Building Our Future Together

A PRELIMINARY REPORT FROM THE QUANTITATIVE NEEDS ASSESSMENT TEAM

April 17, 2017

Quantitative Needs Assessment Team

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BACKGROUND

In the fall of 2016, Dr. Marshall Stewart, Vice Chancellor for Extension and Engagement, launched a plan to create a collaborative vision for University of Missouri Extension. The first step along this journey was a series of Listen and Learn Tours throughout the state with faculty, staff, extension council members, partners, elected officials, community members, and other stakeholders. The objectives of these meetings were to hear about ideas, goals and concerns from a variety of perspectives.

Next, a comprehensive assessment of the state was called for to identify needs and the capacity of MU Extension to meet those needs. This assessment includes both quantitative and qualitative evaluation, as well as a third-party independent review. The project goals include an examination of the current and emerging needs in the state of Missouri, allowing the University to look forward and focus its energies and resources toward creating products, programs, and most importantly meeting the needs of people in the state of Missouri.

This Preliminary Report from the Quantitative Team includes an overview of our process, approach, and deliverables. Deliverables include an interactive website that consists of key issues, digital storytelling with literature reviews, mapping and reporting tools, and a data list. This brief report is augmented by attachments and hyperlinked website features.
PROCESS

The Quantitative Team engaged a representative group of “Quantitative Thought Leaders” in an iterative group process to identify topics and frame questions (see Attachment 1). The team then responded to these questions by demonstrating an “issues-driven” system and process rather than offering a narrower “data-driven” approach to decision-making. Key dates, activities, and participants in this process are described below.

JANUARY 2017

Approximately 30 Quantitative Thought Leaders engaged in an all-day work session to frame and prioritize questions around 4 pre-identified domains (Economy, Education, Environment, & Health).

The group collectively generated key topics or issues within each domain and visualized them in relation to one another. Quantitative Thought Leaders prioritized key topics within each domain based on their experiences within their agencies and through interactions with Missourians across the state.

Smaller, interdisciplinary groups developed framing questions for prioritized topics and identified potential data partners and resources that could be used to answer questions. It was quickly apparent that priority issues, not data, should drive the quantitative needs assessment moving forward.
The Quantitative Team met to distill results from the work sessions and determined that 2 additional “data domains” were needed to fully accommodate the prioritized topics identified by the Quantitative Thought Leaders.

<table>
<thead>
<tr>
<th>Agriculture</th>
<th>Economy</th>
<th>Education</th>
<th>Environment</th>
<th>Food</th>
<th>Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainability</td>
<td>Workforce</td>
<td>Formal Non-Formal Soft Skills</td>
<td>Stewardship</td>
<td>Security Literacy</td>
<td>Mental Health</td>
</tr>
</tbody>
</table>

**February 2017**

The Quantitative Team solicited questions from Quantitative Thought Leaders via an e-mail that asked, “What questions would you pose to help us frame the issues?” The Quantitative Team continues to collect input from Quantitative Thought Leaders and other stakeholders via e-mail, discussions, and input mechanisms on the Needs Assessment site. Emerging questions are archived on the site to illustrate the responsivity of our approach.

Subsequent team meetings were spent establishing a Needs Assessment “Hub” website, framing key issues, and developing issue narratives supported by figures (tables, charts, maps) and external reports. Multiple iterations of the Extension Knowledge Management Framework were considered (described further in next section of this report).
**March 2017**

Quantitative Thought Leaders convened for a second all-day work session. About 30 leaders attended. The Quantitative Team reviewed the objectives of the assessment, our approach and process, and progress to date. A preliminary version of the website was presented, along with the final draft version of the Knowledge Management Framework.

At the meeting, questions emerged about the quantitative needs assessment, particularly concerning what the focus of the needs assessment should be. Some thought leaders viewed the assessment to be more about getting an inventory of data rather than focusing on an issues-based approach with an interactive website.

The Quantitative Team explained that rather than spending time and resources identifying the universe of data (essentially serving as hunter-gatherers in the data jungle), our initial focus was on identifying topics, issues, and questions that could then be used to determine what data to acquire or elevate if already acquired. A data list was compiled for the needs assessment and is included in the website. The remainder of the meeting focused on clarifying framing questions and reprioritizing needs.

