

Part B. Description of Statistical Methodology

The analysis plan for this exploratory research investigation is designed to gain deeper insights into following three overarching research questions:

1. What is the relationship between the presence and utilization of museums and libraries and the social wellbeing of counties throughout the United States?
2. What types of activities, partnerships and programs do museums and libraries pursue to promote various dimensions of social wellbeing in their local communities?
3. How can museums and libraries develop approaches to better understand their contributions to the social wellbeing of their communities in the time ahead?

Table 2 presents an overview of the data sources and planned analyses to address each of these questions.

**Table 2. Guiding Research Questions, Data Sources and Planned Analyses**

Research Questions	Data Sources	Planned Analysis
<p>What is the relationship between the presence and utilization of museums and libraries and the social wellbeing of counties throughout the United States?</p>	<p><b>SECONDARY DATA SOURCES ONLY</b>                      IMLS Museum Universe Data File; IMLS Public Libraries Survey; IRS 990s; Bureau of Labor Statistics; American Community Survey; IRS Non-Profit Registry; CDC Behavioral Risk Factor Surveillance Survey; Great Schools; EPA; FBI Uniform Crime Reports</p>	<p>Estimation of 10 Social Wellbeing Indices (SWIs) representing 10 different dimensions of social wellbeing for all US counties; multivariate analyses to explore associations between M/L presence and utilization and each dimension of social wellbeing;</p>
<p>What types of activities, partnerships and programs do museums and libraries pursue to promote various dimensions of social wellbeing in their local communities?</p>	<p><b>PRIMARY &amp; SECONDARY DATA SOURCES</b>                      Case Studies: Online Search; Document Review; Interviews w/ Library and Museum (M/L) staff; Interviews with Community Partners.</p>	<p>Identification and documentation of the types of activities M/Ls pursue to promote different dimensions of social wellbeing - what they do; how intensely do they do it; what types of groups do they partner with; how do they fit into broader networks of support.</p>
<p>How can museums and libraries develop approaches to better understand their contributions to the social wellbeing of their communities in the time ahead?</p>	<p><b>PRIMARY &amp; SECONDARY DATA SOURCES</b>                      Case Studies: Online Search; Document Review; Interviews w/ M/L Staff; Interviews with Community Partners</p>	<p>Identification and documentation of the different positions M/Ls occupy within the broader networks of support related to dimensions of social wellbeing. Identification of different approaches to assessing the contributions that M/Ls can make to different dimensions of wellbeing within these broader networks.</p>

This proposed investigation will be conducted in three sequential steps:

1. Using publicly available secondary data, the presence and activity level of all museums and libraries in the United States will be aggregated to their location within a county.
2. Using publicly available secondary data, and building on prior research by Stern, et. al. (2018), 10 indices of social wellbeing will be estimated to represent 10 different dimensions of social wellbeing for all U.S. counties. Additional statistical analyses will explore potential associations between the presence and activity level of museums and libraries with each of the 10 dimensions of social wellbeing.
3. Up to 32 case studies will be conducted to explore how M/L activities within a county promote select dimensions of social wellbeing. These case studies will blend secondary data (statistical analyses, literature review, and additional documents obtained through the Internet on the selected counties) with primary data collected through the case studies (i.e., interviews with local M/L respondents, locally collected data by M/L respondents).

The primary components of the study will build upon each other to provide new insights into the relationship between the presence and usage of museums and libraries with different dimensions of social wellbeing. County-level estimates of the presence and usage of museums and libraries will provide a relative sense of where these institutions are most heavily concentrated and most active in different types of places throughout the country, i.e. urban, suburban, and micropolitan counties.

County-level estimates of different dimensions of social wellbeing will provide an opportunity to identify where elevated levels of wellbeing are associated with elevated concentrations of museum and libraries. Those counties where museums and library presence and usage are most heavily concentrated *and* where key dimensions of social wellbeing are elevated will form a pool of counties from which to select the individual case studies.

The case studies will be used to understand how a particular library system or museum's activities in a community contributes to the promotion of a particular dimension of social wellbeing; *and* provide an opportunity to estimate the economic contributions museums and libraries make within their local economies. Each case study county will also be matched with a 'peer' county that is similar to the case study county, but where the museum and library sector is less well developed. For each case study county an economic input/output analysis will estimate the economic contributions that the museum or library system make within that county using the 'peer county' as a reference point.

