2022 Regional Allocation Formula Methodology

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Introduction

Since 2000, the Texas Department of Housing and Community Affairs (TDHCA or the Department) has used a Regional Allocation Formula (RAF) to allocate funding at the regional and subregional level for multifamily and single-family activities. The RAF is required by Tex. Gov't Code §§2306.111 and 2306.1115. It allocates funding for the following programs:

Multifamily Programs:
Housing Tax Credit (HTC) Program
HOME Investment Partnerships Program (HOME) Multifamily (MF)
Single Family Programs:
Housing Trust Fund (HTF) Program*
HOME Single Family (SF)

* The RAF is not required to be utilized for HTF as authorized by Tex. Gov't Code §2306.111(d-1). HTF is funded through state general revenue and is not to be confused with the federally funded National Housing Trust Fund (NHTF).

The following methodology explains how the RAF meets statutory requirements by accounting for housing need, housing resource availability, and other factors relevant to the equitable distribution of housing funds in urban and rural areas of the state.

The methodology also includes example allocation spreadsheets for each of the four programs subject to the RAF. These spreadsheets demonstrate how the methodology affects each program. The provided spreadsheets utilize the following total allocation amounts:

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

These allocation amounts are only examples. After approval of the RAF Methodology by the TDHCA Governing Board, Program area staff calculate the final allocation amounts according to the most recent information on funding availability. Other planning considerations may also alter the final allocations provided by the RAF. For example, certain HOME SF activities may not release funds subregionally using the RAF. In addition, per Tex. Gov't Code §2306.111(d-1)(3), if HTF funds administered by the Department (and not otherwise set aside) do not exceed $3 million, then HTF funds are not required to be allocated using the RAF.

The draft 2022 RAF Methodology was presented at the May 13, 2021, TDHCA Board meeting for approval to be released for public comment. A public comment period was open from Monday, May 24, 2021, through Thursday, June 24, 2021 at 5:00 pm Austin local time. A virtual public hearing for the draft 2022 RAF Methodology was held at 2:00 p.m. Austin local time on Wednesday, June 2, 2021, over the GoToWebinar service.

Statutory Requirement

Tex. Gov't Code §§2306.111 and 2306.1115 require that TDHCA use a formula to allocate funding for the HOME, HTF, 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 evaluates both housing need and housing availability in urban and rural areas, as required by statute for the HOME SF, HOME MF, HTF, and HTC programs. The methodology also includes a regional coverage factor for single family programs. This coverage factor utilizes an inverse population density function to help distribute single family program funding to more rural areas of the state in accordance with the statutory requirements.

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

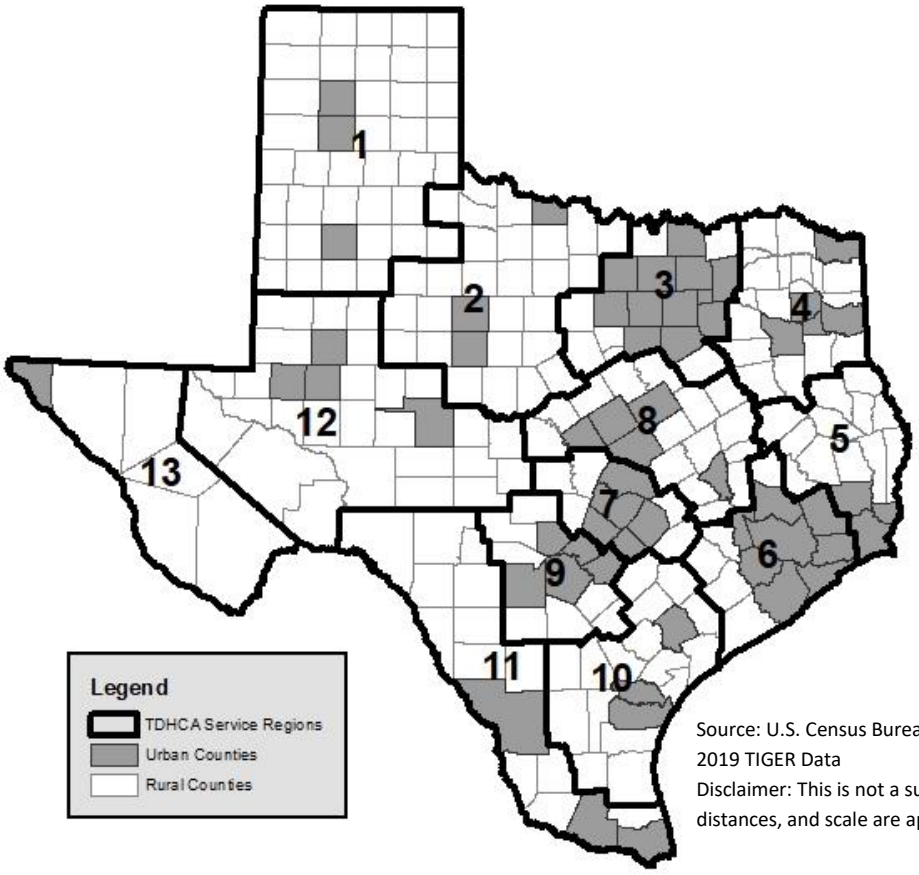
(B) within the boundaries of a primary metropolitan statistical area or a metropolitan statistical area, if the statistical area has a population of 25,000 or less and does not share a boundary with an urban area.