The Quantitative Team again distilled input from the all-day work session with Quantitative Thought Leaders and continued to refine the Needs Assessment Hub website.

**April 2017 & Ongoing**

The Quantitative Team continues to evolve the website and has begun discussions about how other components of the Building Our Future Together needs assessment relate to our work and the Extension Knowledge Management Framework. Now that the highest priority Issues-based approach to the quantitative needs assessment has been demonstrated, the team will begin conducting a data inventory that will include Extension and the broader campus. The emphasis of this data inventory effort is to provide awareness and be more responsive to MU and the State of Missouri related to data stewardship and emerging issues and needs.

As part of this process the team will set up 1-hour “data conversations” with organization, department, and/or program leaders, along with appropriate data management colleagues, to discuss specific data-related questions. This will likely be a long but important process to better understand data alignment opportunities that may require data sharing agreements.
Understanding the institutional data landscape, coupled with proactive data sharing agreements with organizations across campus, will greatly improve our ability to rapidly respond to emerging issues within our institution and for external stakeholders across the state. Although this data inventory process will begin in April, it will likely continue to snowball over the next year beyond Extension and the broader campus. Key to these data conversations is establishing processes for ongoing engagement as organizations and databases evolve. These processes should be formalized by establishing a “Data Governance” presence.

Regarding Data Governance, as part of the Extension strategic planning process and broader engagement opportunities, we should establish campus-wide presence to address data sharing and alignment. Once a Data Governance group is established and operating internally, Extension can serve as a data steward for connecting and aligning state data capacities to address emerging issues; to go beyond data repositories and warehouses; by engaging researchers on campus; making meaning, translating, and extending knowledge. Extension is unique in this regard. Do we have all the pieces in place to make this happen now? No. But with intention, we can make it happen over time.
**APPROACH**

The Quantitative Needs Assessment is conducted with an overarching Knowledge Management Framework in mind rather than in isolation whereby our effort would only focus on a quantitative data inventory; namely, who has what data and where it is housed. The *Extension Knowledge Management Framework* (see Figure 1 below and Attachment 2 for a larger version of the image) depicts an approach to address and effectively respond to emerging needs and priorities both within our institution (both Extension and broader campus engagement) and across Missouri. It can also be adapted to a broader national context.

![Extension Knowledge Management Framework](image)

**Figure 1. Extension Knowledge Management Framework**

Note, the framework is not a computer-centric “system” that only includes what can be explicitly codified; it also includes the incorporation of tacit knowledge and expertise that cannot be codified. Engagement processes coupled with appropriate use of data visualizations and technology, inform potential refinement and reframing of issues.

**ISSUES FRAMING PROCESS:** This component serves as the foundation for addressing emerging needs and priorities, whether the question or issue comes from the state legislature or a resident from Northeast Missouri. Although the Issues Framing component is depicted as one of five component boxes in the illustration above, it is likely the most time consuming and complex aspect of the framework depending on the complexity of the issue or question asked. Key to this process is establishing an understanding of the issue, stakeholders affected, and approaches to addressing it (quantitative and qualitative); engaging the appropriate experts and analysts if need be; and ensuring a common vocabulary for dissemination.
SECONDARY DATA DOMAINS: Six Data Domains are identified based on group input: Health, Education, Economy, Food, Agriculture, and Environment. A seventh Data Domain - Social Determinants - underpins the other domains since socioeconomic and demographic, transportation and other infrastructure data typically play a role in addressing what might otherwise be a domain-specific issue. Secondary, population-level data is usually readily available via state or federal data warehouses. Rather than acquire and maintain all these data (which incurs expense), it is more important to know where to acquire these data when needed to address a given issue. Although there are distinct Data Domains, these distinctions are based on data collection efforts by state and federal agencies (e.g., health data from Missouri Department of Health and Senior Services (DHSS) and Health and Human Services (HHS)). In reality questions and issues typically transcend the Data Domains and should be addressed accordingly. Most quantitative data are inherently spatial and can be displayed and overlaid with other spatial data in a Geographic Information System (GIS) or interactive maps (see appendix and website). For that matter, most qualitative data is spatial in nature, in that collection can include geocoding at an appropriate geography.

