

## 2016 SINGLE FAMILY REGIONAL ALLOCATION FORMULA METHODOLOGY

**IMPORTANT NOTE:** This document presents the methodology for applying the Regional Allocation Formula (“RAF”) to Single Family activities funded through the HOME Investment Partnerships Program (“HOME”) and Housing Trust Fund (“HTF”) Program.

### Legislative Requirement

Sections 2306.111 and 2306.1115 of the Texas Government Code require that the Texas Department of Housing and Community Affairs (“TDHCA”) use a RAF for the HOME Program, HTF Program, and Housing Tax Credit (“HTC”) Program. The Draft of the RAF presented below analyzes housing need, availability, and an additional population factor relevant to the equitable distribution of housing funds in the State’s urban and rural areas for single family activities.

Section 2306.1115 of the Texas Government Code states:

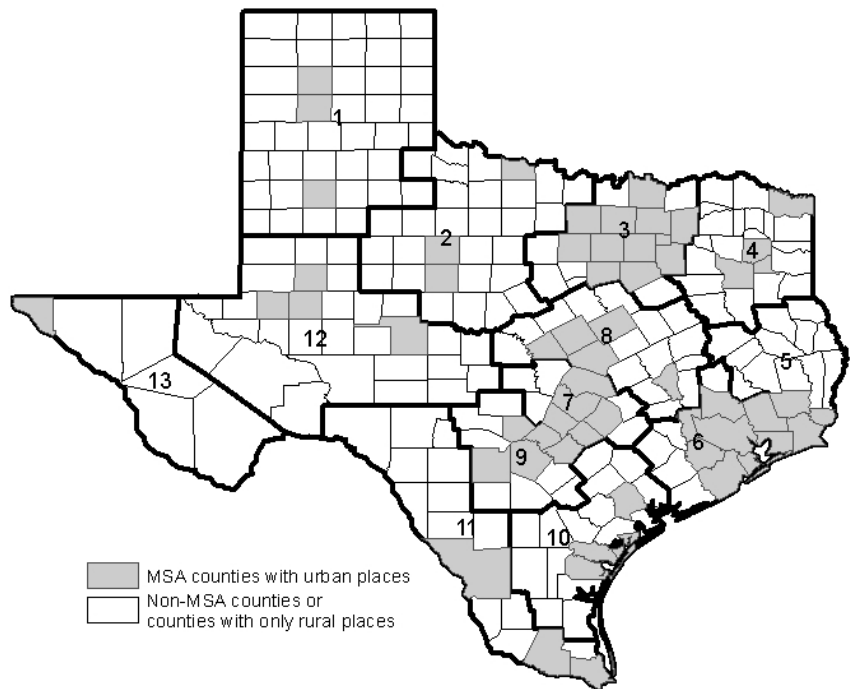
(a) To allocate housing funds under Section 2306.111(d), the department shall develop a formula that:

(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 in urban and rural areas, in keeping with the statutory requirements. The methodology also includes a regional coverage factor that includes inverse population density for urban and rural areas of TDHCA's 13 Service Regions, in keeping with the statutory requirements to include other factors necessary for equitable distribution of funding.

## **Methodology**

### *Affordable Housing Need*

Affordable housing need for the HOME Single Family ("SF") RAF and HTF RAF will be measured by variables that relate to the types of assistance available through the HOME SF and HTF programs.

HOME offers Tenant-Based Rental Assistance through which a portion of a recipient's rent is paid to the landlord. HTF offers the Amy Young Barrier Removal Program, which can serve both renters and homeowners. Therefore, renters who need 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 and are "cost burdened." 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 SF 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 low-income homeowners. HTF offers the Amy Young Barrier Removal Program, which can be used for homeowners as mentioned above, and the Bootstrap Loan Program for potential homeowners who use sweat equity, along with low-interest loans, to build and become owners of their homes. Therefore, homeowners who need assistance should be included in the analysis. Areas with high numbers of homeowners experiencing cost burden or overcrowding may signify a need for homebuyer assistance or homeowner assistance. Therefore, factors of income, homeowner cost burden, and homeowner overcrowding are incorporated in the SF RAF.

HOME offers homeowner rehabilitation assistance, which is a single family activity. HTF has many activities that are often paired with rehabilitation, such as the Contract for Deed Conversion Program or Amy Young Barrier Removal. Data regarding units lacking kitchen facilities and plumbing were found to be a complete dataset for use in assessing 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.

Income is the primary measurement of eligibility for housing assistance through TDHCA. HOME and HTF serve households who earn 0-80% Area Median Family Income ("AMFI"). While eligibility for housing assistance is measured by Area Median Income ("AMI"), the AMI datasets showing how many households are in each AMI category lag behind by a full year from the datasets used to calculate poverty. 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 and HTF SF programs. 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: 2.82 per the 2009-2013 American Community Survey five-year estimates.