Tex. Gov't Code §2306.004(28-a) is applied to incorporated places and Census Designated Places, as defined by the U.S. Census Bureau, collectively referred to as places. Prior to the development of the RAF each year, the parameters outlined in Tex. Gov't Code are used to determine which of these places are urban and which are rural. Organizations applying for certain site-specific TDHCA-administered funds use the urban and rural place designations to determine which subregional allocation they are eligible to apply for. If the site is located in an urban place, then that organization applies for funds allocated to the urban subregion of their region, while organizations requesting funds for sites in rural places would apply for rural subregional funds. For non-site specific funds, if a place crosses county or regional boundaries, then that place's subregion (urban or rural) is determined by the county that contains the majority area and population of the place.

Additionally, the RAF must account for the statewide need for and availability of housing. If the RAF only analyzed data from places, many unincorporated parts of the state would not be included, which would significantly hinder the RAF's utility as an equitable allocation tool. For this reason, the RAF uses county-level data to measure statewide housing need and to calculate subregional allocations. This allows for a more complete picture of the state's demographics in determining allocations.

Even if a county contains a Metropolitan Statistical Area (MSA) per the U.S. Office of Management and Budget (OMB) definitions, it's possible that all the places within that county meet the definition of a rural area per Tex. Gov't Code §2306.004(28-a). Therefore, 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 places 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



Source: U.S. Census Bureau, 2015-2019 ACS Data, 2019 TIGER Data
Disclaimer: This is not a survey product, boundaries, distances, and scale are approximate only

Methodology

For many of the RAF's variables, the Department uses the most recent American Community Survey (ACS) 5-Year Estimates data available. Land area data are not available in the annually released ACS; therefore, decennial census data must be used for the Regional Coverage Factor. The RAF currently uses the 2010 Decennial Census SF1 tables for land area.

Affordable Housing Need

For the purposes of developing an allocation formula, affordable housing need is measured through variables that correspond with the assistance provided by each specific TDHCA program. Despite HTF not currently utilizing the RAF, HTF is included in the RAF methodology description if funding levels 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, HTC, and HTF serve households that earn less than or equal to 80% Area Median Family Income (AMFI). While eligibility for housing assistance is measured by AMFI, the Comprehensive Housing Affordability Strategy (CHAS) datasets that estimate the number of households in each AMFI category lag behind the poverty data included in the ACS by one year. In order to use the most up-to-date data, the RAF will incorporate ACS data for number of individuals at or below 200% of the poverty level to help calculate affordable housing need. 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 HTF programs. The ACS collects income data by individual and housing data by household. Therefore, to ensure that data on *individuals* in poverty can be accurately weighted with data on cost burdened and overcrowded *households* to calculate affordable housing need, the income data must be converted to *households* at or below 200% of poverty. To do this, the number of individuals at or below 200% poverty in each subregion is divided by the average size of a household in Texas. The number of households 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 RAF defines a cost-burdened household as one that spends 30% or more of their monthly income on rent or homeowner costs (for homeowners with a mortgage), which is a common measure of unaffordable housing. The RAF considers an overcrowded housing unit to be one that contains more than one person per room, including the kitchen and bathroom. Areas with high cost burden or overcrowding may signify a need for assistance.