PRIMARY ORGANIZATION DATA: Key to addressing emerging needs and priorities is to understand, align, and codify, where possible, the capacity of MU Extension databases to meet those needs. There are a number of databases within Extension that can be leveraged to address emerging issues. To that end, the Quantitative Needs Assessment team will initiate a series of meetings to better understand the organization data landscape (see “Data Inventory” section above). There are also opportunities to create tools for acquiring relevant organizational data that better measures impact at the state level; but more importantly, measure what matters at the regional level. Most organizational data are inherently spatial and can be displayed and overlaid with secondary data in a Geographic Information System (GIS) or interactive maps.

ANALYSIS LENS ACROSS DATA DOMAINS: Data alone is meaningless. Data framed in a way that is consumable or digestible by audiences requires manifesting the data as tables, charts, trends over time, maps, or other ways of visualizing and conveying meaning in narratives. The analysis lens provides options for displaying the data in appropriate contexts as part of addressing issues - with the knowledge that data alone will likely not fully address them. Tacit knowledge / intuition should be incorporated into decision-making processes where appropriate; for example, to further iterate or refine and reframe issues based on analytical and engagement feedback loops (“people-driven” decision-making).

DISSEMINATION: Ultimately, we need to communicate how issues or questions are addressed. Dissemination needs to meet audiences where they are at. Although we can leverage great technologies and data systems, we should be mindful how to best disseminate what we know whether they be through conversations, face-to-face meetings, offline or online reports and data visualizations, etc. The adage, “Humans before Hardware” is more apt now than ever before as we recognize the importance of relationships in educating rather than just pushing facts, which is what most organizations provide via websites. Extension is in a unique position in this regard, given its brick-and-mortar presence in regions around the state.
To fulfill the stated goals of the needs assessment, the team created the University of Missouri Extension Needs Assessment Hub. Recognizing that needs and issues across the state are not static, the Hub is intended to serve as a resource for issue engagement and has been customized for the University of Missouri Extension. Content on the Hub is organized by 6 data domains: Economy, Education, Environment, Health, Agriculture, & Food. Each domain has three sections: (1) Key Issues, (2) Reports & Data, & (3) Resources (refer to Attachment 3 for site list view of website content).

### Agriculture
- **Key Issues**
  1. Understanding Agricultural Economics
  2. Mental Health in Agriculture
  3. Consumer Trust / Perceptions of Agriculture
- **Ag Site Assessment Tool**
- **Food Market Evaluation Tool**
- **Agriculture Data List**

### Economy
- **Key Issues**
  1. Broadband Infrastructure
  2. Labor Force Dynamics
  3. Local Tax Base
- **Economic Snapshot Report**
- **Economic Data List**

### Education
- **Key Issues**
  1. Early Learning
  2. K-12 Schooling & Higher Education
  3. Employability
- **Education Snapshot Report**
- **Education Data List**

### Environment
- **Key Issues**
  1. Environmental Justice
  2. Environmental Stewardship
  3. Environmental Vulnerability
- **Environment Snapshot Report**
- **Environment Data List**

### Food
- **Key Issues**
  1. Food Security
  2. Food Access
  3. Nutrition Education / Feeding Across the Lifespan
- **Food & Nutrition Snapshot Report**
- **Food & Nutrition Data List**

### Health
- **Key Issues**
  1. Gap between Mental Health Needs & Resources
  2. Access to Affordable Health Care
  3. Opioid Drug Misuse and Abuse
- **Health Snapshot Report**
- **Health Data List**

### Key Issues
Issues were informed by the process described above, along with review of state strategic plans and other scholarly literature. Each issue consists of a description of the issue and a status report or "state of the state." Issue narrative is supported by figures (tables, charts, maps) from Community Commons and external reports (for examples, see Attachment 4: Labor Force Dynamics and Attachment 5: Consumer Trust/Perceptions of Agriculture).
REPORTS AND DATA
Each domain includes a “Snapshot Report,” and interactive report adapted from existing Community Commons indicator reports (for examples, see Attachment 6).

