

## 2015 REGIONAL ALLOCATION FORMULA METHODOLOGY

### *Legislative Requirement*

Sections 2306.111 and 2306.1115 of the Texas Government Code require that TDHCA use a Regional Allocation Formula (“RAF”) for the HOME Investment Partnerships (“HOME”) Program, Housing Trust Fund (“HTF”) Program and Housing Tax Credit (“HTC”) Program. The RAF presented below analyzes housing need and availability in the State’s urban and rural areas and allocates funding accordingly.

Texas Government Code §2306.1115 states:

(a) To allocate housing funds under Section 2306.111(d), the department shall develop a formula that:

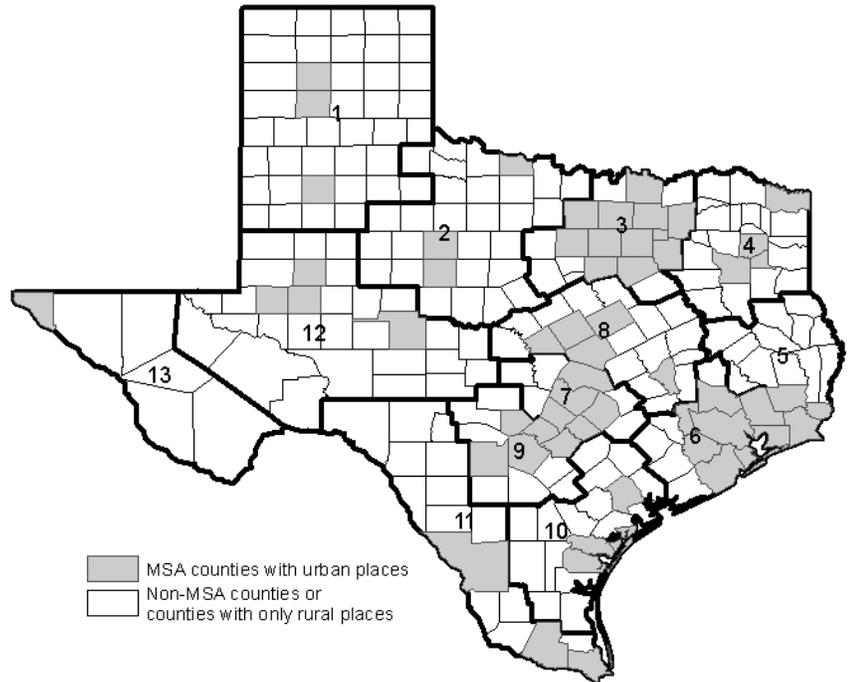
(1) includes as a factor the need for housing assistance and the availability of housing resources in an urban area or rural area;

(2) provides for allocations that are consistent with applicable federal and state requirements and limitations; and

(3) includes other factors determined by the department to be relevant to the equitable distribution of housing funds under Section 2306.111(d).

(b) The department shall use information contained in its annual state low income housing plan and other appropriate data to develop the formula under this section.

The methodology below outlines the need for housing assistance and the availability of housing assistance in urban and rural areas, in keeping with the statutory requirements.



## **Methodology**

### *Affordable Housing Need*

Affordable housing need will be measured by variables that relate to the types of assistance available through TDHCA programs.

HTC and HOME both offer assistance for reduced-rent apartments, which is a multifamily activity. HOME also offers Tenant-Based Rental Assistance, which is a single-family activity. Therefore, people in need of rental assistance should be included in the analysis. The column on the RAF table for renters with cost burden measures the number of people in Texas that pay over 30% of their income on rent. The column for renters experiencing overcrowding measures the number of units with more than one person per room, including the kitchen and bathroom. Both rent burden and overcrowding will be used as variables in the RAF.

HOME also offers homebuyer assistance and single-family development programs, which are single-family activities. For single-family development, typically the homes are built by nonprofits or units of local government and the homes are purchased by or leased to low-income homeowners. HTF offers the Bootstrap Loan Program for potential homeowners who use sweat equity, along with low-interest loans, to build their homes. Qualified eligible households who are ready for homeownership are measured, broken out in different income levels. In addition, areas with high numbers of homeowners experiencing cost burden or overcrowding may signify a need for homebuyer assistance. Therefore, factors of income, homeowner cost burden, and homeowner overcrowding are incorporated in the RAF.

