The Affordability Risk Index (ARI):

The Affordability Risk Index is a tool intended to pinpoint census tracts in Illinois that show changing demographics and data points that indicate rental housing affordability may be at risk. The main goal of the ARI is to preserve affordable rental opportunities in areas of the state that are becoming less affordable at a faster rate. This tool is intended to be used as a needs analysis assessment device to aid in the preservation of affordable rents via the rehabilitation of existing affordable rental properties or in the adequate locating of newly constructed affordable rental.

Within the ARI, each Census Tract in Illinois is given a score of zero (0) to five (5). The higher the score, the higher the risk of affordability loss. The ARI also provides a point-based incentive for 9% Low-Income Housing Tax Credit (LIHTC) applications – up to 5 points, corresponding to the ARI score.

The Illinois Housing Development Authority (IHDA) piloted the ARI in 2016 with the intention of incorporating input from users of the index and broadening the data utilized on an annual basis. The first update and change in methodology occurred in 2017 as IHDA realized massive shifts in the data and made methodology tweaks to account for these shifts. The result was a 2017 ARI that was confusing and less than effective. IHDA removed the 2017 ARI, and with the publication of new data has restructured and simplified the methodology and created a new 2018 – 2019 Affordability Risk Index.

Data Considerations:

In creating the Affordability Risk Index, IHDA has strived to use common and publicly available data as well as simple aggregates of this data. Reliance on this system admittedly limits the amount of nuance that can be captured by examining a variety of more anecdotal or proprietary data sets or by drilling into a deeper geography and analyzing a specific address, but maintenance of commonality helps IHDA to work throughout its service area and address statewide issues. Site and market nuance is incorporated into other aspects of the common application and is encouraged to be expressed via community revitalization planning.

The Affordability Risk Index uses the American Community Survey (ACS) 5-Year Estimate data to measure change over time (between 2011 and 2016) across various factors typically assumed to indicate affordability loss. Details of the specific sources of these factors is provided below. For the 2018-2019 ARI, factors have been grouped into Scoring Categories (also detailed below) that will help simplify the scoring process and formula and will clarify location attributes for more streamlined needs analysis.

For the 2018-2019 ARI, IHDA also made an effort to regionalize the ARI scores, by comparing census tracts across regions, rather than to a statewide average. The LIHTC set-asides – City of Chicago, Chicago Metro, Other Metro, and Non-Metro – as defined in the 2018-2019 Qualified Allocation Plan were used. Each scoring factor was compared to a regional average of that scoring factor rather than a statewide average. The regional averages for each scoring factor are provided below.

Methodology:

All Census Tracts in Illinois were intended to be used in these calculations. There were roughly 32 tracts for which all the data factors were not made available. In some cases, the lack of data was due to a lack of residential population and in some, it would appear that the data thresholds were not met and the Census Bureau elected not to include. If no data was available, IHDA discounted the whole census tract – in total 7 Census Tracts were
discounted. If partial data was available, the Census Tract was inserted into the ARI methodology. In total 3114 Census Tracts were analyzed for the 2018-2019 ARI.

Threshold Consideration:
**Families Below the Federal Poverty Level (American Community Survey, 5 Year Estimates)**
The number of families living below the federally defined poverty level was divided by the number of total families for each census tract. The relative change between the 2011 and 2016 datasets was calculated for each census tract as well as the relative change between the set-aside averages. Overall, the State saw an increase in the rate of families living below the poverty line. Any census tracts indicating a relative change at a level less than the set-aside average, including those indicating a decline in family poverty rates, met the threshold for scoring.

### Illinois Region - from LIHTC Competitive Set-Asides

<table>
<thead>
<tr>
<th>Families Below the Federal Poverty Level - regional relative change average</th>
<th>City of Chicago</th>
<th>Chicago Metro</th>
<th>Other Metro</th>
<th>Non-Metro</th>
<th>All of Illinois</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2%</td>
<td>14.8%</td>
<td>10%</td>
<td>9.8%</td>
<td>8.9%</td>
<td></td>
</tr>
</tbody>
</table>

### Scoring Categories:
**Household Characteristics**
**Up to 2 Points** available in this Category (Census Tracts that qualify in all three (3) point categories below will score 2 points. Census Tracts that qualify in 1 or 2 of the point categories will score 1 point)

1) **Housing Unit Vacancy**
The number of housing unit vacancies was divided by the number of total housing units for each census tract. The relative change between the datasets was calculated for each census tract as well as the relative change between the set-aside averages. Any census tracts indicating a relative change at a level less than the set-aside average, including those indicating a decline in housing unit vacancies, qualified for scoring in this point category.

