COMMUNITY LIFT

MEMPHIS NEIGHBORHOOD DASHBOARD: INDICATORS FOR TRACKING CHANGE

JULY 2020 // PREPARED BY RICARDO SALAS MURILLO
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This report is the culmination of my two-month internship with Community LIFT and its affiliate organization River City Capital (RCC) in the summer of 2020. Its primary purpose is to propose six statistics—e.g., average age, percent of a certain race—that may be used as primary measures of neighborhood conditions in the Memphis area. In proposing this list, it is expected that each “neighborhood indicator” may be tracked at least annually by Community LIFT as well as other local partners within a dashboard format produced by an organization with the appropriate technological capacities. They may then use said dashboard in a transactional manner for strategic purposes including assessment of past trends, depiction of current realities, and decision-making for future goals and outcomes.

The recommendations presented in this report are not only research-driven but also place-based and stakeholder-guided as several factors were assessed when considering statistics for recommendation. The first section of this report focuses on “indicators” themselves and provides insight into the most effective forms of presenting data. It also provides guidelines as to how indictors were chosen for recommendation in this report. The second section focuses on the data environment in Memphis itself and speaks to the place-based nature of the report’s results. It provides an overview of the current data being captured in the area as well as its accessibility through data tools provided by local agencies. The third section addresses stakeholder preferences. This section summarizes findings from interviews conducted with the leaders of local community organizations and assesses them. The fourth section of this report provides the proposed list of statistics as well as the implications for each of them at the neighborhood level. In this way, comprehensiveness is addressed to show how useful each indicator
provides insight into local issues. Finally, the last section provides a set of recommendations for future efforts related to neighborhood indicators.

My hopes are that the findings and recommendations in this report may contribute to the current discussion happening in the Memphis community surrounding data capturing and use. Throughout the course of my research, it became clear that community organizations rely heavily on conversational information when tracking community conditions. While this form of information is valuable in its own ways, there is a lack of capacity dedicated to data analysis among community organizations. As a result, there is minimal awareness of data access in Memphis despite there being several sources of data available in the area. Therefore, I hope this report increases knowledge and awareness of data alongside the main goals and eventual dashboard that may come out of its contents.
Any informed policy decision—whether made for government, non-profit, or private organizational purposes—requires knowledge of conditions relevant to the issue being addressed. Similarly, community activists use contextual knowledge by disseminating it to others; in this manner, they mobilize opinions in an effort to produce social change. Such knowledge comes in two primary forms: qualitative and quantitative data.

Qualitative data is descriptive information that oftentimes assesses phenomena through the “meanings people bring to them” (Denzin and Lincoln, 1994). It is used to understand conditions that cannot be measure numerically and is mostly captured through unstructured interviewing that allows for open responses—e.g. conversations with residents in an area. There is value in this type of data as it allows users to see an insider’s view on a topic and find nuances in their perspective that are often missed. On the other hand, because of the subjective nature of qualitative data, it is difficult to consider this type of data reliable and valid within conventional standards. For example, if a small group of people living in a neighborhood are asked what they opinions
are on a certain topic, the same exact opinions cannot be reproduced by asking another small group of people living in the same area. Therefore, it is easy to argue that qualitative data may be biased by respondent preferences and priorities.

As the antithesis of qualitative data, quantitative data is numeric in nature. Conventionally known as statistics, this form of information is measured in units and often put in categories or placed in a ranking order to establish “general laws of behavior and phenomenon across different settings/contexts” (McLeod, 2019). The main value of quantitative data is in its objective nature. Since this form of data is measured in standardized units and its analysis is dependent on standardized methods, it is less subject to ambiguity and interpretation. Quantitative results are, therefore, consistent and can be replicated. In terms of weaknesses, quantitative data may miss complexities and nuances in context that are inherent in qualitative data. Furthermore, this type of data can be easily biased by poor application. For example, overly complicated statistical representations can compromise the objective nature of quantitative data; complexity may cause confusion and lead to subjective interpretations. It is important to understand this as indicators fall within the category of quantitative data; therefore, basic knowledge of data types along with their strengths and limitations inform the importance and use of indicators.