The extent of Texans needing affordable housing is measured using five variables for single family activities:

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

#### *Housing Availability*

The extent of additional affordable housing to address Texan's needs is determined by vacant units for rent and homes for sale

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. A high number of vacancies indicate that a market has an adequate supply or possibly an oversupply of housing. Vacancies offer a direct measure of housing availability for single-family activities.

#### *Regional Coverage Factor*

As stated in §2306.1115(a)(3) of the Texas Government Code, TDHCA shall develop a formula that "includes other factors determined by the department to be relevant to the equitable distribution of housing funds..." As such, the Draft of the 2016 HOME SF RAF methodology proposes to add a Regional Coverage Factor which measures inverse population density. Population density is the number of people divided by the land in which they live. Inverse population density divides the land area by the total population. An inverse density population conveys the amount of land per person in each subregion. A higher number indicates greater population dispersion and hence may at some point indicate an increasing challenge in reaching and serving Texans in that area.

Unlike TDHCA's multifamily programs which focus development primarily in one project area, single family programs are typically scattered site predominately in rural areas of the state. The Regional

Coverage Factor takes into account the smaller populations of rural areas as well as scattered locations of single family projects, instead of relying solely on population as an absolute.

### *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.

Section 2306.004(28-a)(B) of the Texas Government Code 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 for the reasons described above, 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.

### *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 and HTF funds. For instance, specific set-asides will not 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% 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.

Finally, pursuant to §2306.111(d-1) specifically for HTF, programmed activities that do not exceed \$3 million are not subject to the RAF.

### *Participating Jurisdictions (“PJs”)*

In addition, according to §2306.111(c)(1) and (2), 95% of the funds for HOME must be spent outside Participating Jurisdictions. PJs are areas that receive funding directly from HUD. Because 95 percent of funds cannot be spent within a PJ, the housing need and availability in the PJs will not be counted in the HOME RAF.

The PJ designations are subject to change yearly depending on HUD funding. According to HUD’s 2015 allocation, 33 of the PJs are cities and eight of the PJs are counties. These PJs will be subtracted from the HOME SF version of the RAF.

Example of the need, availability and inverse population density variables used in the HOME SF RAF are in Tables 1, 2, and 3 below. The HTF RAF would be very similar to the HOME SF RAF with the exception that the HTF RAF will include PJs. Note that sample numbers are used for clarity.

Table 1: Example of Need Variables Used, by Sub-region

Region (MSA Counties with urban places)	Column A: People at 200% Poverty without PJs	Column B: Households ("HH") at 200% Poverty without PJs	Column C: Cost Burden, Owners without PJs	Column D: Cost Burden, Renters without PJs	Column E: Over-crowded Owners without PJs	Column F: Over-crowded Renters without PJs	Column G: Units Lacking Plumbing without PJs	Column H: Units Lacking Kitchen without PJs	Column I: Compounded Need Variables
1	150,000	53,191	1,500	15,000	3,000	2,000	4,000	6,000	84,691
2	100,000	35,461	2,500	16,000	3,500	2,500	3,000	5,000	67,961
3	150,000	53,191	1,500	15,000	3,000	2,000	4,000	6,000	84,691
4	100,000	35,461	2,500	16,000	3,500	2,500	3,000	5,000	67,961
5	150,000	53,191	1,500	15,000	3,000	2,000	4,000	6,000	84,691
6	100,000	35,461	2,500	16,000	3,500	2,500	3,000	5,000	67,961
7	150,000	53,191	1,500	15,000	3,000	2,000	4,000	6,000	84,691
8	100,000	35,461	2,500	16,000	3,500	2,500	3,000	5,000	67,961
9	150,000	53,191	1,500	15,000	3,000	2,000	4,000	6,000	84,691
10	100,000	35,461	2,500	16,000	3,500	2,500	3,000	5,000	67,961
11	150,000	53,191	1,500	15,000	3,000	2,000	4,000	6,000	84,691
12	100,000	35,461	2,500	16,000	3,500	2,500	3,000	5,000	67,961
13	150,000	53,191	1,500	15,000	3,000	2,000	4,000	6,000	84,691

