

## FINAL 2014 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 Partnership Program (HOME), 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 distributes 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:

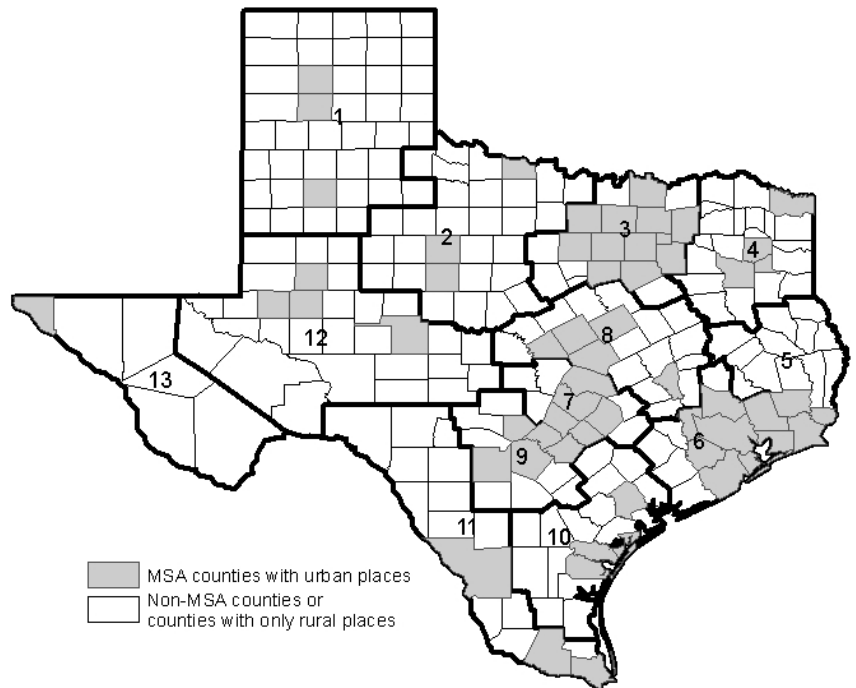
(1) includes as a factor the need for housing assistance and the availability of housing resources in an urban area or rural area;

(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 reduced-rent apartments. HOME offers Tenant-Based Rental Assistance. Therefore people in need of rental assistance should be included. The column 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 a variable in the RAF.

HOME also offers homebuyer assistance and single-family development programs. For single-family development, typically the homes are built by nonprofits or units of local government and the homes are often purchased by 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. Households who are ready to own and qualify for home buying are efficiently measured by an income measurement. In addition, areas with high numbers of homeowners experiencing cost burden or overcrowding may signify a need for homebuyer assistance to reduce the number of future homeowners with cost burden or overcrowding. Therefore, factors of income, homeowner cost burden, and homeowner overcrowding will be included in the RAF.

HOME offers homeowner rehabilitation assistance. However, there is a lack of available data to measure the need for homeowner rehabilitation at the regional level. Units lacking kitchen facilities and plumbing did not have sufficient accuracy and; the margins of error were larger than the estimates in some regions. Age of housing stock was considered, but there is no data to substantiate the correlation between a specific household age and need for rehabilitation. Therefore, numbers of units with substandard conditions and numbers of units over 30 or 50 years of age 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. Therefore, as already determined to measure the need for homebuyer assistance, an income measurement will be used in the RAF. 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, poverty measurements 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.

Need for affordable housing will be determined by three 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); and
3. People at or below 200% of the poverty rate.

#### *Housing Availability*

Need for affordable housing 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.

#### *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.

For the site-level designation, Texas Government Code §2306.004(28-a)(B) in the definition above, is applied at the place-level in order to be able to apply the language regarding population of 25,000 and the language regarding boundaries. For the RAF, which is a more macro view than each individual site, county-level data is a more complete and informative dataset than place-level data. The place-level count excludes people and units not located in any census-designated place. Limiting the data for the RAF to only places in each region substantially hinders its decision-making capabilities as an allocation tool. Using the county-based data to allocate for urban and rural areas allows for a more complete picture of the state's demographic data.