What are Indicators?

Indicators are bits of information about a larger system that cannot be measured directly; thus, neighborhood indicators are statistics about neighborhood well-being despite it being directly unmeasurable. Yet while there is a wide array of statistics that can be used to describe conditions in a community, not all can be considered indicators. Thomas G. Kingsley of the Urban Institute describes two major defining characteristics of indicators in his guidebook for neighborhood indicators. The first of these is that indicators must be measured and represented in consistent terms that can be compared over different settings, i.e., time periods and places. The second is that indicators are selected for tracking because they are relevant to significant community values and goals (1999). Without these characteristics, neighborhood indicators fail to represent a community effectively.
The first characteristic addressed above speaks to why indicators must be quantitative in nature; quantitative data’s objectivity is essential for indicator system’s comparability. Without standardized measuring and analysis between settings, aspects of a community cannot be compared to themselves in different time periods to assess progress, and they cannot be compared to others in better or worse conditions in order to gauge an idea of relative well-being. More specifically, for the purpose of comparison with others, indicators are often represented as rates or percentages instead of absolute values, i.e., total counts (Kingsley, 1999). For example, the total number of people living under the poverty line in an area cannot be effectively compared to the total. A larger area may have more people living in poverty based on the sole fact that they have a larger population. Therefore, it is more effective to measure poverty density in an area by measuring the percentage of the population under the poverty line or the number people living in poverty per thousand people of the total population. This is not to say that other types of statistics are completely disqualified from being indicators.

The second characteristic provides some insight into how indicators may be chosen for tracking. A widely accepted belief among data analysts is that there is no one “correct” list of indicators (Kingsley, 1999). Therefore, because indicators reflect community values and goals, a bottom-up approach is usually employed when making indicator lists. This means that stakeholders—i.e. those expected to use and benefit from the indicators—are asked to provide input in the selection process. In this manner, community values are assessed directly from the source; furthermore, nuances in immediate policy concerns and data needs that may differ between cities are revealed through this process. For the purposes of this report, this method is also employed and addressed in a later section.

*Criteria for Selection*

Beyond stakeholder input, best practices dictate that certain criteria be used when selecting indicators. Generally, these criteria are as follows (Kingsley, 1999; Hollander 2002; Phillips, 2002):

1) Validity: Does the indicator accurately portray the current realities of an area? Is the indicator based on sound data?
2) Reliability: Is the indicator being measured every year? Are the same methods being used?
3) Relevance: Does the indicator represent the priorities of a community? Are important issues addressed by the indicator?
4) Comprehensiveness: Does the indicator represent many parts of an issue as to reduce the need for more statistics?
5) Accessibility: Can the data used for the indicator be easily captured? Is it accessibly through current resources?
6) Simplicity: Can the indicator be easily understood by all members of the community?

In making recommendations, this report equips these criteria. In particularly, accessibility, relevance, and comprehensiveness are extensively addressed for several reasons. Given that data capturing efforts can be costly at times, accessibility is addressed to ensure proposed indicators can actually be tracked given the current capacities dedicated to data in Memphis. Relevance is then a major focus as to ensure that the primary issues prioritized by Memphis' neighborhoods are sufficiently reflected in the data. Related to this point, comprehensiveness is finally addressed to ensure that the small list of indicators recommended has high explanatory power when addressing community circumstances. From these critical factors, it is expected that six indicators—rather than dozens of indicators as equipped in other cities—can effectively provide an overview of neighborhood conditions.
Section 2:

LOCAL CONTEXT

Many major cities across the United States have well-established organizations dedicated to data capturing and dissemination. Many of these “data intermediaries” were created decades ago in an effort to democratize information across their respective cities so that the government, community organization, and individuals may have easy access to neighborhood-level statistics and indicator systems. Unfortunately, the same is not true in Memphis; the local data atmosphere is behind on such efforts. An official data intermediary is currently not present in Memphis, and because of it, community development efforts fail to use indicators at the same rate as other cities.