HOME offers homeowner rehabilitation assistance, which is a single-family activity. Data regarding units lacking kitchen facilities and plumbing were found to be a complete dataset for use to measure rehabilitation need for single family housing. The data for lack of kitchen facilities and lack of plumbing facilities did not differentiate between owners and renters. Therefore, both owner and renter data will be included. Age of housing stock was considered, but there is no data to substantiate the correlation between a specific unit age and need for rehabilitation. Therefore, numbers of units with substandard conditions and numbers of units built since 1964 or 1978 could not be included in the RAF.

Income is the primary measurement of eligibility for housing assistance through TDHCA. HTC serves households who earn 0-60% Area Median Family Income ("AMFI"). HOME and HTF serve households who earn 0-80% AMFI. While eligibility for housing assistance is measured by AMFI, the AMFI datasets showing how many households are in each AMFI category are available only every other year, while the measurement of people in poverty is measured yearly. In order to use the most up-to-date data, the measurement of people in poverty will be used. The percentage of people at 200% poverty is strongly linked with the percentage of people earning 0-80% AMFI. People at or below 200% of the poverty level will qualify for a majority of housing assistance offered through TDHCA's HOME, HTC and HTF programs.

Because of the differences between the factors for the HOME for single family activities and HOME multifamily activities, HOME will have two RAFs formulated through this methodology: one for single family Activities and one for multifamily activities.

The extent of Texans needing affordable housing is measured using five variables:

1. Cost burden (renters for HTC and HOME; owners for HOME and HTF)
2. Overcrowding (renters for HTC and HOME; owners for HOME and HTF);
3. Lack of Kitchen (owners and renters for HOME);
4. Lack of Plumbing (owners and renters for HOME); and
5. People at or below 200% of the poverty rate.

### *Housing Availability*

The extent of additional affordable housing needed to address Texan’s needs is determined by:

1. Vacant units (rental units for HOME and HTC; homes for sale for HOME and HTF)

Affordable housing availability will be measured by variables that relate directly to housing resources. In order to take into account both market-rate and subsidized units, vacancies will be used. High numbers of vacancies indicate the market has an adequate supply to oversupply of housing. Vacancies offer a direct measure of housing availability. Owner and rental vacancies are suitable to measure availability for both single and multifamily activities.

### *Urban and Rural Areas*

In TDHCA’s governing statute (updated per House Bill 429, 83 Regular Session), §2306.004 states:

28-a) "Rural area" means 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.

The Texas Government Code §2306.004(28-a)(B) is applied to “census-designated places” (“places”) which correlates to cities, towns and other areas similar to incorporated cities and towns, as designated by the census. The requirement regarding population of 25,000 and the requirement regarding boundaries can be applied to places. The RAF is a macro view compared to one city, town, etc, so data is used from each county. County data is more complete than adding together all the cities, towns, etc. If

the RAF only added together the cities, towns, etc, then people who do not live in cities, towns, etc, and units that do not exist in cities, towns, etc, will be excluded. Limiting the data for the RAF to only cities, towns, etc, in each region substantially hinders its decision-making capabilities as an allocation tool. Using the data from counties instead of cities, towns, etc, to allocate for urban and rural areas allows for a more complete picture of the State’s demographics. According to Texas Government Code §2306.1115(b), TDHCA must use appropriate data to develop the formula, and data from counties is the most appropriate data.

Using Metropolitan Statistical Area (“MSA”) data, as provided by the U.S. Office of Management and Budget, the RAF allocation process accounts for the fact that even though a county may be part of an MSA, all of its places meet the definition of rural per §2306.004(28-a). If an MSA county has no places designated as urban, the need and availability of the whole county will be counted toward the rural allocation (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 allocation process refers to “MSA counties with urban places” and “Non-MSA counties and counties with only rural places.” The need and availability of “MSA counties with urban places” directs the allocation toward the urban places, and the need and availability of “Non-MSA counties and counties with only rural places” directs the allocation toward the rural places.

Note that the RAF does not state that all places in an MSA county with urban places are urban for designations of specific sites. The rural and urban designation for site-specific applications is made at the place-level.

An example of the variables used in the RAF is in Table 1 below. While HTC, HOME and HTF programs use different variables, only one example is used in this Methodology: the HTC Program. Note that sample numbers are used for clarity.