Data collected in the case studies will be analyzed to identify commonalities across the different ways museums and libraries address different dimensions of wellbeing in their communities. Case study results will provide 1) practical examples for museum and library practitioners to help them think through their local efforts to promote different dimensions of wellbeing in their communities; 2) opportunities for future research to more rigorously assess the contribution that individual museums and library systems have on different dimensions of wellbeing in their

communities; 3) insights into the types of local data that museums and libraries need to be collecting to rigorously assess the impact of their work in their local communities; 4) insights into the potential economic contributions that a well developed museum and library sector can have on the local economy; and 5) insights for IMLS to guide future grant making and technical assistance to further the broader Community Catalyst Initiative.

### **B. 1. Respondent Universe**

The population for this study includes all US non-academic public libraries and all non-academic museums that meet the following criteria: (1) Non-profit (or government); (2) Organized on a permanent basis for essentially educational or aesthetic purposes; (3) Owns or uses tangible or intangible objects, either animate or inanimate; (4) Cares for these objects; (5) Exhibits these objects to the general public on a regular basis through facilities that it owns or operates; and (6) Uses a professional staff (paid or unpaid).

Records identifying the location and activities of these institutions will be obtained from publicly available sources (the Public Libraries Survey) or directly from the Institute of Museum and Library Services (Museum Universe Data File).

All M/L records will be aggregated to individual counties, which will be the geographic unit of analysis for the quantitative analyses examining the association between the presence of museums and libraries and economic outputs as well as to different dimensions of social wellbeing. Up to 24 counties will be selected for in-depth cases studies.

#### *Anticipated Limitations – Accounting for Spurious Relationships*

One goal of this study is to better specify the concept of social wellbeing within communities and measure the association between the presence and utilization of museums and libraries and indices of social wellbeing, controlling for the influence of economic status and other relevant possible covariates. In a recent study of culture and social wellbeing in Philadelphia and New York City, Stern and Seifert stratified the city's block groups by per capita income and then performed multiple regression on three social wellbeing indicators (personal health, personal security, and school effectiveness) using a cultural asset index, economic wellbeing (measures of income, labor force participation, and educational attainment), race and ethnicity as independent variables.<sup>1</sup> A similar strategy will be used in the current study with our estimates of museum and library presence and utilization in place of the cultural asset index.

For example, the social wellbeing index for Personal Health will be initially estimated using a range of county level public health indicators. The resulting score will then be used on the 'outcome' in a regression model to assess the influence of key covariates, i.e. museum/library presence/usage score, economic wellbeing, geographic scale, and racial/ethnic mix of the county, on the Personal Health score. The Personal Health score will then be re-estimated based on the results of this regression analysis, resulting in a Personal Health score that accounts for the

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<sup>1</sup> Mark J. Stern and Susan C. Seifert, "Cultural Ecology, Neighborhood Vitality, and Social Wellbeing—A Philadelphia Project," (Philadelphia: Social Impact of the Arts Project, 2013). [https://repository.upenn.edu/siap\\_cultureblocks/1/](https://repository.upenn.edu/siap_cultureblocks/1/); Stern and Seifert, "The Social Wellbeing of New York City's Neighborhoods: The Contribution of Culture and the Arts," (Philadelphia: Social Impact of the Arts Project, 2017). [https://repository.upenn.edu/siap\\_culture\\_nyc/](https://repository.upenn.edu/siap_culture_nyc/).

influence of economic wellbeing, geographic scale, and the racial/ethnic mix within a county.

The proposed study is not intended to test hypotheses for verifying contributions of museums and library activities on different “dimensions” (indices) of social and economic wellbeing. Rather, it is exploratory in beginning to construct a model for capturing various dimensions of social and economic wellbeing in communities, to map the presence of museums and libraries in communities, and to explore the nature of library and museum activities that may correspond to particular dimensions of social wellbeing. This analytical strategy does not eliminate the possibility of spurious correlations associated with other measured or unmeasured variables, but it provides a correction from several of the most likely sources of confounded associations.

The study team will draw on recent literature related to the operationalization of different dimensions of social wellbeing<sup>2</sup>, along with consultation of a panel of subject matter experts from a diverse range of content and methodological backgrounds to inform the specification of the social wellbeing indices, the selection of the counties for case studies, and the interpretation of findings across the study. Subject matter experts have been introduced to the study itself and have already provided guidance on preliminary development of the social wellbeing indices, specification of the economic input/output analyses, and the case study design. This subject matter expert group will continue to meet at key points throughout the project to inform data collection, analyses, interpretation of findings, and the structure of written deliverables.

