

2019 Regional Allocation Formula Methodology

Contents

Introduction.....	1
Statutory Requirement	2
Urban and Rural Areas	2
Methodology.....	4
Affordable Housing Need	4
Income.....	4
Cost Burden and Overcrowding	4
Lack of Kitchen and Plumbing Facilities.....	5
Summary of Affordable Housing Need for Multifamily and Single Family Activities.....	5
Housing Availability.....	5
Regional Coverage Factor.....	5
Summary of Variables.....	6
Exceptions to the RAF.....	6
Set-Asides.....	6
Participating Jurisdictions (“PJs”)	7
Allocation Adjustments.....	7
Single Family RAF Example	8
Compounded Need.....	10
Weights.....	10
Minimum Subregional Allocation Adjustment.....	11
Multifamily RAF Example	12
Weights.....	13
HTC \$500,000 Adjustment.....	14

Introduction

Since 2000, the Texas Department of Housing and Community Affairs (“TDHCA” or “the Department”) has used a Regional Allocation Formula (“RAF”) as required by Tex. Gov’t Code §§2306.111 and 2306.1115. The RAF analyzes housing need, availability, and other relevant factors in the State’s urban and rural areas. Using formula components based on this analysis, the RAF has been used to allocate funding and certain other assistance for multifamily and single family activities for the following programs:

- Multifamily Activities:
 - Housing Tax Credit (“HTC”) Program
 - HOME Investment Partnerships Program (“HOME”) Multifamily (“MF”)
- Single Family Activities:
 - State Housing Trust Fund (“SHTF”) Program*
 - HOME Single Family (“SF”)

*It should be noted that based on the current program activities of SHTF, the RAF is not utilized for SHTF as authorized by Tex. Gov’t Code §2306.111(d-1). SHTF is funded through state general revenue and is not to be confused with the federally-funded National Housing Trust Fund (“NHTF”).

The Methodology presented in this document explains the use of factors in conformity with statutory requirements including the need for housing assistance, the availability of housing resources, and other factors relevant to the equitable distribution of housing funds in urban and rural areas of the state.

Also provided with the Methodology is an example allocation spreadsheet for each of the four programs to show how the methodologies affect each program. The spreadsheets provided are based on the following example allocations:

Program	Example Allocation
HTC	\$65,000,000
HOME Multifamily	\$12,500,000
SHTF	\$3,000,000
HOME Single Family	\$15,000,000

These allocation amounts are only examples. The final allocation amounts are calculated by program area staff following approval of the RAF Methodology by the TDHCA Governing Board and are based on the latest available information on the amount available to be allocated under each program or activity. Even when final allocation amounts are made available, other planning considerations may alter the applicability of the RAF and/or allocation amounts. For example, the funding activity type for HOME SF may further affect how and whether or not funds are released regionally. In addition, per Tex. Gov’t Code §2306.111(d-1)(3), if SHTF funds administered by the Department (and not otherwise set aside) do not exceed \$3 million, then SHTF funds are not required to be allocated using the formula-based RAF discussed here, although other policies dictate the geographic dispersal of funds.

The Draft 2019 RAF Methodology was presented at the May 24, 2018, TDHCA Board meeting for approval to be released for public comment. A public comment period was open from Friday, May 25, 2018, through Friday, June 15, 2018, with a public hearing on Thursday, June 7, 2018. No public comment was received and no changes were made. The Final 2019 RAF Methodology was presented for approval at the Board meeting of July 12, 2018.

Statutory Requirement

Tex. Gov't Code §§2306.111 and 2306.1115 require that TDHCA use a RAF for HOME, SHTF, and HTC Programs.

Tex. Gov't 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 detailed in this document takes into account the need for housing assistance and the availability of housing in urban and rural areas in keeping with the statutory requirements for the HOME SF, HOME MF, SHTF, and HTC programs. The methodology also includes a regional coverage factor for single family programs that measures inverse population density in keeping with the statutory requirements to include other factors necessary for the equitable distribution of funding.