*Table 1: Example of variables used, by Sub-region*

<b>Region (MSA Counties with urban places)</b>	<b>Column A: People at 200% Poverty</b>	<b>Column B: HH at 200% Poverty</b>	<b>Column C: Cost Burden, Renters</b>	<b>Column D: Overcrowded Renters</b>	<b>Column E: Vacancies, Rental</b>
1	150,000	53,571	25,000	4,000	6,000
2	100,000	35,714	20,000	2,000	4,000
3	150,000	53,571	25,000	4,000	6,000
4	100,000	35,714	20,000	2,000	4,000
5	150,000	53,571	25,000	4,000	6,000
6	100,000	35,714	20,000	2,000	4,000
7	150,000	53,571	25,000	4,000	6,000
8	100,000	35,714	20,000	2,000	4,000
9	150,000	53,571	25,000	4,000	6,000
10	100,000	35,714	20,000	2,000	4,000
11	150,000	53,571	25,000	4,000	6,000
12	100,000	35,714	20,000	2,000	4,000
13	150,000	53,571	25,000	4,000	6,000

Region (Non-MSA counties and counties with only rural places)	Column A: People at 200% Poverty	Column B: HH at 200% Poverty	Column C: Cost Burden, Renters	Column D: Overcrowded Renters	Column E: Vacancies, Rental
1	40,000	14,286	7,000	700	700
2	25,000	8,929	2,000	400	500
3	40,000	14,286	7,000	700	700
4	25,000	8,929	2,000	400	500
5	40,000	14,286	7,000	700	700
6	25,000	8,929	2,000	400	500
7	40,000	14,286	7,000	700	700
8	25,000	8,929	2,000	400	500
9	40,000	14,286	7,000	700	700
10	25,000	8,929	2,000	400	500
11	40,000	14,286	7,000	700	700
12	25,000	8,929	2,000	400	500
13	40,000	14,286	7,000	700	700

Regions	Column A: People at 200% Poverty	Column B: HH at 200% Poverty	Column C: Cost Burden, Renters	Column D: Overcrowded Renters	Column E: Vacancies, Rental
Total	2,080,000	742,857	356,000	47,300	73,900

### Weights

To allocate funds, the RAF will use each sub-region’s ratios of the State’s total. In order to account for the amount of population that the variables affect, all the variables that measure need will be added together<sup>1</sup> (i.e., compounded) before taking the percentage of each sub-region’s need over the amount of the total need in the State.

Examples of how the weights work in the RAF are in Tables 2 through 4 on the following pages. Building off the usefulness of Table 1, which showed the HTC program, Tables 2 through 4 also are examples of the HTC program RAF. Note that the column header letters will also build off the previous table, so if the letters are not in alphabetical order, the column header letter refers to a previous table.

Table 2 (below) shows only Region 1 in MSA counties and the total of all the regions, in order to simplify the example. Table 2 illustrates how the Compounded Need Variable is derived: Households at 200% of

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<sup>1</sup> Note that in order for *people* in poverty to be combined with *households* with cost burden and *households* with overcrowding, the number of people in poverty is divided by the average size of a household in Texas: 2.80 per the 2008-2012 American Community Survey 5-year estimates.

poverty, cost-burdened renters, and over-crowded renters are added together, thereby compounding the need. This compounding balances the relative importance of the variables; variables with very high or very small numbers are combined with the overall total of need, preventing these variables from having a disproportionate or arbitrary amount of weight for their size.

*Table 2: Compounded Need Variables*

Area	Column B: HH at 200% Poverty	Column C: Cost Burden, Renters	Column D: Overcrowded Renters	Column E: Compounded Need Variables
Region 1 (MSA Counties with urban places)	53,571	25,000	4,000	82,571
<b>Total of all Regions</b>	<b>742,857</b>	<b>356,000</b>	<b>47,300</b>	<b>1,146,157</b>

*Note: Columns B, C and D are from Table 1.*

In order to apply weights, percentages of need and availability variables must be taken from the state as a whole. These percentages illustrate the relative need of the sub-region. Table 3 (below) demonstrates how the percentages are derived.

