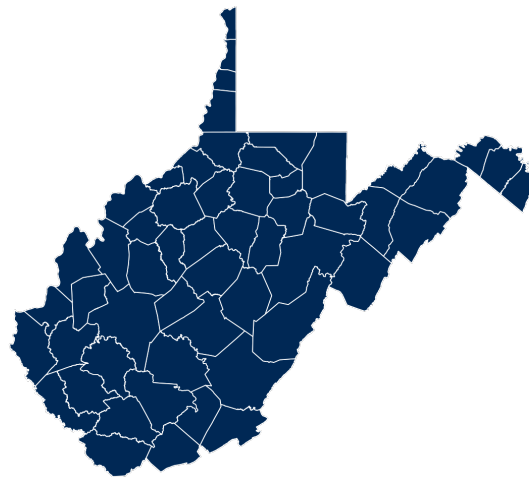




# **Services for Families and Children in the Greater Kanawha Valley**








Samuel Workman, Director

December 13, 2023



 **Contact Information:**

Director Sam Workman  
Institute for Policy Research and Public Affairs  
Rockefeller School of Policy and Politics  
West Virginia University  
1515 University Ave.  
Woodburn Hall, 221D  
PO Box 6286  
Morgantown, WV 26506

 +01 304-293-9306  
 304-293-6858  
 [sam.workman@mail.wvu.edu](mailto:sam.workman@mail.wvu.edu)  
 [policyresearch@mail.wvu.edu](mailto:policyresearch@mail.wvu.edu)  
 [@WVUPolicyRes](https://twitter.com/WVUPolicyRes)  
 [wvu-policy-research](https://www.linkedin.com/company/wvu-policy-research)  
 [policyresearch.wvu.edu/](https://policyresearch.wvu.edu/)

### **Acknowledgements & Disclaimers**

This project is made possible by funding from Think Kids with support from The Greater Kanawha Valley Foundation. The Eberly College of Arts and Sciences provided administrative support for the project.

While we acknowledge the support provided by Think Kids and The Greater Kanawha Valley Foundation, errors in content, style, or judgment in the report remain with the Institute for Policy Research and Public Affairs (IPRPA) at West Virginia University. Think Kids originally collected data underlying the report.

**Contents**

<b>1</b>	<b>Executive Summary</b>	<b>5</b>
1.1	Key Findings . . . . .	6
1.1.1	Service Density . . . . .	6
1.1.2	Service Diversity . . . . .	7
<b>2</b>	<b>Provider Density</b>	<b>7</b>
<b>3</b>	<b>Service Diversity</b>	<b>11</b>
<b>4</b>	<b>Recommendations for Data Infrastructure</b>	<b>13</b>
<b>5</b>	<b>Institute for Policy Research and Public Affairs Partnerships</b>	<b>15</b>
5.1	How To Cite This Report? . . . . .	15
<b>6</b>	<b>References</b>	<b>16</b>

