



Summarizing Arts Indicators

June 2022

In the last five years, communities in Metro Boston have invested resources into growing and supporting arts and culture to support a vibrant and active public realm, local economic activity, and community well-being. The Arts & Culture Department at the Metropolitan Area Planning Council (MAPC) has supported this investment through technical assistance for cultural district planning, cultural asset mapping, and creative placemaking. This work has illustrated challenges associated with tracking the impact of strategies to support arts and culture locally through consistent data collection and analysis.

The REVIVE project started in 2019 and initially grew out of an effort to support local communities engaged in arts and culture planning to access existing data and develop tools and strategies to support the collection and management of local data. With the arrival of the Covid-19 pandemic and the near-total shutdown of arts and culture activity in 2020, the project shifted to document the impact of the pandemic on artists and local communities and identify strategies to support resilience and a recovery that would promote safe reopening for artists and the general public. Four municipal partners guided this project: Arlington, Beverly, Boston, and Franklin, Massachusetts.

www.mapc.org/arts-indicators



Using Data to tell a story

After the completion of a needs survey in early 2021, MAPC developed recommendations for how municipalities can strengthen recovery for the arts and culture sector locally and engage artists in broader community economic recovery initiatives. These recommendations can be found on the project [website](#), and fall under five categories:

- Provide Culturally-Inclusive Access
- Foster Partnerships to Increase Capacity
- Offer Transparent & Efficient Permitting
- Build Municipal Support Capacity
- Improve Access to Public Outdoor Venues, and
- Establish Clear & Consistent Public Health Protocols

Following the publication of these recommendations [document](#), MAPC staff focused on assembling data sources that aligned with municipal indicators of a thriving arts and culture sector documented in prior studies and guidance published by Americans for the Arts' Local Arts Index and the Canadian Urban Institute.

This document summarizes the data categories and indicators included in the final dataset shared with project partners as the culmination of the first phase of this work. Future phases will explore opportunities to expand the published data to include data from more sources and opportunities to enhance or update the data through integrated tools that can be used by municipal partners.

Local Data Needs

Data on the economic impact of arts and culture has been a critical driver of arts advocacy and policy changes to help the arts and culture sector thrive. Much of this data is aggregated to state-wide geographic scales or multi-state regions. The smallest geography available for many data sources is the county level, which can function as a proxy for major metropolitan areas, but for most municipalities, county-level data is not helpful to inform local planning efforts. Middlesex County, for example, includes thirteen cities and forty-one towns. At the local level, municipalities increasingly recognize the creative community as a promising partner for planning initiatives but struggle to identify and connect with the community at the local level or to measure the impact of arts and culture on local planning outcomes.

Below is a summary of data that was collected, the rationale for selecting the data, and descriptions of the limitations and opportunities to use the data at the municipal level. Although the REVIVE Local Arts Indicators focused on the four municipalities, data was assembled for all Massachusetts municipalities where possible, and other jurisdictions can use the data sets to make informed decisions about their arts and culture planning work.

Data Categories

Our goal in the project was to collect data relevant to COVID recovery, data to help identify and track the cultural assets in a community and data that could function as a baseline for municipal staff to use in measuring change over time. Below is a summary of the data sets published, a brief discussion of how they might be used, and recommendations on how the published data may be updated.

Category 1: Context

The Context category assembles data about the characteristics of a municipality and the people that live there, helping to describe the similarities and differences within and across municipalities over time. This information provides important background context for the interpretation of data in the Strategy and Indicator categories. It can also be used to identify comparison communities. The breakdown of population by race and ethnicity can provide a benchmark for measuring whether programs, funding, and engagement efforts are representative and inclusive of the local population. Datasets that could be added in the future include data on languages spoken at home and native languages where speakers are less likely to be proficient in English. These data can help direct local resources for targeted outreach using translation and interpretation services.

Given the focus of this project on recovery from the Covid-19 pandemic, the Context category includes a subcategory of data on Covid. This includes data describing impacts of Covid, including case rates, lost income and lost revenue by organizations and creatives within the arts and culture sector. It also includes data on vaccination rates. This data provides an overview of how the public health impacts of Covid-19 manifested at the local level. Differences in vaccination rates across the population can highlight groups that face ongoing vulnerability to Covid-19

and groups that may need additional assistance in accessing local public health services. Data on reported income lost provides a snapshot of the direct impact to artists' livelihoods of the Covid-19 pandemic. Additional data that could be added in the future include Paycheck Protection Program loans to creative economy enterprises and Shuttered Venue Operator grant funding distributed by the Small Business Association. These datasets can provide an overview of federal recovery dollars that supported local arts, cultural, and creative enterprises during the pandemic.