Urban and Rural Areas

Tex. Gov't Code §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

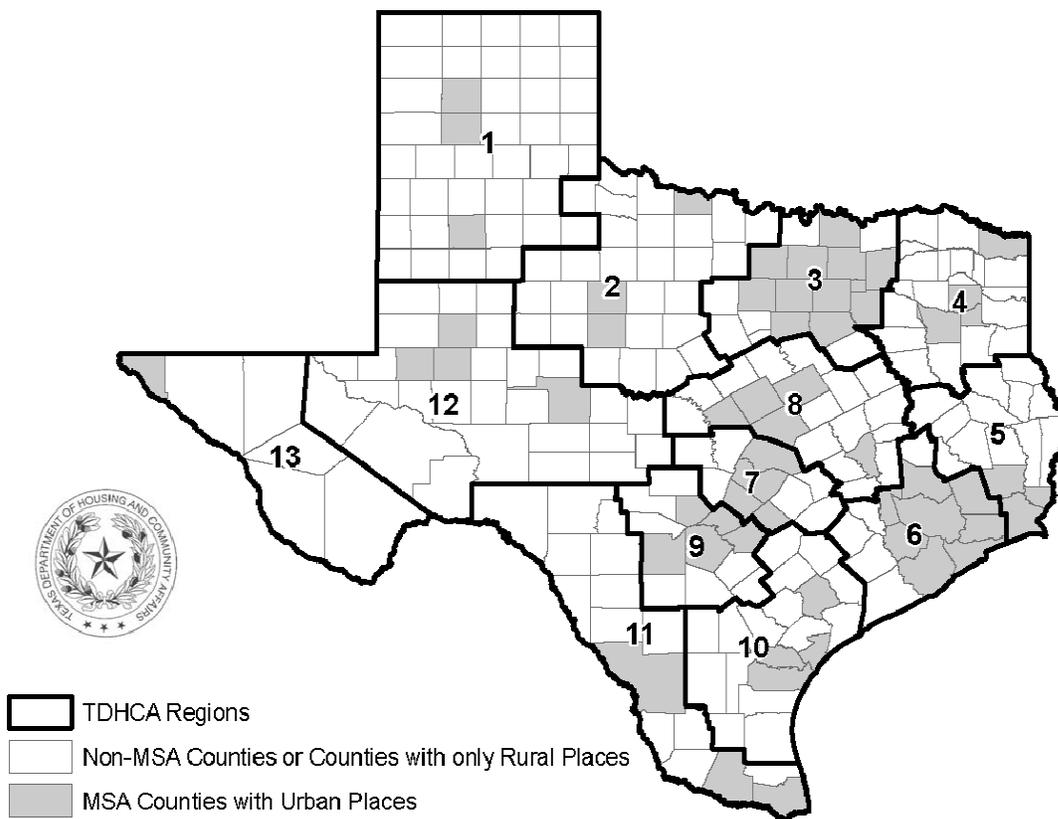
(B) within the boundaries of a primary metropolitan statistical area or a metropolitan statistical area, if the statistical area has a population of 25,000 or less and does not share a boundary with an urban area.

Tex. Gov't Code §2306.004(28-a)(B) is applied to incorporated places and census-designated places (collectively "places") that correlate to cities, towns, and similar geographies as designated by the U.S. Census Bureau. The requirement regarding "a population of 25,000" and the requirement regarding boundaries are applied at the place level. Prior to the development of the RAF each year, these parameters are used to determine which places are urban and which are rural. Organizations applying for certain TDHCA administered funds may use the urban and rural place designation to determine which subregional allocation they are eligible to apply for. The RAF methodology does not override the urban or rural designations of specific places. The rural and urban designation for site-specific applications is made at the place level.

However, the RAF is a macro view compared to place-level analysis, so in order to measure housing need across the State of Texas for the purpose of subregional allocations only county-level data are used. County data are more complete than combining place-level data. If the RAF only combined data from places, unincorporated parts of the state would not be considered. Using place-level data to create the RAF would be incomplete and substantially hinder its utility as an equitable allocation tool. Alternatively, using county-level data to determine need and availability factors allows for a more complete picture of the State’s demographics.

Even though a county may be part of a Metropolitan Statistical Area (“MSA”) per the U.S. Office of Management and Budget (“OMB”) definitions, all of the places within that county may meet the definition of a rural area per Tex. Gov’t Code §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 with a population over 25,000 or touching a boundary of a place with a population over 25,000). The allocation process outlined in this document refers to “MSA counties with urban places” as “urban counties” and “Non-MSA counties and counties with only rural places” as “rural counties.” 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.

Map of Urban and Rural Counties in Texas by Region



Sources: U.S. Census Bureau, 2011-2015 American Community Survey 5-Year Estimates, Table B01003.
 U.S. Census Bureau, Jul. 2015, CBSAs, metropolitan divisions, and CSAs.
 TIGER data 2015.