#### *Anticipated Limitations – Counties as Geographic Unit of Analysis*

A fundamental limitation for the proposed study is using the county as a geographic unit of analysis, which presents a number of conceptual and methodological challenges – i.e., counties vary considerably in size and population; their boundaries are not standardized in any clear way; there exists considerable internal variations within counties along a range of dimensions that are important to understand but not possible for the present study to control; and counties are not isolated units – what happens in one county has a great deal to do with happens in neighboring or nearby counties.

In addition, these limitations make it very difficult to reliably isolate any relationships between the presence and utilization of museums and libraries with different dimensions of wellbeing within individual counties. Within any county, there are likely multiple institutions, organizations, or public agencies working towards the promotion of a particular dimension of wellbeing in their community. For example, the proposed design does not provide a way to measure the unique contribution that a library may make within a collective impact approach to improving 3<sup>rd</sup> grade literacy in a large urban county. On the other hand, in smaller places with fewer actors it may be the case that museums or libraries are the only institutions working to address a particular need, and in such cases, it would be possible to estimate their contributions to a particular issue in a single county. However, such findings would not necessarily be

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<sup>2</sup> Peranakan, P., & Promphakping, B. (2018). Local Meanings of Wellbeing and the Construction of Wellbeing Indicators. *Social Indicators Research*, 138(2), 689-703. Phillips, R., & Wong, C. (Eds.). (2016). *Handbook of community well-being research*. Springer; Povey, J., Boreham, P., & Tomaszewski, W. (2016). The development of a new multi-faceted model of social wellbeing: Does income level make a difference? *Journal of Sociology*, 52(2), 155-172. Kee, Y., Lee, S. J., & Phillips, R. (Eds.). (2016). *Social Factors and Community Well-Being*. Springer. Lee, S. J., Kim, Y., & Phillips, R. (Eds.). (2014). *Community well-being and community development: Conceptions and applications*. Springer.

generalizable for museums and libraries in similar counties.

Despite this limitation, the county does provide the most pragmatic geographic unit for a national study due to the availability of data to estimate the social wellbeing indices, the ability to aggregate museum and library presence and activities to a consistent geographic unit, and the ability to clearly communicate study findings in terms of geographies that most people generally understand.

The methodological challenges associated with using the county as the geographic unit are critically important for identifying ‘associations’ between the presence and usage of museums and libraries and different dimensions of social wellbeing. When we say ‘association’ this is what we mean: each county will receive a score that represents 1) the presence/usage of libraries in the county; 2) the presence/usage of museums in the county; and 3) individual score for each dimension of wellbeing – up to 10 individual scores. The ‘associations’ we’ll be looking for will be counties that fall in the top end of the distribution for each of these metrics.

Consider the following example: County A has a library presence/usage score in the top (10<sup>th</sup>) decile of the library presence/usage metric, and a ‘Personal Health’ score in the 9<sup>th</sup> decile of the ‘public health’ wellbeing index – we’d consider an ‘association’. The greater number of counties with library/museum presence and usage scores in the top end of the distribution that are also in the top end of the distribution of ‘Personal Health’ will provide the study team with guidance in the selection of Counties for potential case studies focused on ‘Personal Health’. This analysis will tell us nothing about whether museums and libraries within a county are actually doing any work that would be plausibly associated with promoting ‘Personal Health’ – rather the results provide a starting point for looking more closely within individual counties for evidence that a museum or library within particular counties are engaged in activities that could be conceptually linked to the promotion of ‘Personal Health’.

## **B.2. Potential Respondent Sampling and Selection Methods**

### **Sampling for Case Study Counties**

24 case studies will be conducted to explore the different ways M/L activities within a county promote a dimension of social wellbeing. The goal *is not* to select a set of counties that would be representative of different types of counties across the nation. Rather case study counties will be purposively selected when there is good reason to believe that M/L activities in a county are intended to promote a particular dimension of social wellbeing *and* that a deeper understanding of these efforts could provide valuable insights for other M/L professionals, public officials, and other key stakeholders whose work intersects with museums and libraries in their communities.

