109493047	0.112128938	0.101935844	0.115490225	0.101865368
Panola	0.050106988	0.102576183	0.074447526	0.074676306	0.067253195
Parker	0.392040783	0.291961867	0.381816894	0.351772096	0.294079952
Parmer	0.025053494	0.042106318	0.017804933	0.039409569	0.045736572

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Pecos	0.034796519	0.055090645	0.022594564	0.051381652	0.053538882
Polk	0.141041891	0.284820487	0.230318781	0.17844021	0.19208887
Potter	0.502461738	0.59672257	0.363178982	0.550873804	0.621797789
Presidio	0.025053494	0.070857327	0.030820235	0.038724949	0.042395914
Rains	0.027837215	0.030976894	0.051124106	0.043833271	0.025845361
Randall	0.401783809	0.315333655	0.27811097	0.319577375	0.271716411
Reagan	0.006031397	0.011685894	0.001978326	0.015553175	0.007105335
Real	0.01159884	0.012706091	0.014368893	0.015272305	0.016117915
Red River	0.034332566	0.070393601	0.048937535	0.044096587	0.049019126
Reeves	0.025053494	0.058707707	0.062056959	0.054787201	0.066107717
Refugio	0.012526747	0.042477298	0.023323421	0.024470797	0.025476628
Roberts	0.003711629	0.000649216	0.002394816	0.002756037	0.001756461
Robertson	0.073768621	0.112685409	0.069345528	0.051258771	0.078464216
Rockwall	0.250534938	0.12270189	0.252392733	0.212671239	0.114537784
Runnels	0.023661633	0.047671029	0.011453466	0.032405374	0.049719619
Rusk	0.104853511	0.148485054	0.130985998	0.183987392	0.172071501
Sabine	0.044539545	0.043868476	0.043939659	0.046536645	0.059802425
San Augustine	0.02969303	0.05073162	0.035713988	0.033177766	0.052197866
San Jacinto	0.064953503	0.141343674	0.16732472	0.106853473	0.107914245
San Patricio	0.211098883	0.305502665	0.252392733	0.235088174	0.248493324
San Saba	0.020877912	0.022166101	0.015201873	0.014903663	0.024171653
Schleicher	0.008815118	0.008254322	0.008121548	0.014886109	0.017328044
Scurry	0.058922106	0.082264986	0.032902683	0.04864317	0.057036521
Shackelford	0.008351165	0.006770399	0.006767957	0.012586486	0.009427884
Shelby	0.075160482	0.160541929	0.094126663	0.117684522	0.146991074
Sherman	0.002319768	0.004544514	0.010203997	0.013113117	0.011969524
Smith	0.882903681	0.800669249	0.833604052	0.763439716	0.768431127
Somervell	0.024125587	0.018920019	0.008017426	0.03447679	0.019730038
Starr	0.112276769	0.639385359	0.297581861	0.427343676	0.561697876
Stephens	0.044539545	0.039138471	0.017284321	0.040849028	0.032253955
Sterling	0.003247675	0.001762159	0	0.0046168	0.004210548
Stonewall	0.001763024	0.003338827	0.004789631	0.004564137	0.005614492
Sutton	0.004082792	0.008068832	0.00301955	0.019432692	0.005251071
Swisher	0.016238376	0.030327678	0.035922233	0.030474393	0.033910049
Tarrant	7.594456311	5.972233944	8.143309927	6.745268131	6.15763538
Taylor	0.500605923	0.497299724	0.409825824	0.399590211	0.500438995

County	*Housing Need: Cost Burden > 50% (Own or Rent) (% of total)*	*Food Need: Food Stamp/SNAP Recipients (% of total)*	*Employment Need: Unemployment (Civilian, Age 16+) (% of total)*	*Health Care Need: Uninsured (% of total)*	*Income Need: Income Past 12mo Below Poverty (% of total)*
Terrell	0.001855814	0	0	0.003826853	0.003778003
Terry	0.030156983	0.063437712	0.033319173	0.054594103	0.043203599
Throckmorton	0.002319768	0.005379221	0.000520612	0.006091368	0.0037955
Titus	0.064953503	0.144404265	0.11255633	0.147140761	0.144757895
Tom Green	0.387401247	0.488210695	0.394832196	0.37032707	0.392616729
Travis	5.959947815	3.521813206	4.494444028	3.716120497	4.16839027
Trinity	0.039436055	0.038118274	0.041440721	0.053031763	0.056130892
Tyler	0.04778722	0.15414251	0.094334908	0.072113368	0.089537012
Upshur	0.092326764	0.174639198	0.139107546	0.146298151	0.129138412
Upton	0.006031397	0.013819034	0.005101998	0.0130429	0.011735615
Uvalde	0.093718625	0.185675876	0.128903549	0.122389094	0.16994654
Val Verde	0.12665933	0.260243011	0.217199357	0.219745651	0.227957138
Van Zandt	0.184653529	0.189663919	0.172947331	0.209002374	0.206107498
Victoria	0.321983791	0.43757182	0.336940134	0.332620275	0.337004537
Walker	0.32569542	0.210995314	0.129736529	0.140540317	0.26021552
Waller	0.180477946	0.139952496	0.161389743	0.194116265	0.180725086
Ward	0.017630236	0.052957505	0.023948155	0.037197718	0.05523393
Washington	0.130370959	0.111665212	0.066325978	0.094091444	0.115341136
Webb	0.841611812	1.884767808	0.746557713	1.554299365	1.770454735
Wharton	0.121091887	0.216745516	0.14962391	0.170804057	0.175855422
Wheeler	0.009743025	0.024206495	0.012911179	0.025172972	0.016127839
Wichita	0.444467539	0.521413474	0.374528325	0.379051593	0.376541403
Wilbarger	0.040363962	0.060469866	0.028633664	0.035723151	0.064366539
Willacy	0.051498848	0.175844886	0.051540595	0.121406049	0.174373594
Williamson	1.327835174	0.920774274	1.731035143	1.062443365	0.66995313
Wilson	0.100677929	0.141065438	0.123489184	0.100586562	0.105649685
Winkler	0.014382561	0.035428664	0.011141098	0.030491947	0.025089816
Wise	0.169807014	0.182058813	0.311117775	0.222466579	0.147121961
Wood	0.135938402	0.139025044	0.143793055	0.152740606	0.14960107
Yoakum	0.009743025	0.011778639	0.0362346	0.031404775	0.021813459
Young	0.058922106	0.076607529	0.040920109	0.073552826	0.064365794
Zapata	0.028301169	0.133460332	0.038004681	0.082417785	0.10883115
Zavala	0.038508148	0.125113265	0.050707616	0.053277524	0.096235197