Category 2: Strategy

Strategies adopted by municipalities to support arts and culture function are included as data in the Strategy category. Published data points in this category reflect funding strategies, such as allocations from the Massachusetts Cultural Council and revenue from Business Improvement Districts. Additional published data points reflect policy and planning strategies, such as the establishment of Cultural Districts and adoption of Artist Live-Work Zoning.

Collectively, data within the Strategy category can be thought of as “inputs” from the municipality and its partners that are expected to advance arts and culture. They can also be used to describe the extent to which municipalities are building up local capacity to support arts and culture. Future development of data within this category will require local support to compile data on local allocations to arts and culture; municipal staffing; and other policy measures adopted to advance arts and culture goals.

Category 3: Indicators

In contrast with the data published in the Context and Strategy categories, Indicators provide an overview of characteristics of the local arts and culture ecosystem and can be used to evaluate whether that ecosystem reflects the goals that the municipality and its partners are hoping to achieve through the inputs catalogued in the Strategy category.

Category 4: Access

The Access category comprises indicators and supporting data that describe how people access arts and culture within municipalities over time. This category describes the activities, places, and spaces where arts and culture are integrated into public life through the subcategory Public Art, Events, and Programs. In addition, the Access category describes the extent to which local arts and

culture assets and activities are inclusive and representative of the community and region through the Public Engagement and Inclusion subcategory.

Access | Public Art, Events, and Programs indicators include

- **Museums**
- **Known Public Art** (Note: We use “Known” here to emphasize that the public art tabulated for this category is only the art that has been recorded by MAPC. We expect the true count of public art to exceed our counts.)
- **Known Arts and Cultural Events** (Note: Again, we use “Known” here to emphasize that the arts and cultural events tabulated for this category are only the events that have been recorded by MAPC. We expect the true number of events to exceed our counts.)
- **Publicly accessible Outdoor Spaces**
- **Sites with Cultural or Historical Significance** (Note: This data is derived from Massachusetts Cultural Resources Information System (MACRIS), which is documented by local historical commissions with support from the Massachusetts Historical Commission.)

Future expansion of the Public Art, Events, and Programs subcategory would ideally include data on arts education offerings and the operating hours of municipally owned arts and cultural facilities, among other metrics.

The second Access subcategory, Public Engagement and Inclusion, attempts to describe the extent to which the public is aware of, able to, and interested in engaging with the public art, events, and programs in the first subcategory.

Access | Public Engagement and Inclusion indicators include

- **Sites with Cultural or Historical Significance, More recently developed**
- **Sites with Cultural or Historical Significance, Ethnic/Social significance**

Published data in this category applies filters to the MACRIS data on sites of cultural or historical significance. Future expansion of the Public Engagement and Inclusion subcategory should establish data points that describe the extent to which art, events, and programs are representative and inclusive, particularly to subpopulations who have historically not been welcomed into these spaces. Locally-collected data on the demographics of event attendance, cultural communities and organizations presenting events, demographics of artists contracted for public art and activities, and data on minority

and women-owned business enterprises (MWBES) in the creative economy could be assembled for this subcategory.

Category 5: Production

The Production category comprises indicators and supporting data that describe the people and organizations generating arts and culture within municipalities over time. As with the Access category, Production has two sub-categories. The first, People, includes data points that help to describe individuals who are producing art and/or working at creative establishments. The second, Organizations, describes the organizational entities in the municipal arts and culture sector.

Production | People indicators include:

- **Known Artists/Creatives** (Note: Counts are derived from survey data and represent the minimum number of self-identified artists reported in a municipality at a specific point in time.)
- **Known Artists/Creatives of Color** (Note: Counts are derived from survey data and represent the minimum number of self-identified artists reported in a municipality at a specific point in time. Categories used in these surveys may not align directly with race and ethnicity reporting methods used in the decennial census.)

- **Income Reported by Known Artists/ Creatives** (See note above. Income questions often ask respondents to identify income brackets rather than report an income amount. This can make direct comparisons across surveys challenging.)
- **Employment at Creative Establishments**
- **Average Annual Wage at Creative Establishments**

Future expansion of this subcategory should include data points that describe the volume and types of housing and workspace accessible to individuals with the published income and wages. It could also include data on access to health insurance and health care, and access to liability insurance.

The subcategory Organizations includes data points that describe organizations and business establishments within the arts and culture sector. This subcategory also includes data points on the spaces available for these organizations to occupy.