- Indicators derived from reports prepared for state and national clients (Missouri Community Action Network, Missouri Housing Development Commission, Kaiser Permanente, etc.)
- Reports provide indicator summaries for selected report areas (counties or MU Extension regions), the state of Missouri and the United States
- Indicator data for report areas are benchmarked to state averages
- Reports contain inset maps at the county or census tract level to display local area variation in data
- Reports contain trends over time and data by race/ethnicity (where available)
- Reports can be saved as an interactive view, or can be downloaded as an Adobe PDF or a Microsoft Word document

Each domain also includes data list (for example, see below and Attachment 7). The data list is a searchable inventory of data available on Community Commons, supplemented by local, state and national data resources. State and national data resources continue to be expanded over time.

RESOURCES
Each domain includes guides, toolkits, or external sources of data. Resources typically support the key issues elaborated in each domain but may relate to the domain more broadly.
ATTACHMENTS

Attachment 1 – Quantitative Thought Leaders

Attachment 2 – Extension Knowledge Management Framework

Attachment 3 – Site List View of Website Contents

Attachment 4 – Key Issue: Labor Force Dynamics

Attachment 5 – Key Issue: Consumer Trust/Perceptions of Agriculture

Attachment 6 – Example Snapshot Reports

Attachment 7 – Example Data List
ATTACHMENT 1 – Quantitative Thought Leaders

Aaron Baker
Karen Brinkman
Robert Broz
Scott Brown
Meredith Colleen
Pat Curry
Karla Deaver
Teresa Foulkes
Chris Fulcher
Dwaine Gelner
Rob Kallenbach
Kimberly Keller
Dean Larkin
Rusty Lee
Melissa Maras
Joy Millard
Stephanie Milner
Linda Morgan
Rebecca Mott
Sherry Nelson
Jackie Rasmussen
Mary Sebade
Brent Vandeloesht
Cindy Wells
Lloyd Wilson
ATTACHMENT 2 – Extension Knowledge Management Framework

Extension Knowledge Management Framework

Dissemination
(Conversations, Meetings, Reports, Data Visualizations, Engagement Systems, etc.)

Analysis Lens across Data Domains

- Forecasting
- Public Policy
- Regional Resilience
- Equity / Access
- TBD

Primary Organization Data
(Extension Primary Data Collection (place-based); Explicit Knowledge – Implicit Knowledge)

Secondary Data Domains
(Quantitative and Qualitative Geographic Data)

- Health
- Education
- Economy
- Food
- Agriculture
- Environment
- Social Determinants
  (Poverty, Age, Race, Income, Employment, Infrastructure, Transportation, Jurisdictions, etc.)

Issues Framing Process
(Emerging Needs and Priorities)

Knowledge Management Framework: Core components include people/culture, processes/structure and technology
ATTACHMENT 3 – Site List View of Website Contents

**Economy**
**Key Issues**
1. Broadband Infrastructure
2. Labor Force Dynamics – see appendix A
3. Local Tax Base
**Reports and Data**
1. Economic Snapshot Report
2. Economic Data List

**Education**
**Key Issues**
1. Early Learning
2. K-12 Schooling & Higher Education
3. Employability
**Reports and Data**
1. Education Snapshot Report
2. Education Data List

**Environment**
**Key Issues**
1. Environmental Justice
2. Environmental Stewardship
3. Environmental Vulnerability
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1. Environment Snapshot Report
2. Environment Data List

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1. Gap between Mental Health Needs & Resources
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**Key Issues**
1. Understanding Agricultural Economics
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**Food**
**Key Issues**
1. Food Security
2. Food Access
3. Nutrition Education / Feeding Across the Lifespan
**Reports and Data**
1. Food & Nutrition Snapshot Report
2. Economic Data List
ATTACHMENT 4 – Key Issue: Labor Force Dynamics

Key Issues in the Economy

Issue 2: Labor Force Dynamics

The demographics of the workforce are changing in Missouri and across the United States. Understanding the forces that drive workforce dynamics and population migration is important for community economic planning and development.