Case studies will focus on up to two of the 10 dimensions of social wellbeing.<sup>3</sup> The restriction of case study counties to up to two dimensions of social wellbeing is based on an assumption that M/L activities are more likely to be associated with certain of the 10 dimensions of social wellbeing than others. The selection of the dimensions of wellbeing that will be the foci for case studies will be informed by the literature review and the preliminary analyses of the relationship between M/L presence and activities and the different dimensions of social wellbeing.

Case study selection will follow a purposive selection process that will be guided by the literature review and the quantitative analyses of M/L presence and activity and county levels select dimensions of social wellbeing. A three step process will first identify pools of eligible counties for case studies: First, all counties will be assigned to three broad geographic scales: ‘urban’, ‘suburban’ and ‘micropolitan’ using the Office of Management and Budget definitions for Metropolitan and Micropolitan areas.<sup>4</sup> A county will be classified as ‘urban’ if it contains a principal city within a metropolitan area. A county will be classified as ‘suburban’ if it is within a metropolitan area but does not contain a principal city of that metropolitan area. A county will be classified as ‘micropolitan’ if it contains the principal city of a micropolitan area.<sup>5</sup>

Second, at each geographic scale, counties will be eligible for case study selection if the M/L presence and utilization in the county is in the top quintile of M/L presence and utilization of all counties at that geographic scale.

Third, counties will be eligible for case study selection based on elevated levels of at least one measure of social wellbeing in that county. Counties with elevated levels social wellbeing will be those counties with an SWI score in the top quintile for a particular dimension of social wellbeing at each geographic scale.

For instance, for a micropolitan county to be eligible as a potential case study county focused on ‘personal health,’ it would need the M/L presence and utilization to be in the top quintile of M/L presence and utilization for all micropolitan counties *and* have a SWI score for ‘health’ that is in the top quintile for the ‘personal health’ SWI scores for all micropolitan counties.

**Table 4. Case Study Sample Population and Sampling Frame\***

	Urban	Suburban	Micropolitan
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<sup>3</sup> The ten dimensions of social wellbeing include: Economic Wellbeing; Housing Burden; Economic and Ethnic Diversity; Health Access; Health; School Effectiveness; Security; Environmental Amenities; Social Connection; and Cultural Assets. See Stern, MJ and Seifert SC (2018) “Culture, equity, and social wellbeing in New York City” in *Capability-Promoting Policies: Enhancing individual and social development* Bristol, UK: Policy Press. (2017). *The Social Wellbeing of New York City’s Neighborhoods: The Contribution of Culture and the Arts*. Philadelphia: University of Pennsylvania, Social Impact of the Arts Project. Retrieved June 2018, from: [https://repository.upenn.edu/siap\\_culture\\_nyc/1/](https://repository.upenn.edu/siap_culture_nyc/1/).

<sup>4</sup> <https://www.gpo.gov/fdsys/pkg/FR-2010-06-28/pdf/2010-15605.pdf>;

<sup>5</sup> This geographic selection criteria excludes outlying counties that are not part of metropolitan or micropolitan statistical areas from consideration. This decision was made to on the assumption that counties will need to meet a critical population threshold, i.e. at least one urbanized area with at least 10,000 residents to viably observe and measure M/L activities that could be plausibly linked to different dimensions of social wellbeing.

<b>Total Counties</b>	383		868		566	
<b>Counties with elevated M/L presence and activity</b>	77		174		113	
<b>Counties with elevated M/L presence and activity &amp; elevated SWI scores</b>	31		46		47	
	Museums	Libraries	Museums	Libraries	Museums	Libraries
<b>Total Case Study Counties (Initial)**</b>	4	4	4	4	4	4

\* The estimated sampling frame presented in Table 4 was derived from actual data analyzed by the study team examining the relationship between the library presence and usage index with the personal health index.

\*\* The remaining 8 case studies will be identified following a review of findings from the first 24 cases in consultation with IMLS and the subject matter experts.

This case selection process will create pools of ‘case study eligible’ counties that are differentiated by geographic scale and different dimensions of social wellbeing. The estimated total sampling frame for each dimension of wellbeing at each geographic scale is presented in Table 4 above. These assumptions are based off an estimate of roughly 383 MSAs in the US accounting for 1,251 counties, and one county each from the 566 micropolitan statistical areas in the US.<sup>6</sup>

At each geographic scale, the pool of potential case study counties that could be selected for different dimensions of social wellbeing should be sufficiently large to find replacements if a M/L sector in a target county does not wish to participate in the study.