Production | Organizations indicators include

- **Creative Establishments**
- **Arts and Cultural Organizations**
- **Performing Arts Companies**
- **Museums** (Note: The Museums indicator also appears in the Access | Public Art, Events, and Programs subcategory. There, it is meant to convey the extent to which

places where the public may access arts and culture are present. In the Production | Organizations category, it is meant to convey the number of institutions present in the municipality which may support other organizations and artists or creatives.

- **Known Arts and Cultural Units (or Spaces)** (Note: This data has been compiled from multiple sources by MAPC. In contrast with the Buildings/ Sites Indicator, the Units/Spaces Indicator describes areas within buildings, such as individual offices and studios.)
- **Known Arts and Cultural Buildings (or Sites)** (Note: This data has been compiled from multiple sources by MAPC).
- **Municipally-owned Venues** In the future, this subcategory would ideally include data points on permitted film and television productions as well. Future enhancements to the data might include audience analysis for the organizations; data on rental rates for spaces, and data on the number of artists engaged by the organizations identified.

Taken together, data in the Production and Access categories provide baseline information on both tangible and intangible arts and culture assets within a municipality. This data can be updated and enhanced through local cultural asset mapping initiatives. This data can also inform efforts to

understand issues of housing affordability for artists and artists' access to workspaces and opportunities to share and disseminate their work.

Category 6: Financial Impact

The Financial Impact category comprises indicators and supporting data that help to describe the overall financial impact of arts and culture within municipalities over time. This category includes data points such as tourism employment and tax revenue.

Financial Impact indicators include

- **Associated Tax Revenue Meals and Rooms Tax; Short-term Rentals**
- **Employment at Creative Establishments** (Note: The Employment at Creative Establishments indicator also appears in the Production | People subcategory. There, it is meant to convey the number of people contributing to the creative economy. Here, it is meant to convey the number of people employed by this sector.)
- **Total Wages in Creative Establishments** (Note: In contrast with the Average Annual Wage at Creative Establishments indicator in the Production | People subcategory, which describe the average amount a person employed at a creative establishment makes during the year, the Total Wages in Creative Establishments describes the amount that all people

employed at creative establishments make over the course of a year.

Data in the financial impact category approximate the arts and culture sector's direct contribution to the economic vitality of a municipality. In the future, the Financial Impact category would include data on sales at creative establishments, the associated tax revenue from those sales, sales at events, and, potentially, an impact multiplier for arts and culture activities on a local economy through indirect and induced spending. (Indirect spending results from businesses purchasing goods and services within the region while induced spending results from employees of these businesses spending part of their income in the region.)



Data Sources

The context data, strategy data, and indicator data described above are supported by a wide variety of data sources. These data sources fall into three broad categories: public data sources, survey data sources, and data developed or assembled by MAPC.

Public Data Sources

Much of the published data, particularly data in the Context category, is sourced from public datasets, such as the U.S. Census American Community Survey (ACS), the Quarterly Census of Wages and Employment, and MassGIS data on protected and recreational open spaces. Most frequently, these data are published to the Revive database exactly as they appear in the source data, though in some instances we took additional steps to derive data we found to be more meaningful. One basic example of this is that we filtered the Massachusetts Cultural Resource Inventory System (MACRIS) data to only include those sites that are not demolished before generating municipal-level counts of sites.