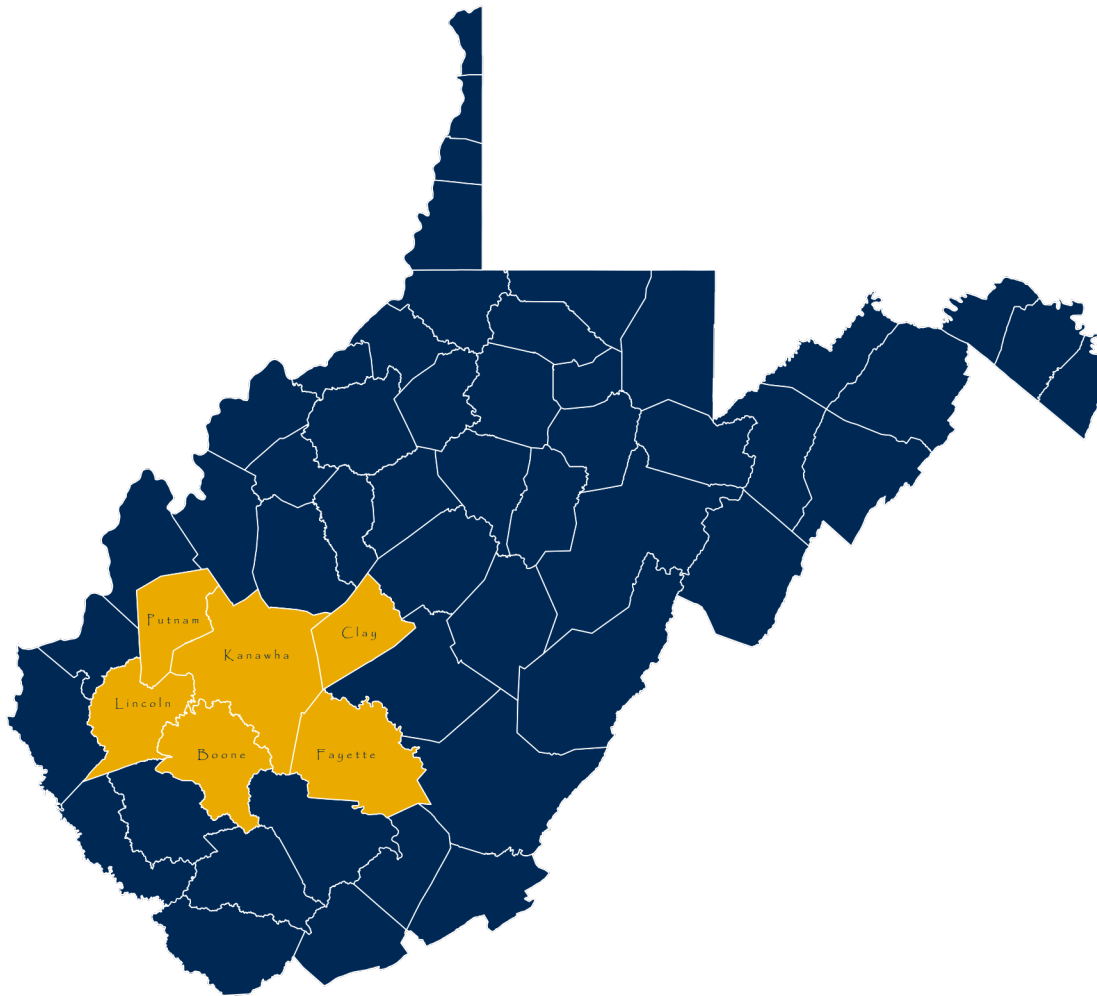
**List of Figures**

1	County Map of The Greater Kanawha Valley . . . . .	5
2	Physical Location of Services . . . . .	8
3	Geography of Provider Density . . . . .	10
4	Regional Service Profiles . . . . .	12
5	Service Profiles for Counties . . . . .	14
6	Service Availability by County . . . . .	14

**List of Tables**

1	Service Availability and Location . . . . .	8
2	Top Two City Locations by County . . . . .	9
3	Travel to Services . . . . .	11

## Greater Kanawha Valley



**Figure 1:** *The Greater Kanawha Valley Foundation Service Region.*

Source: Institute for Policy Research and Public Affairs at West Virginia University.

## 1 Executive Summary

In Fall 2022, *Think Kids* (TK) in Charleston, West Virginia, asked the *Institute for Policy Research and Public Affairs* (IPRPA) to produce data visualizations for the availability of services for families and children in the Greater Kanawha Valley. *The Greater Kanawha Valley Foundation* (TGKVF) ultimately funded their work in collecting services available in the region. *Think Kids* provided IPRPA with data containing names, locations, and services provided by 275 separate organizations in the Greater Kanawha Valley. Data were collected with an invitation by *Think Kids* for regional organizations to submit information for the study. IPRPA took no part in data collection. The analyses below should not be assumed to include all available service organizations. Nevertheless, these data are informative and suggest areas of concern for public service organizations.