Since the early 2010s, the share of Millennials (born 1981 – 1997) and Generation Xers (born 1965 – 1980) in the workforce has more than doubled the share of Baby Boomers (born 1946 – 1964) and their predecessors (Pew Research Center 2015). And in 2015, Millennials surpassed both Boomers and Generation Xers as the largest demographic in the workforce. As the share of Boomers in the workforce continues to decline in the next decade, it will be important to understand the factors influencing where the following generations choose to live and work.

Across the United States, Millennials from rural backgrounds are increasingly choosing to leave their family homes in favor of urban environments. These trends largely drive population change in Missouri, particularly in areas of “rapid growth and decline”. (Missouri Office of Administration). This shift has implications for economic development – the availability and technical level of the local workforce is commonly the most important factor considered in site-selection decisions (Retooling for Growth: Building a 21st Century Economy in America’s Older Older Industrial Areas).

Young Adult Net Migration Rate, 2000-2010 (U. of Wisc.) and Employment Accessibility (EPA 2011).

Projections from the Missouri Office of Administration are consistent with the current trend. By 2030, the 9 of the 10 counties expected to experience the largest population declines are rural.
The United States saw a net gain of over 5.5 young adults aged 20 to 29 between 2000 and 2010. Some of this increase is attributable to a large number of Millennials entering the age cohort at a faster rate than Generation Xers are leaving it. However, immigration from outside the US also drives this growth – over the past 5 years, Pew Research Center studies show that “over half of newly arrived immigrant workers have been Millennials” (Pew Research Center 2015). Between 2000 and 2010, the United States saw a net increase of over 8.8 million immigrants (Center for Immigration Studies). Missouri’s share of that increase was less than 1.0%, and the state ranks 40th for immigrant share and 26th for total immigrant population.

For more information on migration patterns and projections in Missouri, please see the Missouri Office of Administration: Population Trends report and view the charts below.
According to the 2016 Consumer Trust Research Summary conducted by The Center for Food Integrity, 80% of consumers want to know more about how their food is produced and where it comes from. This level of interest indicates an opportunity for agricultural producers to engage with consumers to earn their trust. Consumers rely on websites and friends as their number one sources of information about food systems, with family members also playing a key role. Information gathered from these sources interact with consumer values and beliefs to form opinions about the food system. For agricultural producers, engaging online and developing personal connections can be powerful strategies for helping consumers learn more about the food they purchase for themselves or their families. With the average American now three generations removed from the farm and rapidly increasing urban growth in major Missouri cities, engaging consumers is more important today than ever before.

Many Missouri producers are successfully connecting with consumers through Farmer’s Markets, On the Farm Markets, and Community Supported Agriculture (CSA’s). These producers are striving to meet consumer demand for fresh produce and meat that is grown close to home by farmers they trust. Farmer’s Markets, On the Farm Markets, and CSA’s all contribute to local food systems, and help develop relationships between producers and consumers while also strengthening consumers’ connections to and understanding of agriculture. Consumers who purchase food using Farmer’s Markets, On the Farm Markets, and CSA’s have the opportunity to talk with producers face-to-face, ask questions, and learn more about how and where their food was raised.
In addition to providing diversification for existing agricultural producers, local marketing strategies provide opportunities for young or new farmers to get started in agriculture. However, this type of business requires a broad range of skills as well as innovation. Producers must grow their product, develop the ability to connect with consumers through face-to-face marketing, determine how to successfully engage consumers online, and establish their distribution methods.

Missourians are realizing that these marketing strategies can provide economic opportunities for the entire community as they provide jobs for local residents, keep food dollars in the community, and help stimulate the local economy.
ATTACHMENT 6 – Example Snapshot Reports

Topic-based Reports

Food Environment Report

Data Category
- Demographics
- Dietary Behaviors
- Family Behaviors
- Food Systems
- Food Security
- Health Care
- Health Outcomes

Food Systems

Data Indicators
- Community Supported Agriculture
- Food Hubs
- Food Systems
- Farms to School
- Farmers Markets
- Local Food Incentives
- Modified Retail Food Environment Index
- On-Farm Markets

Farm to School

This indicator reports the number and percentage of school districts reporting that they participate in farm to school programs.