The selection process described here will be used to select the first 24 case study counties. The distribution of the initial 24 case studies will provide a relatively balanced set of cases from which to begin identifying commonalities between M/Ls at different geographic scales in terms of the way they address a particular dimension of wellbeing.

The remaining 8 case studies will be identified following a review of findings from the first 24 case studies. By reserving 8 case studies until we can review preliminary findings, it will be possible to target our remaining efforts to better understand the different types of relationships and approaches that M/Ls employ to support different dimensions of wellbeing in their communities. Decisions related to how to select the remaining case study counties will be made in consultation with Agency and the Subject Matter Experts.

#### *Selection from Pools of Eligible Counties*

Due to the exploratory nature of this study case study selection from these pools of eligible counties may proceed in a number of different ways, and the number of urban, suburban and

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<sup>6</sup> This sampling frame excludes roughly 1,200 counties that are not part of metropolitan or micropolitan statistical areas.

micropolitan counties selected for case studies may vary across different dimensions of social wellbeing.

Consider the following scenarios:

- 1) the quantitative analyses of the relationship between M/L presence and activity and the SWI for ‘social wellbeing dimension 1’ suggest that this relationship was much stronger in micropolitan counties than in urban or suburban counties. In this scenario, we would only select micropolitan counties to understand how M/L activities influence ‘indicator 1’.
- 2) the quantitative analyses of the relationship between M/L presence and activity and the SWI for ‘social wellbeing dimension 2’ suggest that this relationship is relatively strong in all types of counties: micropolitan, urban and suburban counties. In this scenario, we would intentionally select counties at each geographic scale to understand how M/L activities influence ‘indicator 2’. This scenario may also support cross case comparisons to understand whether, and how, M/L activities at different geographic scales influence the *same dimension* of social wellbeing in different ways.
- 3) the quantitative analyses of the relationship between M/L presence and activity and the SWI for social wellbeing dimension 3’ suggest that this relationship is only observed in urban counties and not in suburban or micropolitan counties. In this scenario, we would only select urban counties to understand how M/L activities influence ‘indicator 3’.
- 4) the quantitative analyses of the relationship between M/L presence and activity and the SWIs show no relationships. In this scenario, up to four dimensions of social wellbeing will be selected as the foci for the case studies based on the literature review. An equal share of urban, micropolitan and suburban counties will be randomly selected for case studies from the pools of counties that have elevated levels of M/L presence and activity, and elevated SWIs for each dimension of social wellbeing.

Under any of the scenarios described above, whenever a county is identified for a case study, the team will perform preliminary background research on M/L activities in that county to ensure that its libraries and museums are actively engaged in work that could be plausibly associated with the specific dimension of social wellbeing.

For example, when a county is identified as having an elevated M/L presence and utilization as well as elevated levels of ‘health’ and is selected for a case study, it will be important to first understand whether the M/L sector in that county was engaged in any activities that could be reasonably presumed to contribute to the promotion of public health, such as a library serving as a ‘Summer Meals’ site, or a museum offering wellness classes to local school students. In instances where an apparent connection cannot be identified, another county will be selected to replace the one removed.

We anticipate this vetting method will generally be effective in urban and suburban counties but may be more difficult to apply in micropolitan counties. If there are instances in the selection of



micropolitan case study counties where it is not possible to reliably identify M/L activities in the county that may be related to a specific dimension of social wellbeing based on available online information or secondary documents, we will reach out to local M/L directors in the target county to conduct a brief informational interview to determine whether the county should be included as a case study (See Protocol A).

If M/L stakeholders in a county identified for a case study do not wish to participate, another eligible county will be selected using the criteria described above.

The selection process described in this section will be used to select the first 24 case study counties. The remaining 8 case studies will be identified following a review of findings from the first 24 case studies. By reserving 8 case studies until we can review preliminary findings, it will be possible to target our remaining efforts to better understand the different types of relationships and approaches that M/Ls employ to support different dimensions of wellbeing in their communities. Decisions related to how to select the remaining case study counties will be made in consultation with Agency and the Subject Matter Experts support the project.