Survey Data Sources

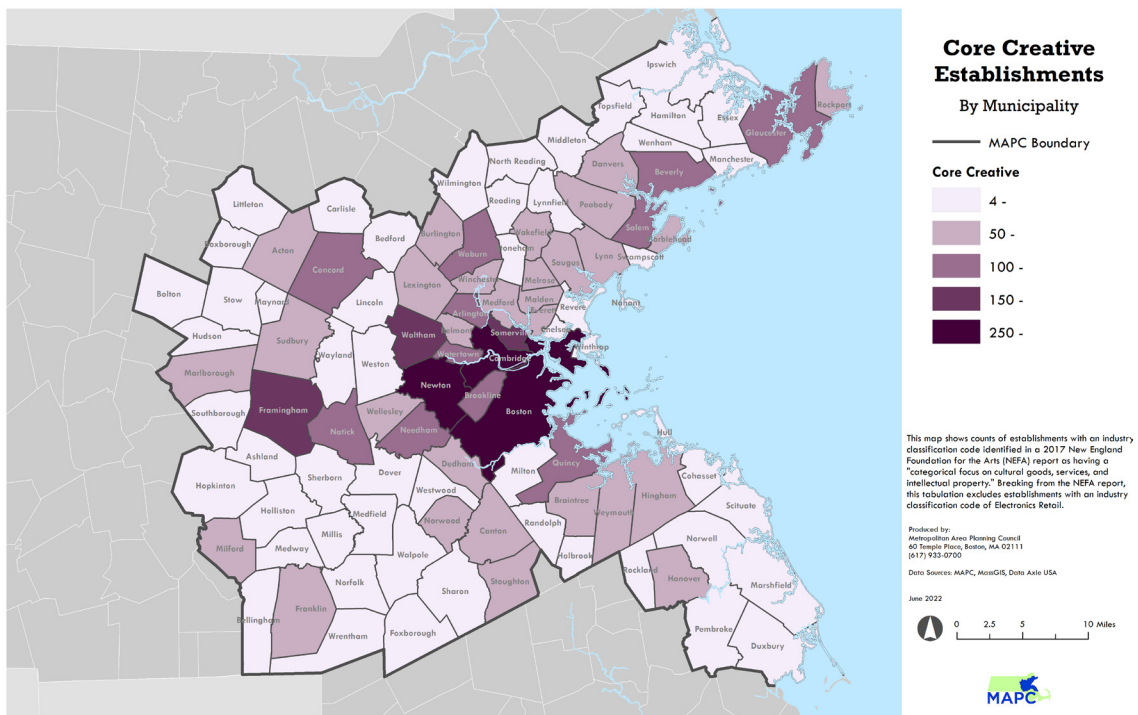
Data published for this project is also sourced from a series of surveys administered by MAPC and its partners. Many of these surveys were prompted by the Covid-19 pandemic; thus, survey data largely supports the Covid subcategory of Context. Survey data also supports indicators in the Production category, such as “Known Artists/Creatives” and the “Income Reported by Known Artists/Creatives.” While survey data provides an incomplete picture for both these indicators, it is the best information we have at present.

One additional challenge with survey data sources in the indicators is the limits of comparing across different surveys. The surveys we were fortunate to access were administered by different partners, at different times, for different purposes, and as such, differed in how survey questions were worded, and, very likely, their response rates and respondents. We combined survey results where we felt it was possible – for example, the “Known Artists/Creatives” indicator references above – but ended

up leaving some data points in their original form. For example, questions about incomes that used different income breaks (i.e., \$20,000 to 29,999 versus \$20,000 to \$34,999).

Data Developed and/or Assembled by MAPC

The final category is data developed and/or assembled by MAPC. One example is the MAPC Creative Economy dataset, which is a data resource describing the quantity and distribution of creative economy establishments throughout the MAPC region. That data was developed by filtering a dataset on business establishments by industry codes associated with the creative economy (based on the New England Foundation for the Arts definition of the creative economy) and generating counts and percentages of establishments at three geographic scales, including the municipal level. This dataset mostly supports indicators in the Production category. A regional map of the relative count of creative establishments by municipality from this dataset is included below.



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Another example is the Arts Strategy database, where the Arts and Culture department has organized information on the existence of Business Improvement Districts (BIDs), Cultural Councils, Cultural Districts, Transformative Development Initiative (TDI) Districts, and zoning districts within each municipality. All this information has been collected manually, during past regional and local planning projects or for this project. In some cases, such as with BIDs and Cultural Councils, this information is known to be comprehensive as of 2022; in other cases, the database is simply a record of what is known at this time.

A second contributing database is the Arts and Cultural Spaces database, which consists of six related tables with information on arts spaces (the rooms, studios, and units within buildings), arts sites (buildings), arts events, and arts organizations. While the database has evolved since its initial development in 2020, the Arts and Cultural Spaces database was originally developed by organizing and standardizing data from four main sources: a list of artist live-work spaces, provided to MAPC by the Massachusetts Cultural Council (MCC); a list of applicants to the MCC Cultural Facilities Fund as of June 2019, also provided to MAPC by MCC; a list of creative spaces previously listed in SpaceFinder, a resource that had been developed by the Arts and Business Council of Greater Boston in partnership with Fractured Atlas, intended to connect renters with creative spaces; and, a compilation of cultural spaces, from publicly available sources, gathered manually from Arts and Culture projects in the region.