The central task for IPRPA was to generate data visualizations that would be useful to TK, TGKVF, and their partners, including state and local officials. The project aimed to generate data visualizations suitable for display in local public health offices. The question then was what services and quantities were available in each of the Greater Kanawha Valley's six counties. A key difficulty in ascertaining which services are available pertains to services provided to county residents by organizations not physically located there. This was a key concern for both TK and TGKVF. Service provision that requires transportation to adjacent counties is more difficult for the vulnerable populations likely to require said services. In addition to these concerns, the density and diversity of services are not uniformly distributed over the six counties under study. *For example, Kanawha County provides the most service density (quantity of organizations serving families and children), but Fayette County provides the most diverse array of services.*

This public report outlines the key findings of our analysis and introduces our data visualizations and analyses. In addition, the report delves deeper into the data on service density, diversity, and the geography of the Greater Kanawha Valley. The report proceeds as follows. First, we provide an overview of key findings. Then, we analyze service density and diversity in the six-county region in separate sections. For both sections, we pay particular attention to services physically located in the county versus those available but not requiring client or patient travel to the service. We conclude our report with insights for future data collection, validity, and reliability.

## **1.1 Key Findings**

Below, we briefly detail the key findings of the report. Two matters of caution are warranted. First, these data represent a self-selected sample. Organizations may have chosen not to respond to TK's request for information. There are possibly systematic reasons why organizations chose not to respond. Likewise, responding organizations may have systematic characteristics that bias the depiction of services in this report.

The TK data also suffered from entry fatigue—some organizations seemingly did not provide some information because they did not want to list multiple locations. Similarly, the service organizations did not provide many items requested by TK. IRPRA cannot determine how systematic these omissions were in the data. Still, there are lessons to be learned from service location, density, and diversity that would allow elected officials, community leaders, and funders to target resources and efforts strategically.

### **1.1.1 Service Density**

- Kanawha and Fayette County have the greatest provider density. This density centers in Charleston, Fayetteville, and Oak Hill and connects through the Kanawha Valley.
- Only Kanawha County has a majority of providers physically within the county at just over

88 percent. The remaining counties have less than half of providers physically within the county, though Fayette County falls just short at nearly 47 percent.

- Service density for providers physically within a county is centered around Charleston, Fayetteville, and Oak Hill. No other municipality has more than eight providers (Hurricane).
- Transportation for services is a pernicious problem in the region. From county geographic centers to Charleston, Fayetteville, and Oak Hill, one-way distance to service averages nearly 62 miles. On average, travel time for round trips from these county centers is 2.68 hours.

### **1.1.2 Service Diversity**

- While Kanawha County has the highest service density, Fayette County has the highest service diversity within the county. Within data provided by *Think Kids*, Fayette County lacks only employment assistance and child care services. It houses 14 of the 18 other services within the county.
- Of services provided, community service assistance and programs hold the highest number of providers in the data. These are followed closely by mental health services. No other categories approach these two. Both community and mental health services see their highest numbers in Kanawha County.
- Food and clothing and healthcare assistance are densest in Fayette County, though many providers do not have physical locations there.
- No county in the data houses all the services in the data set.