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Total Number of Districts Served</th>
<th>Number Participating in Farm to School Activities</th>
<th>Percentage Participating in Farm to School Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missouri</td>
<td>522</td>
<td>143</td>
<td>27.89%</td>
</tr>
<tr>
<td>United States</td>
<td>12,522</td>
<td>5,250</td>
<td>41.99%</td>
</tr>
</tbody>
</table>


Farm to School Programs, Districts that Participate by School District, USDA - FNS 2015

Definition of “Local” for Districts Participating in Farm to School Activities

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Produced within City or County</th>
<th>Produced within a 50 Mile Radius</th>
<th>Produced within a 100 Mile Radius</th>
<th>Produced within a 200 Mile Radius</th>
<th>Produced within the State</th>
<th>Other Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report Area</td>
<td>3</td>
<td>7</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Missouri</td>
<td>22</td>
<td>56</td>
<td>19</td>
<td>10</td>
<td>23</td>
<td>13</td>
</tr>
<tr>
<td>United States</td>
<td>636</td>
<td>816</td>
<td>561</td>
<td>272</td>
<td>1,227</td>
<td>727</td>
</tr>
</tbody>
</table>

Definition of “Local” for Districts Participating in Farm to School Activities

- Other Definition: 10.52%
- Within the State: 21.03%
- Within 200 Miles: 7.28%
- Within 50 Miles: 26.54%
- Within 100 Miles: 10.53%
### Local Food Served by Participating Districts by Category

<table>
<thead>
<tr>
<th></th>
<th>Serves Local Fruit</th>
<th>Serves Local Vegetables</th>
<th>Serves Local Milk or Dairy</th>
<th>Serves Local Meat</th>
<th>Serves Local Eggs</th>
<th>Serves Local Herbs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report Area</td>
<td>55%</td>
<td>55%</td>
<td>45%</td>
<td>20%</td>
<td>25%</td>
<td>15%</td>
</tr>
<tr>
<td>Missouri</td>
<td>53.15%</td>
<td>48.75%</td>
<td>37.05%</td>
<td>11.89%</td>
<td>13.99%</td>
<td>7.69%</td>
</tr>
<tr>
<td>United States</td>
<td>58.33%</td>
<td>53.44%</td>
<td>39.05%</td>
<td>12.32%</td>
<td>15.61%</td>
<td>11.41%</td>
</tr>
</tbody>
</table>

### FOOTNOTES

#### Farm to School

**Data Background**

The Food and Nutrition Service (FNS) is an agency of USDA's Food, Nutrition, and Consumer Services. FNS works to end hunger and obesity through the administration of 15 federal nutrition assistance programs including WIC, Supplemental Nutrition Assistance Program (SNAP), and school meals. In partnership with state and local governments, FNS programs serve one in four Americans during the course of a year. The FNS mission is to increase food security and reduce hunger by providing children and low-income people access to food, a healthy diet and nutrition education in a way that supports American agriculture and inspires public confidence.

**Methodology**

Indicator data are acquired from responses from the USDA’s first nationwide Farm to School Census. From a total of 18,104 public school districts in the target list frame, 12,585 school districts completed the survey with usable responses. This indicator reports the percentage of districts (including some charter and private school districts) with schools participating in farm to school activities in either the 2018-19 or 2019-20 school year.

The Farm to School Census prioritizes gathering procurement data related to local sourcing, with documentation of additional farm to school activities (e.g., the prevalence of school gardens, promotional activities, and curriculum integration, etc.) as a secondary objective. Procurement data includes the types and frequency of local products purchased, the dollar amount spent on all food and local foods, and the degree to which local purchasing is expected to increase, stay the same, or decrease. Additionally, the Census asks districts to identify benefits and challenges to participating in farm to school activities.

For more information, please visit the About The Census section of the USDA’s Farm to School Census web page.
Economic Indicator Report

Report Area
Missouri

Data Category
Demographics » Income » Workforce » Social Factors

Workforce

Data Indicators
- Commute - Commute Over 60 Minutes
- Commute - Driving Alone to Work
- Infrastructure - Broadband Access
- Migration Patterns - Total Population
- Migration Patterns - Young Adult
- Unemployment Change
- Unemployment Rate

Infrastructure - Broadband Access

This indicator reports the percentage of population with access to high-speed internet. This data source represents both wireline and wireless internet providers. This indicator is important because access to technology opens up opportunities for employment and education.