### **B.3. Response Rates and Non-Responses**

The study team will rely on IMLS to connect us to M/L points of contact in selected case study counties. Our initial interviews with M/L points of contact will be used to identify a list of organizations and individuals to participate in case study data collection. The study team will rely on the M/L points of contact to make introductions to potential case study participants. If suggested individuals or organizations are unwilling to participate, the study team will ask the M/L point of contact for a referral to another individual or organization who would also be a valuable contributor to the project. If an individual within an organization is not available during the site visit window the study team will try to identify another individual within the organization to participate. If it is not feasible/desirable to have a replacement, the study team will provide key individuals who cannot meet during a site visit window with the option to conduct an interview by phone or web-ex. Prior to data collection being finalized at each site visit the study team will confirm with M/L point(s) of contact that we've spoken with a sufficient set of individuals and organizations to understand the M/L sector contributions to social wellbeing in their communities. In our experience, individuals tend to be willing interview participants – we expect scheduling interviews will be more challenging than getting people to participate in the study.

### **B.4. Tests of Procedures and Methods**

Preliminary results from the county-level analyses exploring associations between the M/L presence and utilization and different dimensions of social wellbeing will be used to inform the development of county-level case studies. The objective of the case studies is to explore the mechanics of *how* the M/L presence and utilization in an individual county influences different dimensions of social wellbeing in refining the theory of change.

Case studies will be guided by five broad exploratory research questions:

- I. What activities, programs and partnerships do museums and libraries engage in that link to a dimension
- II. What position(s) do museums and libraries occupy within local networks that support a particular dimension of social wellbeing?
- III. What efforts are currently underway to assess the contribution that M/L activities make to promote particular dimensions of wellbeing?  
How can M/L activities and assessments inform the work of other M/Ls working to address similar dimensions of wellbeing in other counties?

Data collection for each case study will involve two principle components: 1) background research prior to site visits; and 2) site visits.

*Background Research.* Following the selection of each case study county, the study team will conduct an online search of the M/L sector in the target county, followed by preliminary interviews with M/L points of contact to confirm their suitability for the case study, and identify additional participants for interviews. See Section B.2, above.

*Site Visits.* Site visits will be conducted by teams of two – one lead team member who will conduct semi-structured interviews and another to take detailed notes during all data collection activities. Requests will be made to record all interviews for reference purposes, and to cite individual participants with their express consent (see Section A.10).

Site visits will include a combination of individual and group interviews of the following combination of local stakeholders: M/L representatives, public officials, local schools, community-based organizations, and potentially local businesses and other actors as determined by the local context (see Protocols B, and C for sample questions aligned to the overall research questions for the study). Site visit interviews will be opportunities to: 1) learn from key stakeholders about the range and variation of M/L community-based efforts and how these efforts promote specific dimensions of social wellbeing; 2) collect additional documentation of these activities that may be held by community partners; 3) develop a deeper understanding of the position museums and libraries occupy in broader networks of support in their communities; and 4) to understand how these institutions and their partners plan to assess the impact of their engagement in the community in the years to come.

Interview participants will also be asked if they are willing to participate in any follow up contact. These phone calls would only be conducted to clarify any ambiguity from field notes or to solicit attribution for a particular statement or quote.

#### *Pre-Testing*

Before conducting our initial case studies, the study team will pre-test the interview protocols with M/L staff and community organizations in Philadelphia (where the study team is based). Philadelphia may or may not meet the data-driven criteria used to select the case study counties, and these pre-test interviews will not count the city as one of our ‘urban’ case studies. The team will conduct four to six interviews – with representatives from the local M/L sector and with representatives from organizations who partner with M/L in support programming associated with promoting different dimensions of wellbeing.

Insights gleaned from these pre-testing interviews will ensure the team is asking questions in the right way before going out in the field across the country.

### *Case Study Analyses*

Case study analyses will rely on the following data for each county: 1) informational documents (obtained through background research and provided by M/Ls as well as other organizations in the county) related to individual M/L activities in support of different dimensions of social wellbeing; 2) prior statistical analyses for assessing the relationship between M/L activities and different dimensions of social wellbeing; 3) field notes and recordings from interviews conducted in case study counties; 4) results from the county level analyses of M/L presence and utilization; and 5) estimates of the economic contribution of M/L programming in support of particular dimensions of social wellbeing (where data are available).

The qualitative analysis of the case study data will proceed through the development of analytic memos for each case study county. The analytic memos will be written using a common structure for research staff to thematically organize their field notes, interview notes and recording, and documents collected from each site visit. Analytic memos will be organized into the following general sections:

#### *Documenting Museum and Library Activities*

Data collected from background research and interviews with M/L officials/staff, along with interviews with key stakeholders in the community will be used to thoroughly describe the different ways the M/L sector is engaged to address a particular dimension of social wellbeing in the county – the programs they run/support, the partnerships they maintain, and the intensity of their activities. These data will be analyzed to thematically organize M/L activities within dimensions of social wellbeing and to identify the strategies M/Ls employ to sustain their engagement with these activities.