Disclaimer: This map is not a survey product; boundaries, distances, and scale are approximate only.

Methodology

Affordable Housing Need

For the purposes of developing an allocation formula, affordable housing need is measured by variables that relate to the types of assistance available through TDHCA programs. Despite SHTF not currently utilizing the RAF, SHTF is included in the RAF methodology description in the event that funding or programmatic changes require the RAF to be utilized for this program.

Income

Income is the primary measurement of eligibility for housing assistance through TDHCA. HOME and SHTF serve households that earn less than or equal to 80% Area Median Family Income (“AMFI”) and HTC serves households that earn less than or equal to 60% AMFI. While eligibility for housing assistance is measured by AMFI, datasets showing how many households are in each AMFI 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 individuals in poverty will be used to measure eligible populations. The percentage of individuals at or below 200% of the poverty level is strongly linked with the percentage of individuals earning less than or equal to 80% AMFI. Individuals at or below 200% of the poverty level will qualify for a majority of the housing assistance options offered through TDHCA’s HOME, HTC, and SHTF programs. In order for *individuals* in poverty to be combined with cost burdened and overcrowded *households*, the number of individuals at or below 200% poverty is divided by the average size of a household in Texas. The number of individuals at or below 200% poverty is included as a variable in all four program RAFs.

Cost Burden and Overcrowding

Renter and owner need for housing assistance is measured through cost burden and overcrowding conditions. The count of cost burdened renter and owner households used in the RAF measures the number of households in Texas that pay more than 30% of their income on rent or homeowner costs (for homeowners with a mortgage), which is a common measure of unaffordable housing. The count of overcrowded renters and owners measures the number of housing units with more than one person per room, including the kitchen and bathroom. Areas with high cost burden or overcrowding may signify a need for assistance.

HTC and HOME MF both offer assistance for reduced-rent apartments. HOME SF offers Tenant-Based Rental Assistance, which pays a portion of a recipient’s rent to the landlord. SHTF offers the Amy Young Barrier Removal Program, which can serve both renters and homeowners. Therefore, variables representing renters who need assistance are included in the analysis for all four program RAFs.

HOME SF offers homebuyer assistance, home repair assistance, and single family development programs. For home repair, HOME SF offers grants and no-interest loans to homeowners to rehabilitate or reconstruct their homes. For single family development, typically the homes are built by Community Housing Development Organizations (“CHDOs”) and the homes are purchased by low-income homeowners. SHTF 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” and low- to no-interest loans to build and secure ownership of their homes. Therefore, variables representing homeowners who need assistance are included in the HOME SF and SHTF RAFs.

Lack of Kitchen and Plumbing Facilities

HOME SF offers homeowner rehabilitation or reconstruction assistance, and SHTF has activities involving rehabilitation such as the Amy Young Barrier Removal Program. Because TDHCA programs fund rehabilitation, substandard housing units should be included in the RAF. Common definitions of substandard housing include lack of operable indoor plumbing, usable flush toilets, usable bathtub or shower, safe electricity, safe or adequate source of heat, or kitchen facilities. Data regarding units lacking kitchen facilities or plumbing are the only data available on both an annual basis and at a county level. The count of occupied and unoccupied units lacking kitchen facilities and the count of occupied and unoccupied units lacking plumbing are utilized in the HOME SF and SHTF RAFs.

Summary of Affordable Housing Need for Multifamily and Single Family Activities

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

1. Cost burdened renter and owner households;
2. Overcrowded renter and owner households;
3. Housing units lacking kitchen facilities;
4. Housing units lacking plumbing; and
5. Individuals at or below 200% of the poverty rate.

The extent of Texans needing affordable housing is measured using three variables for multifamily activities:

1. Cost burdened renter households;
2. Overcrowded renter households; and
3. Individuals at or below 200% of the poverty rate.

Housing Availability

Housing availability is 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 or potentially abundant supply of housing. Both vacant units for sale and vacant units for rent will be included in the HOME SF and SHTF RAFs, while vacant units for rent alone are included in the HOME MF and HTC RAFs.