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</thead>
<tbody>
<tr>
<td>Missouri</td>
<td>6,085,827</td>
<td>98.9%</td>
<td>98.48%</td>
<td>79.12%</td>
</tr>
<tr>
<td>United States</td>
<td>322,610,903</td>
<td>99.42%</td>
<td>99.24%</td>
<td>88.71%</td>
</tr>
</tbody>
</table>

Data Source: National Broadband Map, 2016. Source geography: County

Access to High-Speed Internet, Percentage of Population with DL Speeds > 25MBPS by County, Nat. Broadband Map 2014

Unemployment Rate

This indicator reports the percentage of the civilian non-institutionalized population age 16 and older that is unemployed (non-seasonally adjusted). This indicator is relevant because unemployment creates financial instability and barriers to access including insurance coverage, health services, healthy food, and other necessities that contribute to poor health status.

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Labor Force</th>
<th>Number Employed</th>
<th>Number Unemployed</th>
<th>Labor Force Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missouri</td>
<td>3,862,338</td>
<td>2,541,776</td>
<td>140,552</td>
<td>4.6</td>
</tr>
<tr>
<td>United States</td>
<td>158,079,534</td>
<td>149,665,856</td>
<td>8,413,079</td>
<td>5.3</td>
</tr>
</tbody>
</table>


Unemployment Rate by County, BLS 2017 - January

- Over 12.0%
- 9.1 - 12.0%
- 6.1 - 9.0%
- 3.1 - 6.0%
- Under 3.1%

Report Area
### Average Monthly Unemployment Rate, January 2016 - January 2017

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</tr>
</thead>
<tbody>
<tr>
<td>Missouri</td>
<td>4.5</td>
<td>4.9</td>
<td>4.8</td>
<td>4.3</td>
<td>4.2</td>
<td>4.9</td>
<td>5.2</td>
<td>5.2</td>
<td>4.6</td>
<td>4.1</td>
<td>3.7</td>
<td>3.9</td>
<td>4.6</td>
</tr>
<tr>
<td>United States</td>
<td>5.3</td>
<td>5.2</td>
<td>5.1</td>
<td>4.7</td>
<td>4.5</td>
<td>5.1</td>
<td>5.1</td>
<td>5</td>
<td>4.8</td>
<td>4.7</td>
<td>4.4</td>
<td>4.5</td>
<td>5.1</td>
</tr>
</tbody>
</table>

### Average Annual Unemployment Rate, 2005-2015

<table>
<thead>
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</thead>
<tbody>
<tr>
<td>Missouri</td>
<td>5.4</td>
<td>4.8</td>
<td>5</td>
<td>5.9</td>
<td>9.4</td>
<td>9.6</td>
<td>8.5</td>
<td>6.9</td>
<td>6.7</td>
<td>6.1</td>
<td>5</td>
</tr>
<tr>
<td>United States</td>
<td>5.2</td>
<td>4.7</td>
<td>4.7</td>
<td>5.8</td>
<td>9.3</td>
<td>9.7</td>
<td>9</td>
<td>8.1</td>
<td>7.4</td>
<td>6.2</td>
<td>5.3</td>
</tr>
</tbody>
</table>
Topic-based Reports

Health Indicator Report

Report Area
Missouri

Data Category
Vulnerable Populations * Clinical Care * Health Behaviors * Health Outcomes * Infant/Child Health

Clinical Care
A lack of access to care presents barriers to good health. The supply and accessibility of facilities and physicians, the rate of uninsurance, financial hardship, transportation barriers, cultural competency, and coverage limitations affect access.

Rates of morbidity, mortality, and emergency hospitalizations can be reduced if community residents access services such as health screenings, routine tests, and vaccinations. Prevention indicators can call attention to a lack of access or knowledge regarding one or more health issues and can inform program interventions.

Access - Primary Care Providers

This indicator reports the number of primary care physicians per 100,000 population. Doctors classified as "primary care physicians" by the AMA include: General Family Medicine MDs and DOs, General Practice MDs and DOs, General Internal Medicine MDs and General Pediatrics MDs. Physicians age 75 and over and physicians practicing subspecialties within the listed specialties are excluded. This indicator is relevant because a shortage of health professionals contributes to access and health status issues.