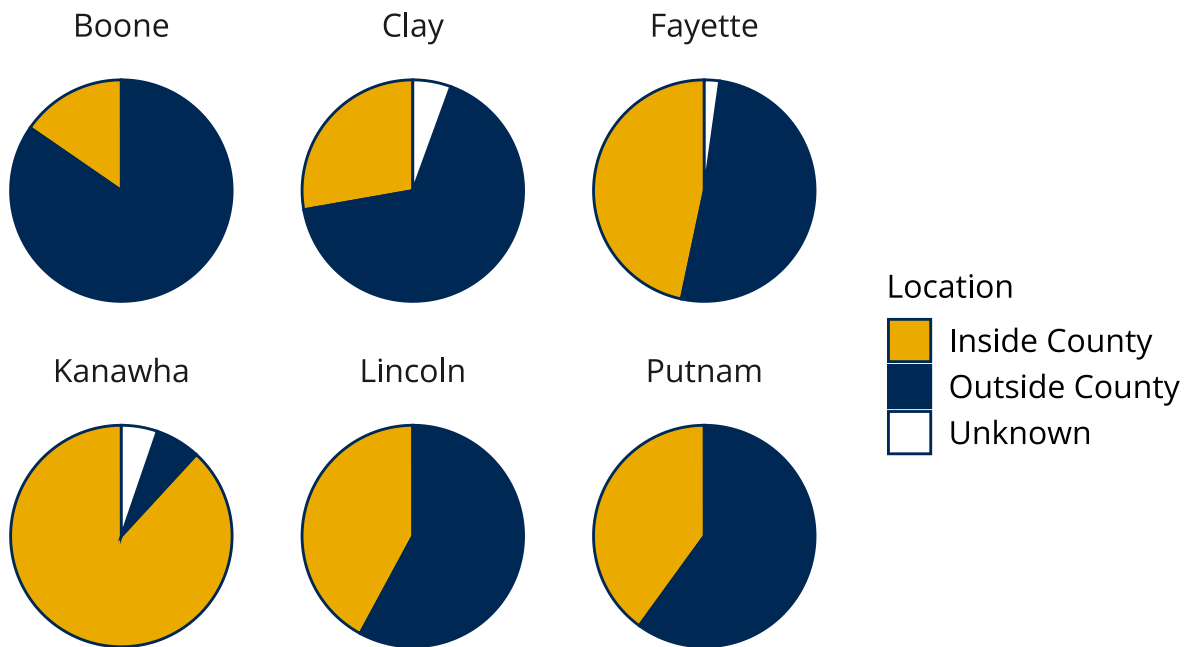
## **2 Provider Density**

This section details the extent and nature of provider density in the Greater Kanawha Valley region of Kanawha, Fayette, Clay, Lincoln, Boone, and Putnam counties. The state's capital, Charleston, lies in the heart of the region and contains the highest density of providers. The reader should note, though, that the state's second-largest city, Huntington, lies close to the region's western portion, making it a likely target for those seeking services. We account for Huntington as a possible service location within our distance of the service locations below.

A key question for *Think Kids* and *The Greater Kanawha Valley Foundation* was whether providers offering services to county residents have a location within that county. Figure 2 displays the proportion of providers with locations inside the county where the service is provided.

By far, Kanawha County is home to the most providers with locations inside the county. This is not surprising as Charleston is the state's seat of government and most populous city, and it contains one of the largest healthcare networks in the state, the CAMC Health System. Fayette





**Figure 2:** Physical Location of Services for Families in Children in the Greater Kanawha Valley.

Source: The Institute for Policy Research and Public Affairs at West Virginia University.

County falls just short of half of providers with locations inside the county. Seven providers did not identify their location across Clay, Fayette, and Kanawha counties.

**Table 1:** Service Availability and Location

County	Inside <sup>b</sup>	Outside <sup>b</sup>	Unknown	Total <sup>c</sup>	% Inside
Kanawha	67	5	4	76	88.16
Fayette	42	46	2	90	46.67
Putnam	12	18	0	30	40.00
Lincoln	8	11	0	19	42.11
Boone	6	33	0	39	15.38
Clay	5	12	1	18	27.78
<b>Total</b>	<b>140</b>	<b>125</b>	<b>7</b>	<b>272</b>	-

<sup>a</sup> Source: Compiled by the *Institute for Policy Research and Public Affairs* from data provided by *Think Kids*.

<sup>b</sup> Physically located inside or outside the county.

<sup>c</sup> Percentages calculated from rows will not sum to 100.

Table 1 displays the figures underlying service locations in more depth. The data set contains 272 providers delivering services in the Greater Kanawha Valley. Of these, only 140, or barely over half, are located physically within the county for which they provide services. Lincoln and Clay have the

fewest providers in or out of the county.