Many of TDHCA's programs aim to assist households that are cost-burdened or overcrowded. 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 their landlord. HTF 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 purchased by low-income homeowners. HTF offers the Amy Young Barrier Removal Program, which can be used for homeowners (as well as renters), 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 HTF RAFs.

Lack of Kitchen and Plumbing Facilities

HOME SF offers homeowner rehabilitation or reconstruction assistance. HTF includes activities for the rehabilitation, such as the Amy Young Barrier Removal Program. Since TDHCA programs fund the rehabilitation of substandard housing, the RAF includes measures for substandard housing. 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 total 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 HTF RAFs.

Summary of Affordable Housing Need for Single Family and Multifamily Activities

The extent of Texans needing affordable housing is measured using five variables for single family activities:
Cost burdened renter and owner households;
Overcrowded renter and owner households;
Housing units lacking kitchen facilities;
Housing units lacking plumbing; and
Individuals at or below 200% of the poverty rate.

The extent of Texans needing affordable housing is measured using three variables for multifamily activities:
Cost burdened renter households;
Overcrowded renter households; and
Individuals at or below 200% of the poverty rate.

Housing Availability

Housing availability is included to measure where existing housing resources are located. Since this includes both market-rate and subsidized units, the RAF uses vacancies as a common measurement for housing availability. A high number of vacancies may indicate that a market has an adequate or a potentially abundant supply of housing. The HOME SF and HTF RAFs incorporate both units for rent and units for sale only into their housing availability measure, while the HOME MF and HTC RAFs only incorporate units for rent.

Regional Coverage Factor

The RAF uses inverse population density to generate a regional coverage factor. Population density measures the average number of people located in a defined area (i.e. persons per square mile). This is calculated by dividing the number of people in a geographic area by the area of the land in that area. In this way, population density can be used to compare the population size of geographic areas with different dimensions. A high population density means that a geographic area has higher population relative to its available land area. Contrarily, inverse population density measures the amount of land in a geographic area per person in that area (i.e. square miles per person). This is calculated by dividing the land area by the number of people that live in that area. A high inverse population density means that a geographic area has more land area relative to its population size. In this way, high population density generally corresponds to urban regions, while high inverse population generally corresponds to more rural regions.

Inverse population density is included in the HOME SF and HTF RAFs as a Regional Coverage Factor to consider the distance between scattered-site single family activities. This includes accounting for the dispersed population within the predominantly rural areas where HOME SF and HTF administrators provide assistance. TDHCA's multifamily programs generally focus development on 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. This better aligns funding availability 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), primarily 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	HTF	HOME SF
Need Variables	*Cost Burdened Renter Households*	✓	✓	✓	✓
	Cost Burdened Owner Households			✓	✓
	Overcrowded Renter Households	✓	✓	✓	✓
	Overcrowded Owner Households			✓	✓
	Units Lacking Kitchen Facilities			✓	✓
	Units Lacking Plumbing Facilities			✓	✓
	Individuals at or Below 200% of Poverty	✓	✓	✓	✓
	Vacant Units for Rent	✓	✓	✓	✓

		Multifamily Programs		Single Family Programs	
		HTC	HOME MF	HTF	HOME SF
Availability Variables	*Vacant Units for Sale*			✓	✓
Other	*Regional Coverage Factor*			✓	✓

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 HTF 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 developments for the HTC Program or other statutorily created set-asides. Also pursuant to Tex. Gov't Code §2306.111(d-1), programmed activities for HTF that do not exceed $3 million are not subject to the RAF. It is due to these exceptions that the HTF funds, as currently programmed, do not utilize the RAF.