Despite the lack of an official data intermediary, quantitative data is quite accessible in Memphis. There are many sources of data that are currently untapped for community development purposes. These sources are assessed below to better understand data accessibility in Memphis. Furthermore, current local efforts to democratize data like those of data intermediaries are also assessed as they may be useful for immediate tracking of the recommended indicators in this report—at least until a formal dashboard is created for quicker indicator use.
Data Sources

Oftentimes, the neighborhood information used by data intermediaries across the nation come from two primary sources; they are government departments—both at the city and state level—and the US Census Bureau. For the indicators proposed in this report, the same holds true as these are the main sources that are necessary to calculate relevant statistics for tracking. Keeping this in mind, it is worth noting that there are other sources in the area that can also be used for indicators and should be in the future when capacities allow for an expanded indicator system. These additional data sources include utility providers such as Memphis Light, Gas, and Water (MLGW) which provides data on utility consumption and the University of Memphis’ Center for Applied Earth Science and Engineering Research (CAESER) which provides data on local environmental issues.

For the most part, government departments provide data specific to their specialties; thus, most of this data is related to government services and assets. A convenient tool that can be used to access this data at the city level is the Memphis Data Hub provided by the City of Memphis. Totals on government projects, crime, and code enforcement are all available through this tool with geographic mapping included, making it a very accessible data source. Beyond that, a few Tennessee state departments provide public data on their websites at a larger scale. In particular, the Department of Education and the Department of Health have quantitative data sets related to the issues they work on that can be modified to serve indicator needs.

Beyond just government-related data, the US Census Bureau provides data useful at the neighborhood level through its American Community Survey (ACS). This survey is a nationwide effort to attain data on a wide range of topics including employment, education attainment, and housing. The only downside to the ACS is that it only provides estimated statistics for the topics it covers. This is due to the sheer scope of the ACS. Since it is nearly impossible to conduct surveys on every household in the US as the decennial census does, the ACS equips random sampling when surveying households. The US Census Bureau then compiles the random sample of the most recent year’s survey with those of the previous four years to calculate an annual estimate with some margin of error; for example, the most recent estimate takes data from 2014-2018. Despite this, the ACS’
accessibility trumps its validity as the survey’s estimates are a standard among other cities’ indicator systems. Because many of these cities do not have enough funding and capacity to conduct their own local community surveys, they compromise by using the ACS. Yet, if available, local data is always preferred to ACS data.

Other federal agencies may also track data at the census track level that may overlap with such found in the ACS. The US Bureau of Labor Statistics (BLS) is one worth noting as it provides on topics like unemployment. While these data sources may define their data in a slightly different way than the ACS, they should be considered when creating an indicator system.

Local Indicator Tools

While an official data intermediary is not present in Memphis, there are already some efforts being made to provide indicator systems in the area. Despite this, a few individuals expressed that they have not seen any data on the issues they prioritize when speaking to those engaging in community development efforts. Therefore, it is worth noting the indicator tools currently available in Memphis to raise awareness of their usefulness. Furthermore, they may be beneficial to use in the meantime while a simpler dashboard is not available.