Regional Coverage Factor

Population density is the number of people divided by the area of land in which they live. A high population density means that more people are living in a given land area compared to other equally-sized pieces of land. Inverse population density, which divides the land area by the number of people that live in that area, gives the amount of land per person. A high inverse population density means that fewer people are living in a given land area compared to other equally-sized pieces of land, and may indicate a challenge in reaching and serving Texans in that area.

Inverse population density is included in the HOME SF and SHTF RAFs as a Regional Coverage Factor to take into account the distance between scattered-site single family activities and the dispersed population within the predominantly rural areas where HOME SF and SHTF administrators provide assistance. TDHCA's multifamily programs generally focus development to a single site, so the Regional Coverage Factor is not as pertinent to multifamily program allocation. The Regional Coverage Factor assists in redistributing single family program funding from urban areas to more rural parts of the state, better aligning funding goals with the statutory

requirement that 95% of HOME funds be allocated for the benefit of those areas of the state that do not receive HOME funds directly from the U.S. Department of Housing and Urban Development (“HUD”), chiefly smaller cities and rural areas (per Tex. Gov’t Code §2306.111).

Summary of Variables

The following chart shows which need, availability, and other variables are used in the RAF Methodology for each of the four applicable programs.

		Multifamily Programs		Single Family Programs	
		HTC	HOME MF	SHTF	HOME SF
Need Variables	<i>Cost Burdened Renter Households</i>	✓	✓	✓	✓
	<i>Cost Burdened Owner Households</i>			✓	✓
	<i>Overcrowded Renter Households</i>	✓	✓	✓	✓
	<i>Overcrowded Owner Households</i>			✓	✓
	<i>Units Lacking Kitchen Facilities</i>			✓	✓
	<i>Units Lacking Plumbing Facilities</i>			✓	✓
	<i>Individuals at or Below 200% of Poverty</i>	✓	✓	✓	✓
Availability Variables	<i>Vacant Units for Rent</i>	✓	✓	✓	✓
	<i>Vacant Units for Sale</i>			✓	✓
Other	<i>Regional Coverage Factor</i>			✓	✓

Exceptions to the RAF

Per Tex. Gov’t Code §2306.111, there are certain instances in which the RAF requirement does not apply to HOME MF, HOME SF, HTC, or SHTF funds.

Set-Asides

Specific set-asides will not be subject to the RAF per Tex. Gov’t Code §2306.111(d-1), including set-asides for contract-for-deed activities 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. The total amount available through the RAF will not include funds for at-risk development for the HTC Program, with instances mentioned in this paragraph. Also pursuant to Tex. Gov’t Code §2306.111(d-1), programmed activities for SHTF that do not exceed \$3 million are not subject to the RAF. It is due to these exceptions that the SHTF funds as currently programmed do not utilize the RAF.

In addition, per Tex. Gov’t Code §2306.111(c)(1), 5% 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.

In Tex. Gov't Code §2306.111(d-2), 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 may 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 subregion.

Participating Jurisdictions ("PJs")

In accordance with Tex. Gov't Code §§2306.111(c)(1) and (2), 95% of the funds for HOME must be spent outside PJs. PJs are areas that receive funding directly from HUD. Because 95% of funds cannot be spent within a PJ, the housing need factors, housing availability factors, and Regional Coverage Factor in the PJs are not counted in the HOME MF or HOME SF RAF.

The PJ designations are subject to change annually depending on HUD funding. According to HUD's 2017 HOME allocation, 33 of the PJs are cities and eight of the PJs are counties. Five PJ cities fell completely within PJ counties, resulting in a total of 28 PJ cities and eight PJ counties that will be subtracted from the HOME SF and HOME MF versions for the 2018 RAF.

Allocation Adjustments

The HOME SF and HTC RAFs have subregional allocation adjustments under certain conditions. Tex. Gov't Code §2306.111(d-3) requires that at least \$500,000 in housing tax credits be allocated to each urban and rural subregion. In a further effort to meet Tex. Gov't Code §§2306.111(c)(1) and (2), the HOME SF RAF has a minimum subregional allocation of \$100,000. Additional detail regarding the processes used to adjust allocations for the HOME SF RAF and the HTC RAF can be found in the single family and multifamily RAF examples.

Single Family RAF Example

Tables 1, 2, and 3 show the need variables, availability variables, and regional coverage factor used in the HOME SF RAF. The SHTF RAF is very similar to the HOME SF RAF with the exception that the SHTF RAF includes PJs. Example numbers are used for clarity.