In addition, per Tex. Gov't Code §2306.111(c)(2), 5% of State HOME funds must be spent on activities that serve persons 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.

Participating Jurisdictions (PJs)

PJs refer to geographic areas that are under the jurisdiction of local government entities that receive HOME funding directly from HUD. In accordance with Tex. Gov't Code §§2306.111(c)(1), 95% of the funds for HOME must be spent outside of PJs. Since 95% of HOME funds cannot be spent within a PJ, the housing need, availability, and coverage variables of PJs are not counted toward the subregional allocations for the HOME SF and HOME MF RAFS.

PJ designations are subject to change annually depending on HUD funding. According to HUD's 2020 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 RAFs.

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 the HTC Program's 2019 Qualified Allocation Plan (QAP), the Department adopted an increase to the $500,000 figure establishing a $600,000 minimum for each region. 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 HTF RAF is very similar to the HOME SF RAF with the exception that the HTF RAF includes PJs. Example numbers are used for illustrative purposes only. The statewide average household size in the following example is 2.82.

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

	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
MSA Counties with Urban Places	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 places	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
State 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

	Region	Column J: Vacant Units For Sale without PJs	Column K: Vacant Units For Rent without PJs	Column L: Total Availability Variables
MSA Counties with urban places	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
Non-MSA counties and counties with only rural places	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
		Column J Total	Column K Total	Column L Total
State Total		39,000	61,000	100,000

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

	Region	Column M: Land area without PJs	Column N: Total Population without PJs	Column O: Regional Coverage Factor
MSA Counties with urban places	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
Non-MSA counties and counties with only rural places	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
		Column M Total	Column N Total	Column O Total
State Total		216,000	7,150,000	0.893

Compounded Need

To allocate funds, the RAF compares each subregion's total need to the state's total need. All of the housing need variables are added together. Then, each subregion's total need is taken as a percentage of the amount of 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, overcrowded owner and renter households, units lacking kitchen facilities, and units lacking 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. This prevents variables from being disproportionately weighted.

Weights

Examples of how the weights operate in the RAF are in Tables 4 and 5. The column header letters (A, B, C, etc.) will build off the previous table. If column letters are not in alphabetical order, the column header letter refers to a previous table.

To apply weights, first the subregional percentage (the subregional share of statewide need), housing availability, and regional allocation factor must be calculated. Table 4 demonstrates how the percentages are derived. Table 4 shows only Urban Region 1 and the statewide total 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%	0.009	1.0%
State 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. Housing availability variables have a negative weight to reflect that an abundance of available units might reduce the need for assistance. The housing need variables and the regional coverage factor have positive weights to reflect that these factors may increase the need for assistance. Renter and owner components of a single need or availability category are added together, as they represent one variable for the purposes of weighting compounded need. The weight of each variable, whether need, availability, or regional coverage factor, must equal 100%; otherwise, the initial subregion allocation will not add up to the total example allocation. 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 or 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 receive 100% weight. Table 5 shows the application of the weights based on a hypothetical statewide availability of $2,500,000.

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 Regional Coverage Factor	Column X: Regional Coverage Factor Allocation^	Column Y: Total Allocation+
Urban Region 1	5.0%	100%	$ 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.

HOME Subregional Allocation Adjustment

The HOME SF RAF has a subregional floor. This floor ensures sufficient funding to award at least one contract in each subregion. If the RAF results in a subregional funding amount that is less than $100,000, that subregion's funding amount is adjusted upward 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 are added as a final adjustment to the subregional allocation amounts available for award. The final adjustment 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 Urban Regions 1 and 2 are included as examples of this adjustment. 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

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. The statewide average household size in the following example is 2.80.