Memphis Property Hub:
Innovate Memphis—a nonprofit dedicated to community development strategizing—currently provides a hub for property data in Memphis. It contains data on property ownership, vacancy and code violations, land use, and property sales and presents it geographically and through other visuals. Furthermore, the property hub provides listings of each individual parcel in the city of Memphis so that individuals can get a in-depth look at property circumstances in an area. While the ACS also provides data on many of the issues covered in this indicator tool, the Memphis Property Hub’s data is unique as it is locally captured. Innovate Memphis compiles data from CEASAR, local government departments, the US Postal Service, and MLGW into a local property index in order to provide its data. Therefore, statistics in this system are more reliable than those provided by the US Census Bureau.
LIVEGIVEmidsouth:
Provided by the Community Foundation of Greater Memphis, LIVEGIVEmidsouth (LiveGive) is an initiative focused on providing neighborhood indicators and nonprofit information to philanthropists in the greater Memphis area. In its current state, this system most closely resembles the indicator systems provided by data intermediaries nationwide. Like many other cities’ indicator systems, LiveGive provides a robust catalog of statistics, including a total of 188 indictors including most of the indictors proposed in this report. Despite this, for the most part, LiveGive’s indicator system goes unused by the government and others engaged in community development. This may be because of the robust nature of LiveGive’s system; it may be daunting to use, especially for organizations and individuals with little to no experience using quantitative data.
Section 3: Stakeholder Input

As expressed previously, stakeholders usually play a significant role in building indicator lists. They provide insight into a community's priorities, which in turn speaks to the relevance of indicators. But who is actually considered a stakeholder? Generally, government actors, community organizations, community leaders, and residents themselves can be considered stakeholders as they can gain knowledge from neighborhood indicators and use for their own policy decisions or advocacy thereof. The dashboard that may be produced from this report's recommendations is expected to be used by all said stakeholders. For that reason, this report aims to use stakeholder input gathered from interviews to inform its recommendations. Despite this, it is important to note that there are limitations to this aspect of the report's research.

Due to the limited timeframe of my internship and difficulties with unresponsive organizations, only a small sample of stakeholders were interviewed for this report. These stakeholders were primarily representatives from organizations within Community LIFT's network—i.e. current and former grantees of the CDC Capacity Fund and other partners—as these organizations were easiest to connect with.
using available resources. Therefore, government actors and, more importantly, residents are not directly involved in this section's assessment of community priorities. Despite this limitation, many of the organizations interviewed actively engage the residents in the communities they serve; resident volunteers work on their projects, participate in their programming, and are involved in setting organizational goals. As a result, community organizations indirectly provide insight into the values of residents. In the future, it may be useful to do further research on resident preferences, but such efforts may be costly as extensive surveying and townhalls may be necessary to accomplish this. Therefore, in the meantime, community organization input is a cost-effective means of assessing community values.

A list of the organizations involved in the interview process is provided below. Additionally, the communities they serve are listed as to give an idea of the areas of Memphis that are represented.

<table>
<thead>
<tr>
<th>NAME OF ORGANIZATION</th>
<th>NEIGHBORHOOD SERVED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center for Transforming Communities</td>
<td>Unaffiliated</td>
</tr>
<tr>
<td>Frayser CDC</td>
<td>Frayser</td>
</tr>
<tr>
<td>The Heights CDC</td>
<td>The Heights</td>
</tr>
<tr>
<td>Jacob’s Ladder</td>
<td>Belt Line</td>
</tr>
<tr>
<td>Klondike Smokey City CDC</td>
<td>Klondike + Smokey City</td>
</tr>
<tr>
<td>Lemoyn-Owen College CDC</td>
<td>Sodaville</td>
</tr>
<tr>
<td>Oasis of Hope</td>
<td>Hickford</td>
</tr>
<tr>
<td>Raleigh CDC</td>
<td>Raleigh</td>
</tr>
<tr>
<td>South Memphis Alliance</td>
<td>South Memphis</td>
</tr>
<tr>
<td>United Housing</td>
<td>Unaffiliated</td>
</tr>
<tr>
<td>Victorian Village Inc.</td>
<td>Victorian Village (Medical District)</td>
</tr>
</tbody>
</table>
Research Methodology

Interviews with organization representatives were conducted over a three-week period at the end of June and beginning of July in 2020. They were done in conjunction with check-ins meetings being conducted by Community LIFT at the time to assess the wellbeing of these organizations during the COVID-19 pandemic. The first half of these meetings would be dedicated to checking in organizations, and the second would be dedicated to the interviews assessed in this report.