#### *Documenting Museum and Library Positions within Broader Networks of Support for Particular Dimensions of Social Wellbeing*

Data collected from background research, interviews with M/L officials/staff, along with interviews with key stakeholders in the community will be used to identify the position the M/L sector occupies within a broader network of support to address a particular dimension of social wellbeing in the county – as a leader, a convener, or as a contributor.<sup>7</sup> These results will be analyzed to thematically organize M/L roles within particular dimensions of social wellbeing, and to identify the strategies M/Ls employ to sustain their engagement in these broader networks of support.

#### *Documenting Museum and Library Strategies to Deepen their Efforts in Support for Particular Dimensions of Social Wellbeing*

Data collected from background research, interviews with M/L officials/staff, along with interviews with key stakeholders in the community will be used to identify the different approaches M/Ls have adopted to sustain their support for a particular dimension of social wellbeing in their communities. These results will be analyzed to thematically

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<sup>7</sup> <https://www.imls.gov/sites/default/files/publications/documents/community-catalyst-report-january-2017.pdf>

organize M/L strategies M/Ls employ to sustain their engagement across different dimensions of wellbeing and at different geographic scales.

Within each case study, the qualitative data will be supplemented with a set of quantitative analyses (using secondary data) that estimates the economic contribution the M/L sector has on the case study county and the economic contribution of M/L activities in support of selected dimensions of social wellbeing, when appropriate.

*Economic Input/output Analyses (Using Secondary Data and Input-Output Software for Modeling)*

For **all** case study counties, an economic input/output analysis will estimate the contribution the M/L sector makes through direct employment and spending within the county. Estimates of the economic contribution of M/L employment and spending will be measured as the share of county-level gross domestic product (GDP) accounted for by these metrics.

In **select** case study counties, it may also be possible to estimate the contributions of specific programming and services. For instance, it will be possible to estimate the economic contribution of a library summer feeding program if the library can provide an accurate number of meals served over a specified period of time. The team's ability to estimate the economic contributions of select programs and services M/Ls offer in support of a particular dimension of social wellbeing will depend on the availability of local data.

*Identifying Meaningful Types of Activities & Assessment Approaches*

Data collected through the case studies will be analyzed to achieve the following overarching goals:

1. Identification of meaningful types of activities to promote to specific dimensions of wellbeing. Analyses of case study data will seek to create types of activities that M/L pursue to promote different dimensions of wellbeing. Where appropriate, these types will be differentiated by the geographic scale of the county where M/Ls are located, and by the position these institutions occupy within broader networks of support for particular dimensions of wellbeing.
2. Specification of different approaches to assess the contribution that different types of M/L activities can make toward promoting different dimensions of wellbeing. Case study findings will also inform the creation of meaningful types of approaches to assessing the contributions that M/L activities make toward promoting different dimensions of wellbeing in their communities. Assessment approaches will be organized into different types (i.e. formative assessment, outcomes evaluation, economic impact assessment) for different dimensions of wellbeing, with each assessment approach implying different approaches to data collection and analyses.

To be clear: the case studies are one critical component of a much larger exploratory study. They are intended to provide the kind of qualitative information that speak to how the activities of museums and libraries promote various dimensions of wellbeing. They are not designed to

demonstrate the causal link between presence/use of libraries and museums and social wellbeing; they are designed to gain a deeper understanding of how those things connect. These learnings are expected to inform how future research can apply more rigorous approaches to assess impacts that can be more precisely measured. Taken together, the totality of findings from the proposed research will provide multi-method and multi-dimensional insights into some of the diverse ways that M/Ls promote the quality of life in their communities, and provide a conceptual road map to guide more rigorous assessments of the diverse range of contributions these institutions make across the country .

#### **B.5. Contact Information for Program, Statistical or Design Consultants**

IMLS contact:

Dr. Marvin Carr, STEM and Community Engagement Advisor  
Institute of Museum and Library Services  
955 L'Enfant Plaza North, SW, Suite 4000  
Washington, D.C. 20024-2135

mcarr@imls.gov 202-653-4752