Barriers to Basic Needs:
Housing & Jobs Methodology

We used a similar methodology for the Jobs and Housing portions of the Barriers to Basic Needs section, both of which relied on a mix of quantitative and qualitative approaches. This was slightly different than what we used for the Education, Goods & Services, and Recreation analyses (see that separate methodology document on the Resource Library page of Moving Dutchess Forward).

Barriers to Housing:

- We used definitions and data from HUD to understand housing affordability in Dutchess County. We sought to identify areas where housing costs made up more than 30 percent of estimated household income. The 30 percent threshold is a generally accepted measure of burden when looking at housing costs as a share of income – though we acknowledge that it's not a perfect measure of burden, as other factors such as income relative to the area, family size and makeup, and other costs (e.g. food, transportation) influence a household's ability to afford housing (or their ability to absorb high housing costs).
- Based on our review of available data, we felt HUD's Community Planning Development (CDP) Systems dataset gave us the best look at housing cost burdens. Our Community Development colleagues at County Planning also recommended its use for this analysis.
- The CPD dataset shows HUD's estimation of the percent of households paying more than 30 percent of income on housing at the Census tract level. Although the HUD dataset is based on the older 2011-2015 American Community Survey (ACS), it still provides the most uniform measure of affordability at the tract level. We intend to update our analysis with data from the 2016-2020 ACS, which we understand will form the basis of the next iteration of the CPD program.
- Realizing that every tract has households spending more than 30 percent of income on housing – meaning it's a ubiquitous condition – we wanted to call out those tracts that had the highest share of households experiencing a cost burden. For us, that turned our focus to tracts that had half or more of their households exceeding the 30 percent

threshold. We classified these tracts as our 'most cost burdened' communities and they included the following nine tracts:

- Census Tract 1403.00 – Town of Poughkeepsie (Arlington)
- Census Tract 1600.05 – Village of Rhinebeck
- Census Tract 2101.01 – City of Beacon (northside)
- Census Tract 2201.00 – City of Poughkeepsie
- Census Tract 2202.01 – City of Poughkeepsie
- Census Tract 2203.00 – City of Poughkeepsie
- Census Tract 2208.01 – City of Poughkeepsie
- Census Tract 2209.01 – City of Poughkeepsie
- Census Tract 2211.00 – City of Poughkeepsie

- We mapped the CPD's cost burden data, which you can see on the Barriers to Basic Needs map. We then overlayed the mapping work done for the Barriers to Safe Access and Reliable Access analyses to identify any connections between our most cost burdened communities and transportation barriers. We describe the results of the analysis in the plan, but in summary, we found a range of access barriers in these communities.
- Though we did not fully describe it in the plan, we also looked at HUD's Location Affordability Index to assess housing affordability. This model uses 2012-2016 ACS data to estimate housing costs, though it does so from the perspective of eight predefined family types (e.g. working individual, moderate-income family, etc.). The Index also estimates transportation costs, and combined with housing costs, and tries to show a more complete picture of affordability in an area.
    - We initially thought that this might be a useful tool for our look at housing, but we found the focus on the eight family categories too specific for this plan (and frankly, too difficult to explain to the public). We also noticed that the affordability data for Dutchess County was being measured in the context of the greater New York City metropolitan area, which we felt skewed the results.
    - Regardless, the Index did provide insight on how affordability relates to family type, and it showed that every Census tract in Dutchess County had a housing cost burden for at least one family type. Three family types in particular – single-parents, retired couples, and very low-income individuals – experienced housing cost burdens in most, if not all, parts of the county.
    - We'll continue to monitor the utility of the Index for other planning purposes such as County Planning's housing initiative.

Barriers to Jobs:

- We relied on data from the Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) program to understand where jobs were located in Dutchess County. This dataset provides basic information about employers, such as the total number of jobs and their industry classification. It also provides the locations of these employers, which we used to find job centers and clusters and to help identify potential access barriers. Two downsides with the data is the exclusion of self-employed persons and the grouping of employees at administrative headquarters (the latter can mask the true location of job sites).
- For the plan, we used the 2018 LEHD dataset that was released in December 2020, and extracted the geographic data from the Census Bureau's On The Map portal.
- After importing the data into our local GIS programs, we performed a general quality check of the point locations and attributes, particularly focusing on the geographical accuracy of known job centers (major employers like Global Foundries in East Fishkill). We found that some points were not actually located at known job sites. Based on our research, this is not uncommon, as the Census Bureau uses data suppression tools to protect employer privacy. Understanding this, and to not confuse the public, we chose to use a job density heat map to show job data.
- Since the density map lends itself to an area level analysis, we did not perform a street-level, proximity type of analysis as done in the Education, Goods & Services, and Recreation sections. But the heat map did allow us to capture both job centers – places with large single employers, and job clusters – places with many small employers.
- Much like the housing analysis, we overlayered our analyses of transportation safety and reliability data to see if there were any access barriers to jobs. And much like our look at housing, we found job locations that had a range of safety and reliability barriers.