Two primary questions were asked during each interview. The first of these asked what type of data or statistics were currently being used by each organization for its own strategic purposes. This was aimed to get an idea of community organizations’ data capacities as well as to find trends in which types of data were currently prioritized for neighborhood assessment. The second question asked what types of data each organization would like to see in a dashboard based on their priorities and needs. Similar to the first question, this question also aimed to find trends in data priorities but, in this case, without accounting for capacity constraints. After all interviews were conducted, it was apparent that responses were broad in scope, and as a result, they were hard to assess for trends. Consequently, they were sorted into data categories commonly used by neighborhood data analysts and visualized below to allow easier analysis. The categories are as follows:

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial/Banking</td>
<td>Loans Granted, Debt per Capita</td>
</tr>
<tr>
<td>Commercial</td>
<td>Small Businesses, Tourism Density</td>
</tr>
<tr>
<td>Crime</td>
<td>Violent Crime, Non-Violent Crime</td>
</tr>
<tr>
<td>Education</td>
<td>School Performance, Degree Attainment</td>
</tr>
<tr>
<td>Employment/Jobs</td>
<td>Unemployment, Income, Job Availability</td>
</tr>
<tr>
<td>Housing</td>
<td>Affordable Housing, Homeownership, Rentals</td>
</tr>
<tr>
<td>Medical</td>
<td>Emergency Medical Incidents</td>
</tr>
<tr>
<td>Property</td>
<td>Foreclosures, Vacancy, Blight</td>
</tr>
<tr>
<td>Transportation/Accessibility</td>
<td>Walkability, Food Access</td>
</tr>
</tbody>
</table>
Results

The graph displayed below shows categorized responses for both questions asked during interviews. It is important to note before examination that a majority of the organizations represented above expressed having minimal data capturing and analysis capabilities. Many of these organizations also expressed that they mainly use qualitative data captured from program participants when assessing community wellbeing. This data is not represented above as the interest of this report is in quantitative data. Furthermore, many organizations expressed using demographic data, which is also excluded in the graphic above. While this data is useful for understanding population compositions and easily accessible through the census, it does not provide insight to the issues affecting a community. Therefore, it is not an effective indicator. With this in mind, responses for this question were still broad in scope, showing that a wide range of issues are represented by current data use.
When assessing responses to the question on current data use, property-related data was at the forefront while housing and employment/job data were close behind. This is no surprise considering the findings of the Memphis Community Development Corporation (CDC) Industry Report commissioned by Community LIFT in 2016. In this report, researchers noted that, while CDC’s are multifaceted in their community development efforts, a majority of their efforts lie within the field of housing and real estate. This aspect of community organizations is clearly represented above as their data use reflects organizational priorities. Additionally, crime-related data and financial/banking data were also used at somewhat noticeable rates by community organizations while educational and medical data were entirely unused.

In terms of responses to the question on data organizations would like to see, employment/job data was the most common response by far. Furthermore, considering its prominence in the last question, it was the category with the most overall responses. This is an interesting finding when considering that the CDC report previously mentioned also discovered that a minority of community development efforts are dedicated to workforce and economic development. This suggests that residents’ individual economic well-being is the most prioritized issue among community organizations despite there being limitations to community efforts on the issue. Beyond just employment and jobs, education was the category with the second most frequent responses, showing a clear distinction from responses on current data use. Given this difference, there is a clear gap between current data use and data needs on the topic that should be filled.