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

	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
MSA Counties with urban places	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	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
Non-MSA counties and counties with only rural places	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
State Total	2,080,000	742,857	356,000	47,300	73,900

Compounded Need

To allocate funds, the RAF compares each subregion's total need to the state's total need. All of the housing need variables are added together. Then, each subregion's total need is taken as a percentage of the amount of total need in the state. Table 8 illustrates how the Total Need Variables are derived: households at or below 200% of poverty, cost burdened renter households, and overcrowded renter households are added together, thereby compounding the need. Table 8 shows only Urban Region 1 and the statewide total, in order to simplify the example.

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
State Total	742,857	356,000	47,300	1,146,157

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

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. This prevents variables from being disproportionately weighted.

Weights

Examples of how the weights work in the RAF are in Tables 9 and 10. If the letters are not in alphabetical order, the column header letter refers to a previous table.

In order to apply weights, first the subregional percentage availability, and inverse population density must be calculated. 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%
State 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. The housing availability variable has negative weight to reflect that an abundance of available units might reduce the need for assistance, while housing need variables have positive weight to reflect that these factors may increase the need for assistance. Renter and owner components of a single need or availability category are added together, as they represent one variable for the purposes of weighting the variables. The weight of each variable, whether need, availability, or regional coverage factor, must equal 100%; otherwise, the initial subregion allocation will not add up to the total example allocation. 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%

Simply stated (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 receive 150% weight. Table 10 shows the application of the weights based on a statewide availability of $40,000,000.

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%	$ 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 Subregional Allocation Adjustment

Tex. Gov't Code §2306.111(d-3) is a 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 or more be available for each of the 26 subregions. In the 2019 QAP the Department adopted an increase to the $500,000 figure establishing a $600,000 minimum for each region. The overall state rural allocation of funds is ensured to satisfy the minimum of 20% of the credit ceiling amount in rural areas by making any needed adjustments at the time of award, if needed. Usually, the 20% allocation to rural areas occurs through the competitive process, but, if not, one or more applications from rural areas will be awarded from the statewide collapse of the RAF to ensure the requirement is met.

For the HTC RAF, the subregional funding amount is adjusted to a minimum of $600,000 if needed. This is 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 $600,000 and reallocates those funds to those subregions with initial funding amounts that are less than $600,000. The process is complete when each subregion has at least $600,000.

Tables 11 and 12 show the process of determining the amount to adjust from subregions with more than $600,000. 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 $600,000 adjustment is from Urban Counties to Rural Counties. The first step in the $600,000 adjustment process is to determine the amount by which each subregion is over or under $600,000 for each subregion. This is illustrated in Table 11.

Table 11: Subregional amount over/under $600,000

Area	Column OO: Initial Subregion amount	Column PP: Amount needed to reach $600,000	Column QQ: Amount over $600,000 that can be reallocated
Urban Region 1	$2,698,703	$-	$2,098,703
Urban Region 2	$1,938,732	$-	$1,338,732
Rural Region 1	$961,482	$-	$361,482

Area	Column OO: Initial Subregion amount	Column PP: Amount needed to reach $600,000	Column QQ: Amount over $600,000 that can be reallocated
Rural Region 2	$457,720	$142,280	$-
State Total	$40,000,000	$853,682.36	$25,253,682.36

Note: Column OO is from Table 10.

Column QQ in Table 11 is the amount in Column OO minus $600,000 if the amount in Column OO is over $600,000. At least $600,000 is maintained in each subregion before the adjustment process.

The next step in the adjustment process is to determine the percentage to be reallocated. 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: Percent of Total Amount that can be reallocated*	Column SS: Amount to be reallocated~	Column TT: Final Subregion Allocation+
Urban Region 1	8.31%	$ (70,945)	$2,627,758
Urban Region 2	5.30%	$ (45,255)	$1,893,477
Rural Region 1	1.43%	$ (12,220)	$949,262
Rural Region 2	0.00%	$142,280	$600,000
State Total	100.00%	$0	$40,000,000

**Column RR is calculated as follows: if Column OO is over $600,000, then ((Column OO-$600,000)/(Statewide total for Column QQ))*
~Column SS is calculated as followed: if Column RR is a percentage, then (Column RR$853,682.36); if Column RR is "-%", then Column SS equals Column PP.*
+Column TT is calculated as follows: Column OO + Column SS.