*Table 3: Percentages Taken*

Area	Column E: Compounded Need Variables	Column F: Percent of State's Total Need	Column G: Unoccupied Units, Rental	Column H: Percent of State's Total Availability
Region 1 (MSA Counties with urban places)	82,571	7.2%	6,000	8.1%
<b>Total of all Regions</b>	<b>1,146,157</b>		<b>73,900</b>	

*Note: Column E is from Table 2.*

A successful allocation formula will provide more funding for high housing need and remove funding for an abundance of housing resources. In order to get the right relationship between housing and need, the housing availability variable will have negative weight. If the weights were equal, a RAF with four variables would have each variable would receive 50% of the weight. Because the availability variable should be negative, the need variables are weighted at 50% each and the availability variable is weighted at -50%, giving the appropriate relationship between funding and current availability of resources. The compounded need variable will receive 150% weight (50% per variable). Table 4 shows the application of the weights based on a statewide availability of \$40,000,000.<sup>2</sup>

<sup>2</sup> Although the *Attachment B – Sample Allocation for the HTC Program* is based on a statewide availability of \$50,000,000, the Methodology example is based on a statewide availability of \$40,000,000 to show a proportional adjustment when initial HTC allocations fall under \$500,000.

Note that for the HOME Single Family RAF, there are six variables (HOME has lack of kitchen and lack of plumbing as two separate variables because of HOME’s homeowner rehabilitation activity). Therefore, the need variables will each have 25% weight and the availability variable will have -25% weight, in order for all the variables to be weighted equally.

*Table 4: Weight Application*

Area	Column F: Percent of State's Total Need	Column I: Weight of Need Variables	Column J: Need Variable Allocation*	Column H: Percent of State's Total Availability	Column K: Weight of Availability Variable	Column L: Availability Variable Allocation~	Column M: Total Allocation <sup>+</sup>
Region 1 (MSA Counties with urban places)	7.2%	150.0%	\$ 4,322,519	8.1%	-50%	\$ (1,623,816)	\$ 2,698,703

*Note: Column F and H taken from Table 3.*

\*Column J is calculated as follows: Column F x Column I x statewide availability of funds.

~Column L is calculated as follows: Column H x Column K x statewide availability of funds.

<sup>+</sup>Column M is calculated as follows: Column J + Column L.

#### *Exceptions to the RAF*

According to Texas Government Code §2306.111(d-1), there are certain instances when the RAF would not apply to HOME, HTC, and HTF funds. For instance, specific set-asides will be subject to the RAF. This includes set-asides for contract-for-deed conversions and set-asides mandated by state or federal law, if these set-asides are less than 10 percent of the total allocation of funds or credits. Set-asides for funds allocated to serve persons with disabilities will not be subject to the RAF. The total amount available through the RAF will not include funds for at-risk development, with instances mentioned in this paragraph.

Also in §2306.111(d-1), specifically for HTC, 5% of HTC funds must be allocated to developments that receive federal assistance through USDA. Any developments that receive federal assistance through USDA and HTC for rehabilitation compete for funding separately under the “USDA Set-Aside.” This funding is taken from the total tax credit ceiling prior to applying the RAF to allocate funds between each sub-region.

Finally, pursuant to §2306.111(d-1) specifically for HTF, funds that do not exceed \$3 million for each programmed activity will be subject to the RAF.

#### *HOME, HTC and HTF Data Differences*

Even though the RAF applies to HOME, HTC and HTF, there are some differences between the programs that need to be addressed within the formulas. For example, HOME and HTF serve homeowners and those wanting to buy or build a home, while HOME and HTC serve renters. Therefore, renters’ needs would be counted for HOME and HTC; homebuyer needs would be counted for HOME and HTF.

Because HOME and HTC fund rehabilitation, substandard housing units would ideally be included in the RAF. However, at this time, staff has not identified a data source that would provide an estimate of these units that is accurate at the regional level.

In addition, according to §2306.111(c)(1) and (2), 95 percent of the funds for HOME must be spent outside Participating Jurisdictions (PJs). PJs are areas that receive funding directly from HUD. The other 5 percent of State HOME funds must be spent on activities that serve people with disabilities in any area of the State; this portion of HOME is not subject to the RAF because it is set-aside for persons with disabilities (see *Exceptions to the RAF* above). Because 95 percent of funds cannot be spent within a PJ, the housing need and availability in those jurisdictions should not be counted in HOME's RAF.