Overall, while responses to interviews were mixed, the categories mentioned above stood out amongst the others. As such, this report primarily considers them for its recommendation of indicators. In the future though, it may be useful to consider all the data categories depicted above for a larger data system. While they are not currently as relevant as other issues, data on medical information, transportation, and commerce have value and should be more closely tracked in the future.
Section 4:

PROPOSED INDICATORS

The indicators recommended below by no means represent a complete or perfect indicator list, yet they are useful and relevant statistics given the preferences described in the previous section. They are also very comprehensive metrics as this section primarily addresses the many implications of each indicator. Overall, these indicators fall under the categories of employment/jobs, property, housing, and education as stakeholder responses described previously show that data on these topics are prioritized. Furthermore, within each category, the indicators recommended are consistently present in other cities’ indicator systems. As such, they are standard metrics that are easily recognizable and understood.

It is worth noting that, while crime and financial/banking related data were also prominent in interview responses, statistics in these categories are not represented below as they fail to meet certain criteria for indicators. More
specifically, crime statistics lack validity and comprehensiveness while financial/banking statistics lack accessibility. In terms of crime-related data, the only sources of such statistics in Memphis are those provided by the city through police crime reports. Historically, such data has been unreliable across the US as reported crime in not indicative of all crime in an area; victim underreporting, police discretion, and trends of under and over-policing all contribute to invalid statistics (Mosher, 2011). Furthermore, crime is often caused by other issues in a community. These include poor housing and overall disinvestment, so it is more useful to measure those more comprehensive issues rather than crime itself. Regarding financial/banking statistics, residents’ personal finances—such as measures of debt—are only accessible through surveying currently not employed in Memphis, so statistics in this category are disqualified from being indicators.

Indicators

Unemployment Rate:
Stakeholders have a clear preference for data related to employment and jobs, so a self-evident indicator to use within the field is unemployment rate. Often used as an indicator at the national level, unemployment rate is a statistic commonly used to describe economic wellbeing. It is measured as the percent of the total labor force—individuals older than 16 who have or are seeking employment—that is currently without a job. At the neighborhood level, this statistic provides insight as to how well the local economy is providing jobs to residents, and even if individuals are leaving the area for work, it still speaks to how well local resources are preparing residents to participate in the workforce.

Beyond economic well-being, there are several indirect implications to unemployment rate that make it a comprehensive indicator of neighborhood well-being. When it comes to individuals, unemployment has often been linked to adverse health outcomes as those who are unemployed experience higher risk of stress-related conditions and depression (Mckee-Ryan, 2005). At a larger scale, high unemployment also correlates with increased crime although evidence on direct effects are mixed. In particular, increased property crime is often associated with high unemployment (Aaltonen, 2013). This is significant to Memphis communities as issues related to property are also of high priority among stakeholders.
Median Household Income:
Also considered an indicator of economic wellbeing, median household income is the most common statistic used to measure incomes in an area. Rather than a percentage, this statistic is the midpoint value of all household incomes--total income of all individuals 15 years or older living together--in an area. This means that half of all households in an area are above this value, and the other half is below--including households with zero total income. The median is used in this case as this form of information does not fit the format of a percentage. Furthermore, averages are not used as extreme values easily skew them; one wealthy household may make an area's average unrepresentative of actual conditions.

The main reason why median household income is a recommended indicator--rather than any other measure of incomes--is due to its accessibility. In interviews, stakeholders made it clear that they wanted data on incomes, yet not all metrics of income are equal. Due to current data capturing efforts at small geographic scales, data on household income is the only type of income data being captured; data on personal incomes is very uncommon. Despite this, median household income is still a useful metric at the neighborhood level as it provides insight to residents' economic stability. A higher median household income suggests a majority of individuals in the area have enough wealth to sustain a high quality of life. Furthermore, household income positively correlates with education attainment and quality of jobs in an area, thus giving it high explanatory power.