According to Texas Government Code §2306.1115(b), TDHCA must use appropriate data to develop the formula, and county-level data is most appropriate data. During the 2013 Office of Management and Budget update of MSAs, it became apparent that some MSA counties have no urban places per 2306.004 (i.e. the MSA county had no places over 25,000, nor any places touching a boundary of a place with 25,000). Therefore, TDHCA will refine its allocation process to refer 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” will direct the allocation toward the urban places, and the need and availability of “Non-MSA counties and counties with only rural places” will direct the allocation toward the rural places.

Note that the RAF is not stating that all places in an MSA county with urban places are urban for designations for specific sites. The rural and urban designation for site-specific applications applying for funding will still be at the place-level.

An example of the variables used in the RAF is in Table 1 below. While HTC, HOME and HTF 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	53,763	25,000	4,000	6,000
2	100,000	35,842	20,000	2,000	4,000
3	150,000	53,763	25,000	4,000	6,000
4	100,000	35,842	20,000	2,000	4,000
5	150,000	53,763	25,000	4,000	6,000
6	100,000	35,842	20,000	2,000	4,000
7	150,000	53,763	25,000	4,000	6,000
8	100,000	35,842	20,000	2,000	4,000
9	150,000	53,763	25,000	4,000	6,000
10	100,000	35,842	20,000	2,000	4,000
11	150,000	53,763	25,000	4,000	6,000
12	100,000	35,842	20,000	2,000	4,000
13	150,000	53,763	25,000	4,000	6,000

<b>Region (Non-MSA counties and counties with only rural 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	40,000	14,337	7,000	700	700
2	25,000	8,961	2,000	400	500
3	40,000	14,337	7,000	700	700
4	25,000	8,961	2,000	400	500
5	40,000	14,337	7,000	700	700
6	25,000	8,961	2,000	400	500
7	40,000	14,337	7,000	700	700

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
8	25,000	8,961	2,000	400	500
9	40,000	14,337	7,000	700	700
10	25,000	8,961	2,000	400	500
11	40,000	14,337	7,000	700	700
12	25,000	8,961	2,000	400	500
13	40,000	14,337	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	745,520	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 2-4 on the following pages. Building off the usefulness of Table 1 which showed the HTC program, Tables 2-4 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 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.

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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: 2.79 per the 2007-2011 American Community Survey 5-year estimates.

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)	53,763	25,000	4,000	82,763
<b>Total of all Regions</b>				
	745,520	356,000	47,300	1,148,820

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)	82,763	7.2%	6,000	8.1%
<b>Total of all Regions</b>				
	1,148,820		73,900	

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, 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.

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%	\$ 4,322,529	8.1%	-50%	\$ (1,623,816)	\$ 2,698,713

Note: Column F and H taken from Table 3.

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

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

<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 not be run through 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 run through the RAF. The total amount available through the RAF will not include funds for at-risk development, with stipulations 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 not run through 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 2013 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 \$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 5-6 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)	\$2,698,713	\$-	\$2,198,713
Region 1 (Non-MSA Counties or Counties with only rural places)	\$961,488	\$-	\$461,488
Region 2 (MSA Counties with urban places)	\$1,938,415	\$-	\$1,438,415
Region 2 (Non-MSA Counties or Counties with only rural places)	\$458,017	\$41,983	\$-

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 \$41,983. The Column O total would be \$4,098,617.

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%	\$ (22,522)	\$ 2,676,191
Region 1 (Non-MSA Counties or Counties with only rural places)	11%	\$ (4,727)	\$ 956,761
Region 2 (MSA Counties with urban places)	35%	\$ (14,734)	\$ 1,923,681
Region 2 (Non-MSA Counties or Counties with only rural places)	n/a	\$ 41,983	\$ 500,000

\*Column P is calculated as follows: if Column M is over \$500,000, then  $((\text{Column M} - \$500,000) / \$4,098,617)$

~Column Q is calculated as followed: if Column P is a percentage, then  $(\text{Column P} * \$41,983)$ ; if Column P is n/a, then Column Q equals Column N.

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