The PJ designations are subject to change yearly depending on HUD's funding. According to HUD's 2014 allocation, thirty-three of the PJs are cities and eight of the PJs are counties. These PJs will be subtracted from the HOME version of the RAF.

#### *HTC \$500,000 Adjustment*

Texas Government Code §2306.111(d-3) is a special requirement regarding funding and the RAF that applies only to HTC. This provision requires that TDHCA allocate at least 20 percent of credits to rural areas and that \$500,000 be available for each urban and rural sub-region, which number 26 in total. The overall state rural percentage of the total tax credit ceiling amount will be adjusted to a minimum of 20 percent only at the time of actual award, if needed. Usually, the 20 percent allocation to rural areas occurs naturally, but, if not, one more deal for rural areas will be awarded from the statewide collapse of the RAF to ensure the requirement is met.

For the HTC RAF, the regional amount of rural and urban funding is adjusted to a minimum of \$500,000, if needed. This is done as a final adjustment to the sub-regional allocation amounts available for award. The process proportionately takes funds from sub-regions with initial funding amounts in excess of \$500,000 and reallocates those funds to those sub-regions with initial funding amounts that are less than \$500,000. The process is complete when each sub-region has at least \$500,000.

Tables 5 through 6 below show the process of determining the amount to adjust from sub-regions with more than \$500,000. These tables build from the previous tables included in this methodology and, for ease of explanation, Region 1 and 2's "MSA counties with urban places" and Region 1 and 2's "Non-MSA counties and counties with no urban places" are included. Again, the column header letters build off previous tables, so if the letters are not in alphabetical order, the column letter refers to previous tables.

These four sub-regions are examined below because the most common movement for funds during the \$500,000 adjustment is from MSA counties to Non-MSA counties. The first step in the \$500,000 adjustment process is illustrated in Table 5: the amount over or under \$500,000 is determined for each sub-region.

Table 5: Sub-region amount over/under \$500,000

Area	Column M: Initial Sub-region amount	Column N: Amount needed to reach \$500,000	Column O: Amount over \$500,000 that can be reallocated
Region 1 (MSA Counties with urban places)	\$2,698,703	\$-	\$2,198,703
Region 1 (Non-MSA Counties or Counties with only rural places)	\$961,482	\$-	\$461,482
Region 2 (MSA Counties with urban places)	\$1,938,732	\$-	\$1,438,732
Region 2 (Non-MSA Counties or Counties with only rural places)	\$457,720	\$42,280	\$-

Note: Column M is from Table 4.

Note that Column O above is the amount in Column M (if the amount in Column M is over \$500,000) minus \$500,000; at least \$500,000 is maintained in each sub-region before the adjustment process. Next the amounts in Column N are totaled for the entire state and the amounts in Column O are totaled for the entire state. In this simplified example, the Column N's total would be \$42,280. The Column O total would be \$4,098,917.

The subsequent step in the adjustment process is to determine the percentage to be reallocated. Following the example in Table 5, if only Region 1 and 2 were used in the RAF, the percentages would be seen in Column P in Table 6 below. The proportion of the total amount to be reallocated is in Column Q. Finally, Column M is adjusted by Column Q to equal the final Sub-Amount in Column R.

Table 6: Proportional adjustment

Area	Column P: Proportion of amount available to be reallocated*	Column Q: Amount to be reallocated~	Column R: Final Sub-Amount for Compounded Need†
Region 1 (MSA Counties with urban places)	54%	\$ (22,679)	\$ 2,676,024
Region 1 (Non-MSA Counties or Counties with only rural places)	11%	\$ (4,760)	\$ 956,722
Region 2 (MSA Counties with urban places)	35%	\$ (14,840)	\$ 1,923,892
Region 2 (Non-MSA Counties or Counties with only rural places)	n/a	\$ 42,280	\$ 500,000

\*Column P is calculated as follows: if Column M is over \$500,000, then  $((\text{Column M} - \$500,000) / \$4,098,917)$

~Column Q is calculated as followed: if Column P is a percentage, then  $(\text{Column P} * \$42,280)$ ; if Column P is n/a, then Column Q equals Column N.

†Column R is calculated as follows: Column M + Column Q.