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Total Population, 2014</th>
<th>Primary Care Physicians, 2014</th>
<th>Primary Care Physicians, Rate per 100,000 Pop.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missouri</td>
<td>6,063,389</td>
<td>5,072</td>
<td>83.6</td>
</tr>
<tr>
<td>United States</td>
<td>318,857,066</td>
<td>279,371</td>
<td>87.8</td>
</tr>
</tbody>
</table>

Data Source: US Department of Health & Human Services, Health Resources and Services Administration, Area Health Resource File, 2014. Source geography: County

Access to Primary Care Physicians, Rate per 100,000 Pop. by County, AHRF 2014

Access to Primary Care, Rate (Per 100,000 Pop.) by Year, 2004 through 2014

This indicator reports the rate of primary care physicians per 100,000 population by year.

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Missouri</td>
<td>70.36</td>
<td>69.06</td>
<td>68.63</td>
<td>68.26</td>
<td>68.09</td>
<td>73.74</td>
<td>82.21</td>
<td>82.64</td>
<td>82.86</td>
<td>82.27</td>
<td>89.65</td>
</tr>
<tr>
<td>United States</td>
<td>80.76</td>
<td>80.94</td>
<td>80.54</td>
<td>80.38</td>
<td>80.16</td>
<td>82.22</td>
<td>84.57</td>
<td>86.88</td>
<td>86.86</td>
<td>87.76</td>
<td>87.77</td>
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</tbody>
</table>
**Poor Mental Health**

This indicator reports the average number of mentally unhealthy days (during past 30 days) among sample respondents age 18 and older. Figures are multi-year estimates from the 2006-12 Behavioral Risk Factor Surveillance System.

<table>
<thead>
<tr>
<th>Report Area</th>
<th>Total Population (Age 18+)</th>
<th>Total Mentally Unhealthy Days</th>
<th>Average Mentally Unhealthy Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Missouri</td>
<td>4,332,155</td>
<td>17,222,189</td>
<td>3.8</td>
</tr>
<tr>
<td>United States</td>
<td>232,555,016</td>
<td>805,883,226</td>
<td>3.5</td>
</tr>
</tbody>
</table>

## ATTACHMENT 7 – Example Data List

### Map Data List

<table>
<thead>
<tr>
<th>Category 1</th>
<th>Category 2</th>
<th>Category 3</th>
<th>Category 4</th>
<th>Layer Name</th>
<th>Data Source</th>
<th>Geography</th>
</tr>
</thead>
</table>
| Missouri  Data | Health     | Mental Health | Missouri Mental Health Mapping and Ranking, DMH-MO 2016 (Missouri) | Missouri Department of Mental Health: 2016 | • State  
• County |
| Missouri  Data | Health     | Mental Health | Missouri Student Survey County Reports, DMH-MO 2016 (Missouri) | Missouri Department of Mental Health: 2016 | • State  
• County |
| Missouri  Data | Health     | Mental Health | Missouri Student Survey Data Portal, DMH-MO 2016 (Missouri) | Missouri Department of Mental Health: 2016 | • State  
• County |
| Missouri  Data | Health     | Mental Health | Status Report on Missouri’s Substance Use & Mental Health, DMH-MO 2016 (Missouri) | Missouri Department of Mental Health: 2016 | • State  
• County |
| Health     | Health Facilities / Professionals | Locations | Mental Health | Mental Health Facilities - Adult Services, SAMHSA Feb. 2017 | US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration: Feb. 2017 | |
| Health     | Health Facilities / Professionals | Locations | Mental Health | Mental Health Facilities - Emergency Services, SAMHSA Feb. 2017 | US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration: Feb. 2017 | |
| Health     | Health Facilities / Professionals | Locations | Mental Health | Mental Health Facilities - Residential Services, SAMHSA Feb. 2017 | US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration: Feb. 2017 | |
| Health     | Health Facilities / Professionals | Locations | Mental Health | Mental Health Facilities - Veteran Services, SAMHSA Feb. 2017 | US Department of Health and Human Services, Substance Abuse and Mental Health Services Administration: Feb. 2017 | |