Percent of Homeownership:
When it comes to living situations, a common American ideal is that individuals own their own homes. In conversations with stakeholders, the same held true as data on homeownership was a common response within the housing category. Although a bit self-explanatory, percent homeownership is the proportion of total housing units in an area that is currently occupied by the owner. As such, it is a valuable metric at the neighborhood level that is relevant to community ideals. Furthermore, while mortgages and home maintenance may impose financial burdens on individuals, percent of homeownership generally speaks to the financial achievement of residents in an area. Homeowners typically benefit from wealth accumulation as their homes contribute to net worth (Yun, 2016).
Homeownership also has effects on another large issue that is heavily prioritized in Memphis and among community development efforts, blight. When a person buys a home, they choose to invest in the community they live in. Homeowners are, thus, inclined to support and participate in neighborhood maintenance and beautification. This community engagement may then lead to reduced blight in an area and overall residential stability. Additionally, homeownership is often linked to increased civic engagement and voting (Yun, 2016). This is particularly beneficial at the neighborhood level as a large community voter base may influence greater government efforts for investment and development in the area.

Median Gross Rent:
On the opposite side of housing, rentals are also an important aspect of a neighborhood that should be considered when looking at housing data. Despite this, it is a bit redundant to use percent of rentals as an indicator when percent of homeownership is already being tracked; rental density is already represented in this statistic as it is the remaining percent of housing units in the area. Considering this, it is more useful to measure the cost of rentals in neighborhoods. Similar to median household income, median gross rent is the midpoint value of all gross rent—contract rent plus the estimated average monthly cost of all utilities—in an area. Again, the median is used here to provide a metric free from skewing that represents actual neighborhood conditions.

As rental property is a flexible and financially suitable option for many households, median gross rent provides insight into how accessible this type of housing is in an area. High median gross rent indicates that an area lacks affordable housing. Furthermore, it may suggests that a large portion of residents in the area may be experiencing rent burden—i.e. rental costs make up a significant portion of their income. This is especially important to consider in low-income neighborhoods as rent burden may contribute to several issues that stagger the quality of life of residents. In particular, a report from the Pew Charitable Trust found that those who experience rental burden find it hard to accumulate savings and transition to homeownership. This may then lead to a poor quality of life for residents and susceptibility to economic crisis.
Vacancy Rate:
Percent of vacancy—or in simpler terms vacancy rate—is the percentage of property parcels in an area that are unoccupied by both residents and businesses. This statistic is most indicative of disinvestment as vacancy is a direct result of underdevelopment in an area. Furthermore, vacancy may also speak to the displacement of a community’s residents as vacancy is often the result of foreclosures and home loss. Out of all the indicators proposed in this report, vacancy rate is the least commonly used around the nation, yet it is a necessary indicator given that many issues related to vacancy are prevalent in Memphis and its neighborhoods. Moreover, since CDC efforts are closely tied to neighborhood reinvestment, vacancy is overall the most relevant indicator one can use when considering local contexts.

In terms of issues related to vacancy, blight is the obvious one that comes to mind. Disinvestment in a community is visually omnipresent when a large portion of properties are blighted. Unfortunately, this is the case in many local, low-income neighborhoods with high vacancies. As a result, residents in the area lose their sense of pride for their community, leading to further adverse effects. The most common of these is crime as vacant property serves as an unsupervised safe haven for illicit activity. This phenomenon is known as the “broken windows theory” which suggests that signals one sign of disorder—for instance a broken window in a blighted property—will encourage further disorder (Kelling, 2020).

High Schools Graduation Rate:
Education is an important factor in both individual and community wellbeing for several reasons. At the individual level, educated persons often enjoy higher lifelong earnings than those who are not, and at a larger scale, communities with more-educated citizens often have greater productivity and economic growth. In general, most indicator systems in other cities track education attainment at the neighborhood level, yet many of the benefits of education attainment—e.g. accessibility to employment and high incomes—are already addressed by other proposed indicators. Therefore, it may be more useful to track education performance as youth development and wellbeing is often an undisputed community value.
Tennessee's Department of Education provides data on all of its schools with topics ranging from third grade reading math proficiencies to school absenteeism to high school graduation. With this in mind, there are many ways of tracking school performance, yet high school graduation rate–i.e. the percent of students enrolled at high schools that receive their diploma–does have implications to all grade levels. Research has shown that graduation rates are not only depend on the quality of high schools. Favorable high school graduation rates are linked to both early literacy and grade proficiency which speak to the performance of schools at lower levels (McCoy, 2017). Thus, high school graduation rate speaks to the overall education experience of students, not just how well high schools are able retain their students and prepare them to fulfill graduation requirements.