Region (Non-MSA counties and counties with only rural places)	Column A: People at 200% Poverty without PJs	Column B: HH at 200% Poverty without PJs	Column C: Cost Burden, Owners without PJs	Column D: Cost Burden, Renters without PJs	Column E: Over-crowded Owners without PJs	Column F: Over-crowded Renters without PJs	Column G: Units Lacking Plumbing without PJs	Column H: Units Lacking Kitchen without PJs	Column I: Compounded Need
1	80,000	28,369	6,000	8,000	2,000	2,000	5,000	5,000	56,369
2	60,000	21,277	9,000	5,000	1,000	1,000	7,000	7,000	51,277
3	80,000	28,369	6,000	8,000	2,000	2,000	5,000	5,000	56,369
4	60,000	21,277	9,000	5,000	1,000	1,000	7,000	7,000	51,277
5	80,000	28,369	6,000	8,000	2,000	2,000	5,000	5,000	56,369
6	60,000	21,277	9,000	5,000	1,000	1,000	7,000	7,000	51,277
7	80,000	28,369	6,000	8,000	2,000	2,000	5,000	5,000	56,369
8	60,000	21,277	9,000	5,000	1,000	1,000	7,000	7,000	51,277
9	80,000	28,369	6,000	8,000	2,000	2,000	5,000	5,000	56,369
10	60,000	21,277	9,000	5,000	1,000	1,000	7,000	7,000	51,277
11	80,000	28,369	6,000	8,000	2,000	2,000	5,000	5,000	56,369
12	60,000	21,277	9,000	5,000	1,000	1,000	7,000	7,000	51,277
13	80,000	28,369	6,000	8,000	2,000	2,000	5,000	5,000	56,369

Regions	Column A Total	Column B Total	Column C Total	Column D Total	Column E Total	Column F Total	Column G Total	Column H Total	Column I Total
Total	2,570,000	911,348	121,500	287,000	62,000	49,000	123,000	149,000	1,702,848

Table 2: Example of Availability Variables Used, by Sub-region

Region (MSA Counties with urban places)	Column J: Unoccupied Units, For Sale without PJs	Column K: Unoccupied Units, For Rent without PJs	Column L: Regional Vacancies
1	1,500	2,000	3,500
2	1,000	3,000	4,000
3	1,500	2,000	3,500
4	1,000	3,000	4,000
5	1,500	2,000	3,500
6	1,000	3,000	4,000
7	1,500	2,000	3,500
8	1,000	3,000	4,000
9	1,500	2,000	3,500
10	1,000	3,000	4,000
11	1,500	2,000	3,500
12	1,000	3,000	4,000
13	1,500	2,000	3,500

Region (MSA Counties with urban places)	Column J: Unoccupied Units, For Sale without PJs	Column K: Unoccupied Units, For Rent without PJs	Column L: Regional Vacancies
1	1,500	2,000	3,500
2	2,000	2,500	4,500
3	1,500	2,000	3,500
4	2,000	2,500	4,500
5	1,500	2,000	3,500
6	2,000	2,500	4,500
7	1,500	2,000	3,500
8	2,000	2,500	4,500
9	1,500	2,000	3,500
10	2,000	2,500	4,500
11	1,500	2,000	3,500
12	2,000	2,500	4,500
13	1,500	2,000	3,500

Region (MSA Counties with urban places)	Column J Total	Column K Total	Column L Total
Total	39,000	61,000	100,000

Table 3: Example of Population Density variables used, by Sub-region

Region (MSA Counties with urban places)	Column M: Land area without PJs	Column N: Population without PJs	Column O: Regional Coverage Factor (Land Area/Total Population)
1	3,000	350,000	0.009
2	2,000	250,000	0.008
3	3,000	350,000	0.009
4	2,000	250,000	0.008
5	3,000	350,000	0.009
6	2,000	250,000	0.008
7	3,000	350,000	0.009
8	2,000	250,000	0.008
9	3,000	350,000	0.009
10	2,000	250,000	0.008
11	3,000	350,000	0.009
12	2,000	250,000	0.008
13	3,000	350,000	0.009

Region (MSA Counties with urban places)	Column M: Land area without PJs	Column N: Total Population without PJs	Column O: Regional Coverage Factor (Land Area/Total Population)
1	15,000	200,000	0.075
2	13,000	300,000	0.043
3	15,000	200,000	0.075
4	13,000	300,000	0.043
5	15,000	200,000	0.075
6	13,000	300,000	0.043
7	15,000	200,000	0.075
8	13,000	300,000	0.043
9	15,000	200,000	0.075
10	13,000	300,000	0.043
11	15,000	200,000	0.075
12	13,000	300,000	0.043
13	15,000	200,000	0.075

Region (MSA Counties with urban places)	Column M Total	Column N Total	Column O Total
Total	216,000	7,150,000	0.893



*Compounded Need*

To allocate funds, the RAF will use each sub-region’s ratios of the State’s total. All the variables that measure need will be added together (i.e., compounded) before taking the percentage of each sub-region’s need over the amount of the total need in the State. Table 1, Column I, illustrates how the Compounded Need Variable is derived: Households at 200% of poverty, cost-burdened owners and renters, over-crowded owners and renters, and units lacking kitchen facilities and plumbing facilities 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.