In Kanawha County, 88 percent of providers have locations there, with 67 inside the county and only five outside (though the locations of four providers were not given). Boone County is on the lower end, where only six of the 39 providers are located within the county. Of counties within the TGKV region, Boone and Clay see the sparsest set of services provided from within the county. As both counties are rural and remote, this exacerbates concerns about transit to services.

**Table 2:** *Top Two City Locations by County*

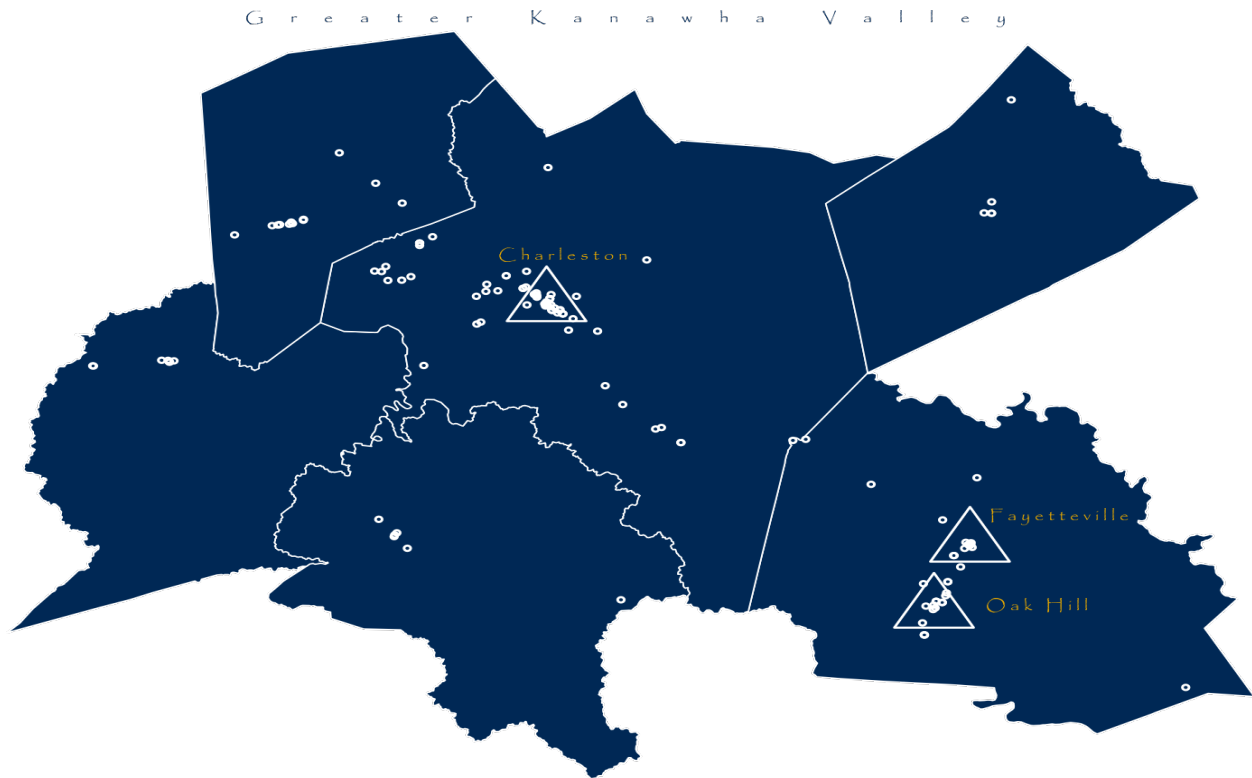
County	City	Providers <sup>a,b</sup>
<b>Kanawha</b>	Charleston	42
	St. Albans	5
<b>Fayette</b>	Fayetteville	17
	Oak Hill	14
<b>Putnam</b>	Hurricane	8
	Winfield	2
<b>Lincoln</b>	Hamlin	5
	Branchland	2
<b>Boone</b>	Madison	4
	Danville	1
<b>Clay</b>	Clay	4
	Ivydale	1

<sup>a</sup> Source: Compiled by the *Institute for Policy Research and Public Affairs* from data provided by *Think Kids*.