Sources

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>SOURCE</th>
<th>DATA TOOL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unemployment Rate</td>
<td>American Community Survey</td>
<td>LiveGive</td>
</tr>
<tr>
<td>Median Household Income</td>
<td>American Community Survey</td>
<td>LiveGive</td>
</tr>
<tr>
<td>Percent Homeownership</td>
<td>Local Property Index*</td>
<td>Memphis Property Hub</td>
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<td>Median Gross Rent</td>
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<tr>
<td>Vacancy Rate</td>
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</tr>
<tr>
<td>High School Graduation Rate</td>
<td>Tennessee Dept. of Education</td>
<td>None</td>
</tr>
</tbody>
</table>

The table above show sources and available data tools that can be used to track the indicators recommended above. It is important to note that the sources with asterisks (*) next to them can be interchangeable with the American Community Survey. Despite this, it is best to use the data provided locally as it is more valid than neighborhood level data provided by the US Census Bureau.
Section 5:

OTHER RECOMMENDATIONS

1) Designate an Official Data Intermediary for Community Development

In order to establish a dashboard with the indicators recommended in this report, an organization with the technological capacities must make, upkeep, and provide it to stakeholders. The need for such an organization serves as the perfect opportunity to elect an official data intermediary for community development in Memphis. In this manner, the Bluff city may follow other cities’ footsteps with the aim of standardizing data use throughout the city’s community development efforts. This may then encourage more widespread use of said dashboard and other local data.
In the past, data intermediary designation has been the job of the city government. While this is the case in other cities, this need not be the case in Memphis. The city government should be involved in this process, but if not, it is also reasonable for CDCs and other working in the community development field to elect their own data intermediary as long as the process is democratic. If the greater Memphis community is involved and on the same page, any elected intermediary will have facilitated commitment from partner organizations and those wishing to use data provided.

2) Standardize Neighborhood Geography for Adequate Indicator Use

Indicator systems require standardized geography in order to be effectively used. Without uniform boundaries, indicator data can be skewed by geographic and population inconsistencies. As of now, Memphis does not have a standard map of its neighborhoods, and many community organizations define the communities they serve with inconsistent boundaries. Therefore, it may be of use to consider creating a boundary map of neighborhoods in Memphis. In their current state, if neighborhood boundaries overlap, any indicator system will fail at being comparable due to duplication of sample groups—i.e. a group of people may be counted twice in two different areas.

Though this may be difficult given how community organizations define themselves. An alternative approach may also be to equip software that allows users to create their own geographic boundaries when assessing indicators, but such technology may be costly. Both should be considered by the appointed data intermediary, so they may make a decision that fits their capabilities.

3) Use Comprehensive Interface for a Dashboard

To ensure easy use, any dashboard that may be produced from this report’s contents should focus on providing a comprehensive interface. Examples of such interface are widespread throughout the many indicator systems available in other US cities; the one depicted below is from the Kinder Institute’s Houston Community Data Connections. An interface like this may encourage frequent use from community organizations and others as it requires low effort and capacity to use.
4) Produce More Dashboards Specific to Data Categories in the Future

The six indicators provided in this report should only be considered a starting point for a larger indicator system. However, continued use of the dashboard format may be useful for future data expansion efforts. Dashboards specific to housing, property, employment, etc. could be produced in a continued effort to provide Memphis simple data overviews. This may also contribute to greater data use by local community development organizations.
Works Cited