*Weights*

Building off the usefulness of Tables 1, 2, and 3, which showed the HOME SF Program variables, examples of how the weights work in the RAF are in Tables 4 through 6 on the following pages. 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 4 (below) shows only Region 1 in MSA counties and the total of all the regions, in order to simplify the example.

In order to apply weights, percentages of need, availability, and population density variables must be taken from the state as a whole. These percentages illustrate the relative need of the sub-region. Table 4 (below) demonstrates how the percentages are derived.

*Table 4: Percentages Taken*

Area	Column I: Compounded Need Variables	Column P: Percent of State's Total Need	Column L: Regional Vacancies	Column Q: Percent of State's Total Availability	Column O: Regional Coverage Factor Total	Column R: Percent of State's Total Regional Coverage Factor
Region 1 (MSA Counties with urban places)	84,691	5.0%	3,500	3.5%	0.075	8.4%
Total of all Regions	1,702,848		100,000		0.893	

*Note: Column I is from Table 1, Column L is from Table 2, and Column O is from Table 3.*

A successful allocation formula will provide more funding for areas with high housing need and reduce funding for areas with an abundance of housing resources. In order to get the right relationship between housing and need, the housing availability variable will have negative weight, while the need and regional coverage variables will have positive weight. Because the availability variable should be negative, the need

and inverse population variables are weighted at 20% each and the availability variable is weighted at -20%, giving the appropriate relationship between funding and current availability of resources. The compounded need variable will receive 100% weight (20% per variable). Table 5 shows the application of the weights based on a statewide availability of \$2,500,000<sup>1</sup>.

*Table 5: Weight Application*

Area	Column P: Percent of State's Total Need	Column S: Weight of Need Variables	Column T: Need Variable Allocation*	Column Q: Percent of State's Total Availability	Column U: Weight of Availability Variable	Column V: Availability Variable Allocation~	Column R: Percent of State's Total Regional Coverage Factor	Column W: Weight of Availability Variable	Column X: Availability Variable Allocation^	Column Y: Total Allocation*
Region 1 (MSA Counties with urban places)	5.0%	100.0%	\$ 124,338	3.5%	-20%	\$ (17,500)	1.0%	20%	\$4,799	\$ 111,637

Note: Column P, Q and R taken from Table 4.

\*Column T is calculated as follows: Column P x Column S x statewide availability of funds.

~Column V is calculated as follows: Column Q x Column U x statewide availability of funds.

^ Column X is calculated as follows: Column W x Column X x statewide availability of funds.

\*Column Y is calculated as follows: Column T + Column V + Column X.

### *Minimum Sub-regional Allocation Adjustment*

For the HOME SF RAF, if the calculated RAF results in a sub-regional funding amount that is less than \$100,000, that sub-region's amount of funding is adjusted to provide for at least a minimum of \$100,000. This is done as a final adjustment to the sub-regional allocation amounts available for award. The process does not take funds from sub-regions with initial funding amounts in excess of \$100,000 and does not reallocate those funds to those sub-regions with initial funding amounts that are less than \$100,000. The final adjustment simply adds a supplemental allocation to bring all sub-regions to a minimum of \$100,000. The process is complete when each sub-region has at least \$100,000.

Table 6 (below) shows the process of supplementing funds to any sub-regions that have initial funding amounts that are less than \$100,000. This table builds from the previous tables included in this methodology and, for ease of explanation, Regions 1 and 2 "MSA counties with 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.

<sup>1</sup> Although the *Attachment A – Sample Allocation for the HOME SF Program* is based on a statewide availability of \$10,000,000, the Methodology example is based on a statewide availability of \$2,500,000 to more clearly show a Minimum Sub-regional Allocation Adjustment when initial HOME SF sub-region allocations fall under \$100,000.

Table 6: Sub-region amount under \$100,000

Area	Column Y: Initial Sub-region amount	Column Z: Amount needed to reach \$100,000	Column AA: Final Award Amount
Region 1 (MSA Counties with urban places)	\$111,637	\$-	\$111,637
Region 2 (MSA Counties with urban places)	\$84,255	\$15,745	\$100,000
<b>Total</b>			
	\$195,892	\$15,745	\$211,637

Note: Column Y is from Table 5.

Since the Region 1 “MSA Counties with urban places” initial Sub-region amount exceeds \$100,000, no adjustment is made to this sub-award. However, Region 2 “MSA counties with urban places” initial Sub-region amount is less than \$100,000, a supplemental award amount is added to bring the sub-region up to the final award amount of \$100,000.