2) **Renter Tenancy**
The number of total renter occupied households was divided by the number of total occupied households for each census tract. The relative change between the datasets was calculated for each census tract as well as the relative change between the Set-aside averages. Overall, the state saw an increase in renter tenancy. Any census tracts indicating a relative change at a level less than the set-aside average, including those indicating a decline in renter tenancy, qualified for this point category.

3) **Affordable Rental Unit Survey**
IHDA uses an Affordable Rental Unit Survey (ARUS) to examine the estimated number and percentage of units affordable (regardless of subsidy) to various income levels by Census Tract throughout Illinois. This helps to analyze market need as it allows IHDA to examine the “on-the-ground” affordability within individualized markets. This survey is based on data collected from ACS 5-Year Estimates and includes housing units that are subsidized and/or rent-restricted, as well as housing units without any subsidies or rent-restrictions. To provide clarity and transparency to the analysis conducted for this survey, a Background and Methodology document has been prepared. A 25% loss in 30% AMI or 60% AMI indicated that the area is becoming less affordable and qualified for this point category.

Please note that the ARUS was ran using 2015 ACS data due to availability at the time.

### Demographic Characteristics –
One (1) point is available in this Category (Census Tracts that qualify in at least one (1) of the scoring categories below will score point)

1) Individuals Aged 16 and Over Employed in Management, Business, Science and Arts Occupations
   The number of total individuals employed in management, business, science, and arts occupations was divided by the total number of individuals aged 16 and over for each census tract. The relative change between the datasets was calculated for each census tract as well as the relative change between the set-aside averages. Overall, the state saw an increase in the rate of individuals over the age of 16 employed in these occupations. Any census tracts indicating a relative change at a level higher than the set-aside average qualified under this scoring category.

2) Individuals Aged 25 and Over with a four-year Degree (Bachelor’s) or Higher
   The number of total individuals with a four-year degree or higher was divided by the total number of individuals aged 25 and over for each census tract. The relative change between the datasets was calculated for each census tract as well as the relative change between the set-aside averages. Overall, the state saw an increase in the rate of individuals over the age of 25 with a four-year degree or higher. Any census tracts indicating a relative change at a level higher than the set-aside average qualified under this scoring category.

<table>
<thead>
<tr>
<th>Economic Characteristics –</th>
<th>Illinois Region - from LIHTC Competitive Set-Asides</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Individuals Aged 16 and Over Employed in Management, Business, Science and Arts Occupations - regional relative change average</td>
<td>City of Chicago</td>
</tr>
<tr>
<td></td>
<td>5.9%</td>
</tr>
<tr>
<td>2) Individuals Aged 25 and Over with a four-year Degree (Bachelor’s) or Higher - regional relative change average</td>
<td>9.1%</td>
</tr>
</tbody>
</table>

Economic Characteristics –

Up to 2 Points available in this Category (Census Tracts that qualify in both point categories below will score 2 points. Census Tracts that qualify in 1 of the point categories will score 1 point)

1) Median Household Income
   Median household income for each census tract from the 2011 ACS data were multiplied by a factor of 1.07 (obtained from the Bureau of Labor Statistics) in order to compensate for 2016 inflation. Census tracts were grouped by geographic set-aside. Set-aside averages were calculated for each. The relative change between the data sets was calculated for each census tract as well as the relative change between the set-aside averages. Any census tract indicating a relative change at a level greater than its set-aside average qualified.

2) Median Home Value
   Median home values for each census tract from the 2011 American ACS data were multiplied by a factor of 1.07 (obtained from the Bureau of Labor Statistics) in order to compensate for 2016 inflation. Census tracts were grouped by geographic set-aside. Set-aside averages were calculated for each. The relative change between the data sets was calculated for each census tract as well as the relative change between the set-aside averages. Any census tract indicating a relative change at a level greater than its set-aside average qualified in this scoring category.

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</tr>
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<tr>
<td>1) Median Household Income - regional relative change average</td>
<td>City of Chicago</td>
</tr>
<tr>
<td></td>
<td>-1%</td>
</tr>
<tr>
<td>2) Median Home Value - regional relative change average</td>
<td>-19%</td>
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