Table 1: Example of Need Variables Used for HOME SF, by Subregion

MSA Counties with Urban Places	Region	Column A: Individuals at or below 200% Poverty without PJs	Column B: Households (“HH”) at or below 200% Poverty without PJs	Column C: Cost Burdened Owners without PJs	Column D: Cost Burdened Renters without PJs	Column E: Overcrowded Owners without PJs	Column F: Overcrowded Renters without PJs	Column G: Units Lacking Plumbing without PJs	Column H: Units Lacking Kitchen without PJs	Column I: Total 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	
Non-MSA counties and counties with only rural	Region	Column A: Individuals at or below 200% Poverty without PJs	Column B: HH at or below 200% Poverty without PJs	Column C: Cost Burdened Owners without PJs	Column D: Cost Burdened Renters without PJs	Column E: Overcrowded Owners without PJs	Column F: Overcrowded Renters without PJs	Column G: Units Lacking Plumbing without PJs	Column H: Units Lacking Kitchen without PJs	Column I: Total Need Variables
	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	
	Col A Total	Col B Total	Col C Total	Col D Total	Col E Total	Col F Total	Col G Total	Col H Total	Col 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 for HOME SF, by Subregion

MSA Counties with urban places	Region	Column J: Vacant Units For Sale without PJs	Column K: Vacant Units For Rent without PJs	Column L: Total Availability Variables
	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
	Column J Total	Column K Total	Column L Total	
Total	39,000	61,000	100,000	

Table 3: Example of Regional Coverage Factor used for HOME SF, by Subregion

MSA Counties with urban places	Region	Column M: Land area without PJs	Column N: Total Population without PJs	Column O: Regional Coverage Factor
	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
	Column M Total	Column N Total	Column O Total	
Total	216,000	7,150,000	0.893	

Non-MSA counties and counties with only rural places	Region	Column J: Vacant Units For Sale without PJs	Column K: Vacant Units For Rent without PJs	Column L: Total Availability Variables
	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

Non-MSA counties and counties with only rural places	Region	Column M: Land area without PJs	Column N: Total Population without PJs	Column O: Regional Coverage Factor
	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

Compounded Need

To allocate funds, the RAF uses each subregion’s ratios of the State’s total. All of the variables that measure need will be added together before taking the percentage of each subregion’s need over the amount of the total need in the State. Table 1, Column I, illustrates how the Total Need Variables are derived: Households at 200% of poverty, cost-burdened owner and renter households, over-crowded owner and renter households, 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

Examples of how the weights work in the RAF are in Tables 4 through 6. The column header letters (A, B, C, etc.) will build off the previous table, so if the letters are not in alphabetical order, the column header letter refers to a previous table. For the sake of simplification, for the remainder of the example “MSA Counties with Urban Places” will be referred to as “Urban Counties,” and “Non-MSA Counties and Counties with Only Rural Places” will be referred to as “Rural Counties.”

In order to apply weights, percentages of need, availability, and inverse population density, variables must be taken from the state as a whole. These percentages illustrate the relative need of the subregion. Table 4 demonstrates how the percentages are derived. Table 4 shows only the urban counties of Region 1 and the total of all the regions, in order to simplify the example.

Table 4: Percentages Taken

Area	Column I: Total Need Variables	Column P: Percent of State's Total Need	Column L: Total Availability Variables	Column Q: Percent of State's Total Availability	Column O: Regional Coverage Factor	Column R: Percent of State's Total Regional Coverage Factor
Urban Region 1	84,691	5.0%	3,500	3.5%	0.075	8.4%
Total	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 variables will have negative weight, while the need variables and regional coverage factor will have positive weight. All variables added together must equal 100%, so the formulas to determine variable weight for the Single Family RAF are as follows:

- Total Need Variables = HH at or below 200% poverty + Cost Burden + Overcrowding + Units Lacking Plumbing + Units Lacking Kitchen
- Total Availability Variables = Unoccupied Units for Sale + Unoccupied Units for Rent
- Regional Coverage Factor = Inverse Population Density
- Total Need Variables – Total Availability Variables + Regional Coverage Factor = 100%

To put it simply (with x representing the weight of each variable): $5x - x + x = 100\%$

As a result, each variable is weighted at 20% for Single Family programs, giving the appropriate relationship between funding and current availability of resources. The compounded need variables will receive 100% weight. Table 5 shows the application of the weights based on a hypothetical statewide availability of \$2,500,000 to more clearly emphasize how a Minimum Subregional Allocation Adjustment is made when initial HOME SF subregion allocations fall under \$100,000.