Data Limitations

While the assembled data provide valuable information about arts and culture in each municipality, we recognize that they are just a starting point. A primary limitation of the data is that elements of the arts and culture “ecosystem” are simply not present in quantitative data, especially region-wide, municipal-level quantitative data. Arts and cultural activities that are less formal, ephemeral, or new are particularly difficult to present in this format. For example, murals and festivals are more invisible

in the data than monuments or symphonies, and with this, information on the people and places behind them is hidden as well. We hope to make these critical components more visible through future iterations of this data. The category framework – Context, Strategy, Access, Production, and Financial Impact – is intended to accommodate these improvements.

As reflected by the discussion under Data Categories, the extent to which the published data adequately describes arts and culture varies across indicators. Access indicators are likely the most limited in their ability to fully represent what is happening at a given moment in time; Public Art and Arts and Cultural Events are prefaced with the word “Known” to remind the user that these counts are our best determination. The subcategory of Access that focuses on Public Engagement and Inclusion is even more impacted back this lack of data, as it seeks to describe the extent to which people how people are interacting with or not interacting with these activities.

The data assembled by MAPC also has its limitations. One weakness that underlies data describing the arts and culture economy, such as Creative Establishments, Employment at Creative Establishments, and Average Annual Wage at Creative Establishments, is that the identification of establishments as “Creative” is dependent on an industry classification system that was not designed to identify arts and culture as an industry. As a result, the components of the creative economy must be extracted from a series of larger industry categories they have been placed within. This extraction is best performed using the more detailed six-digit industry code; however, the ES-202 data that underlies the more recent estimates of Creative Industry Employment and Establishments, and all the published wage data is labeled by four-digit industry codes.

As a result, we expect the arts and culture economy data to be imprecise. Data are likely missing some establishments and employees within the creative economy and including others that are outside of it. A further limitation of the ES-202 data is that its origination – filings from businesses that are subject to unemployment compensation laws – means that sole proprietorships are not counted. In either case, we unfortunately cannot make definitive statements about the impacts of these shortcomings because, from the regional level, we do not have access to the “true” counts.

Data Maintenance

Continued maintenance of the assembled data will be critical to maintaining its usefulness over time. To provide insight into the impacts of Covid on arts and culture, data for more recent years will need to be added. The effort for this varies by data source. For public data sources, MAPC will download new data from the identified source and publish it to the Revive Arts Indicator database. Some additional processing is required for certain data points, for example, filtering establishment data to the relevant NAICS codes.

Maintenance of data developed or assembled by MAPC is a two-step process for data in the Arts Strategy database and the Arts and Cultural Spaces database: at the end of year calendar year, MAPC will “lock” the data for the current year (data are sent, automatically, to the Revive database) and then reapply this automation to a row for the current calendar year. Updating the Creative Economy data requires that MAPC purchase new business establishment data.

The subset of indicators that rely on survey data can only be updated through repeated survey activities. These activities are time-intensive to implement and rely on continued participation by respondents. They are most successful when coordinated by municipalities and distributed by local arts and culture leaders and organizations. Creating data that can be used for year-over-year comparisons will also require standardized questions that generate comparable data points. Once data is collected from surveys, data for open response questions must be cleaned, and individual responses need to be aggregated to the appropriate geography.

Future areas of work

As MAPC continues to update and enhance the Revive database, our priorities are to ensure there are opportunities to add to the existing data, use the data in a comprehensive way, and train municipal staff to work with the data as they measure the impacts of Covid, economic recovery, and changes resulting from the adoption of new

municipal strategies to support arts and culture.

Elements of work to be explored in the next phase of the Revive indicators project include the following:

- Convene a data collection workshop with municipalities
- Establish standards for survey data collection.
- Prioritize additional data or data enhancements to include in the database.
- Streamline uploads of local data into the indicators database.
- Explore database partnerships
- Dashboard visualization

For data collected and maintained by regional and state agencies including the New England Foundation for the Arts, the Massachusetts Cultural Council, the Massachusetts Historical Commission, and other entities, MAPC will explore opportunities to build partnerships to enhance the usability and ongoing maintenance of the data.

A long-term goal for the project is to develop a dashboard or interactive tool that allows a municipality to generate a data profile snapshot or cross-municipal comparison showing key context data, strategies and indicators with data visualizations. Ideally municipalities could generate summary report downloads from the dashboard.

Where possible, this tool could include access to maps that visualize data in the indicator tables.

The Revive indicators project has established a platform for aggregating data across a range of metrics related to arts and culture at the municipal level and includes key data points needed to track impacts of and recovery from the Covid-19 pandemic. This platform provides a foundation for transparent and coordinated efforts to support arts and culture throughout the Commonwealth and to measure the impact of local investment into arts, culture and creativity.



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