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+
Urban Region 1	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 R x statewide availability of funds.

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

Minimum Subregional Allocation Adjustment

A floor was added to the HOME SF RAF in order to allow sufficient funding to award at least one contract in each sub region. If the RAF results in a subregional funding amount that is less than \$100,000, that subregion’s amount of funding is adjusted to provide for at least a minimum of \$100,000. The process does not reallocate funds from subregions with initial funding amounts in excess of \$100,000 to those subregions with initial funding amounts that are less than \$100,000. Funds used to enable the floor are not subject to RAF requirements and so are added as a final adjustment to the subregional allocation amounts available for award. The final adjustment simply adds a supplemental allocation to bring all subregions to a minimum of \$100,000. The process is complete when each subregion has at least \$100,000.

Table 6 shows the process of supplementing funds to subregions that have initial funding amounts that are less than \$100,000. This table builds from the previous tables included in this methodology and the Urban Counties of Regions 1 and 2 are included. The column header letters build off previous tables, so if the letters are not in alphabetical order, the column letter refers to previous tables.

Table 6: Subregion amount under \$100,000

Area	Column Y: Initial Subregion amount	Column Z: Amount needed to reach \$100,000	Column AA: Final Subregion Allocation
Urban Region 1	\$111,637	\$-	\$111,637
Urban Region 2	\$84,255	\$15,745	\$100,000
Total	\$195,892	\$15,745	\$211,637

Note: Column Y is from Table 5.

Since the Urban Region 1 initial Subregion amount exceeds \$100,000, no adjustment is made to this sub-allocation. However, because the Urban Region 2 initial Subregion amount is less than \$100,000, a supplemental allocation amount is added to bring the subregion allocation up to the final allocation amount of \$100,000.

Multifamily RAF Example

Table 7 shows the need and availability variables used in the HTC RAF. The HTC RAF is very similar to the HOME MF RAF with the exception that the HTC RAF includes PJs. Example numbers are used for clarity.

Table 7: Example of Need and Availability Variables used for HTC, by Subregion

MSA Counties with urban places	Region	Column BB: Individuals at or below 200% Poverty	Column CC: HH at or below 200% Poverty	Column DD: Cost Burdened Renters	Column EE: Overcrowded Renters	Column FF: Vacant Units for Rent
	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

Non-MSA counties and counties with only rural places	Region	Column BB: Individuals at or below 200% Poverty	Column CC: HH at or below 200% Poverty	Column DD: Cost Burdened Renters	Column EE: Overcrowded Renters	Column FF: Vacant Units for Rent
	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

	Column BB Total	Column CC Total	Column DD Total	Column EE Total	Column FF Total
Total	2,080,000	742,857	356,000	47,300	73,900

Weights

To allocate funds, the RAF will use each subregion’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 (i.e., compounded) before taking the percentage of each subregion’s need over the amount of the total need in the State.

Examples of how the weights work in the RAF are in Tables 8 through 10. If the letters are not in alphabetical order, the column header letter refers to a previous table. For the sake of simplification, for the remainder of the example “MSA Counties with Urban Places” will be referred to as “Urban Counties,” and “Non-MSA Counties and Counties with Only Rural Places” will be referred to as “Rural Counties.”

Table 8 shows only the Urban Counties of Region 1 and the total of all the regions. Table 8 illustrates how the Total Need Variables are derived: Households at or below 200% of poverty, cost-burdened renter households, and over-crowded renter households 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 8: Total Need Variables

Area	Column CC: HH at or below 200% Poverty	Column DD: Cost Burdened Renters	Column EE: Overcrowded Renters	Column GG: Total Need Variables
Urban Region 1	53,571	25,000	4,000	82,571
Total	742,857	356,000	47,300	1,146,157

Note: Columns CC, DD and EE are from Table 7.

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 subregion. Table 9 demonstrates how the percentages are derived.

Table 9: Percentages Taken

Area	Column GG: Total Need Variables	Column HH: Percent of State's Total Need	Column II: Vacant Units for Rent	Column JJ: Percent of State's Total Availability
Urban Region 1	82,571	7.2%	6,000	8.1%
Total	1,146,157		73,900	

Note: Column GG is from Table 8.

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. All variables added together must equal 100%, so the formulas to determine variable weight for the Multifamily RAF are as follows:

- Total Need Variables = HH at or below 200% poverty + Renter Cost Burden + Renter Overcrowding
- Availability Variable = Unoccupied Units for Rent
- Total Need Variables – Availability Variable = 100%

To put it simply (with x representing the weight of each variable): $3x-x=100\%$

As a result, each variable is weighted at 50% for multifamily programs, giving the appropriate relationship between funding and current availability of resources. The compounded need variables will receive 150% weight. Table 10 shows the application of the weights based on a statewide availability of \$40,000,000 to emphasize how a proportional adjustment is made when initial HTC allocations fall under \$500,000.

Table 10: Weight Application

Area	Column HH: Percent of State's Total Need	Column KK: Weight of Need Variables	Column LL: Need Variable Allocation*	Column JJ: Percent of State's Total Availability	Column MM: Weight of Availability Variable	Column NN: Availability Variable Allocation~	Column OO: Total Allocation+
Urban Region 1	7.2%	150.0%	\$ 4,322,519	8.1%	-50%	\$ (1,623,816)	\$ 2,698,703

Note: Column HH and JJ taken from Table 9.

*Column LL is calculated as follows: Column HH x Column KK x statewide availability of funds.

~Column NN is calculated as follows: Column JJ x Column MM x statewide availability of funds.

+Column OO is calculated as follows: Column LL + Column NN.

HTC \$500,000 Adjustment

Tex. Gov't 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% of housing tax credits to rural areas and that \$500,000 be available for each of the 26 urban subregions and rural subregions. The overall state rural percentage of the total tax credit ceiling amount will be adjusted to a minimum of 20% only at the time of actual award, if needed. Usually, the 20% allocation to rural areas occurs through the competitive process, 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 subregional allocation amounts available for award. The process proportionately takes funds from subregions with initial funding amounts in excess of \$500,000 and reallocates those funds to those subregions with initial funding amounts that are less than \$500,000. The process is complete when each subregion has at least \$500,000.

Tables 11 through 12 show the process of determining the amount to adjust from subregions with more than \$500,000. These tables build from the previous tables included in this methodology and Urban Region 1 and 2 and Rural Region 1 and 2 are included. 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 subregions are examined because the most common movement for funds during the \$500,000 adjustment is from Urban Counties to Rural Counties. The first step in the \$500,000 adjustment process is to determine the amount over or under \$500,000 for each subregion. This is illustrated in Table 11.

Table 11: Subregion amount over/under \$500,000

Area	Column OO: Initial Subregion amount	Column PP: Amount needed to reach \$500,000	Column QQ: Amount over \$500,000 that can be reallocated
Urban Region 1	\$2,698,703	\$-	\$2,198,703
Urban Region 2	\$1,938,732	\$-	\$1,438,732
Rural Region 1	\$961,482	\$-	\$461,482
Rural Region 2	\$457,720	\$42,280	\$-

Note: Column OO is from Table 10.

Column QQ in Table 11 is the amount in Column OO minus \$500,000 if the amount in Column OO is over \$500,000. At least \$500,000 is maintained in each subregion before the adjustment process. Next the amounts in Column PP are totaled for the entire state and the amounts in Column QQ are totaled for the entire state. In this simplified example, the Column PP's total would be \$42,280. The Column QQ total would be \$4,098,917.

The next step in the adjustment process is to determine the percentage to be reallocated. Following the example in Table 11, if only Region 1 and 2 were used in the RAF, the percentages would be seen in Column RR in Table 12. The proportion of the total amount to be reallocated is in Column SS. Finally, Column OO is adjusted by Column SS to equal the final Sub-Amount in Column TT.

Table 12: Proportional adjustment

Area	Column RR: Amount that can be reallocated*	Column SS: Amount to be reallocated~	Column TT: Final Subregion Allocation+
Urban Region 1	54%	\$ (22,679)	\$ 2,676,024
Urban Region 2	35%	\$ (14,840)	\$ 1,923,892
Rural Region 1	11%	\$ (4,760)	\$ 956,722
Rural Region 2	-%	\$ 42,280	\$ 500,000

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

~Column SS is calculated as followed: if Column RR is a percentage, then $(\text{Column RR} * \$42,280)$; if Column RR is "%", then Column SS equals Column PP.

+Column TT is calculated as follows: $\text{Column OO} + \text{Column SS}$.