<sup>b</sup> Does not include providers who declined to provide an address. Table includes providers whose services are physically located within the given county.

Table 2 displays the number of service providers in a county for the top two municipalities in each county. Charleston, Fayetteville, and Oak Hill are the top municipalities for services in the data. Charleston is not surprising as it is the state capital and home to Charleston Area Medical Center (CAMC), one of the two largest healthcare systems in the state. More surprising is the locus of providers in Fayette County. Oak Hill is home to Plateau Area Medical Center, and Fayetteville provides the bulk of social services for the county. Still, the number of services available in these municipalities is impressive compared to the rest of the data.

Figure 3 displays service provider locations within the counties geographically. In Figure 3, the clusters in Table 2 are easy to see. The figure shows service providers clustered around Charleston, Fayetteville, and Oak Hill but also shows a few providers snaking north through the river valley.



**Figure 3:** *Geographic Location of Providers with Locations Inside Counties.*

Source: The Institute for Policy Research and Public Affairs at West Virginia University.

What is notable in the other counties is that few providers are clustered far from one another and from the denser centers in these three municipalities. It should be noted that Huntington is not far from the region's western portion, and many seeking services may go there.

Table 3 puts numbers on these distances. The table displays the distance from each county's geographic centroid (the geographical center) to Charleston, Oak Hill, and Fayetteville. The table displays the one-way mileage and minutes to drive to service at one of these dense clusters. It also displays the round-trip travel time in hours and minutes. Notably, only the center of Putnam County to Charleston is under thirty miles and 30 minutes. The average travel time to these clusters is over an hour and 81 miles. We include Huntington in Table 3 assuming that Huntington might hold service density close to that of Charleston. Lincoln and Putnam Counties are 35 and 40 minutes away (again, calculating from county centroids). However, we do not have data on service density or diversity in Huntington. Given the scope of this study, these services would certainly not be physically located within the Greater Kanawha Valley.

Service density, with physical locations inside the region's counties, poses a problem for reaching vulnerable populations likely to need or seek out these services. However, this analysis clarifies that locating more services within the counties is not a panacea. Geographically, services are both few and clustered together within counties. The far western edges of Boone and Lincoln counties and the border of Clay and Kanawha counties lack service providers with locations. We lack the

**Table 3:** *Distance and Duration of Travel to Services from Counties*

County	City	Miles <sup>a,b</sup>	Minutes <sup>c</sup>	Hours <sup>d</sup>
<b>Clay</b>	Charleston	50.21	58	1.93
	Fayetteville	39.77	56	1.87
	Oak Hill	46.54	65	2.17
	Huntington <sup>e</sup>	101.28	108	3.60
<b>Putnam</b>	Charleston	24.73	27	0.90
	Fayetteville	75.81	90	3.00
	Oak Hill	75.19	83	2.77
	Huntington	40.14	42	1.40
<b>Lincoln</b>	Charleston	39.58	67	2.23
	Fayetteville	90.72	131	4.37
	Oak Hill	90.72	124	4.13
	Huntington	35.85	59	1.97
<b>Boone</b>	Charleston	42.63	62	2.07
	Fayetteville	77.05	107	3.57
	Oak Hill	69.59	99	3.30
	Huntington	87.61	107	3.57
<b>Average</b>		<b>61.71</b>	<b>81</b>	<b>2.68</b>

<sup>a</sup> Source: Compiled by the *Institute for Policy Research and Public Affairs*.

<sup>b</sup> Calculated using county geographic centroids to city latitude and longitude.

<sup>c</sup> One-way travel time in minutes. Rounded to the nearest minute.

<sup>d</sup> Round-trip travel time in hours.

<sup>e</sup> Huntington, West Virginia, does not fall within the Greater Kanawha Valley but is a likely place to seek service for its western half.

data to know whether this stems from population density and lack of a critical mass for service seekers or a healthcare infrastructure problem. The sparsity, travel time, and distance for these rural populations make seeking services onerous.

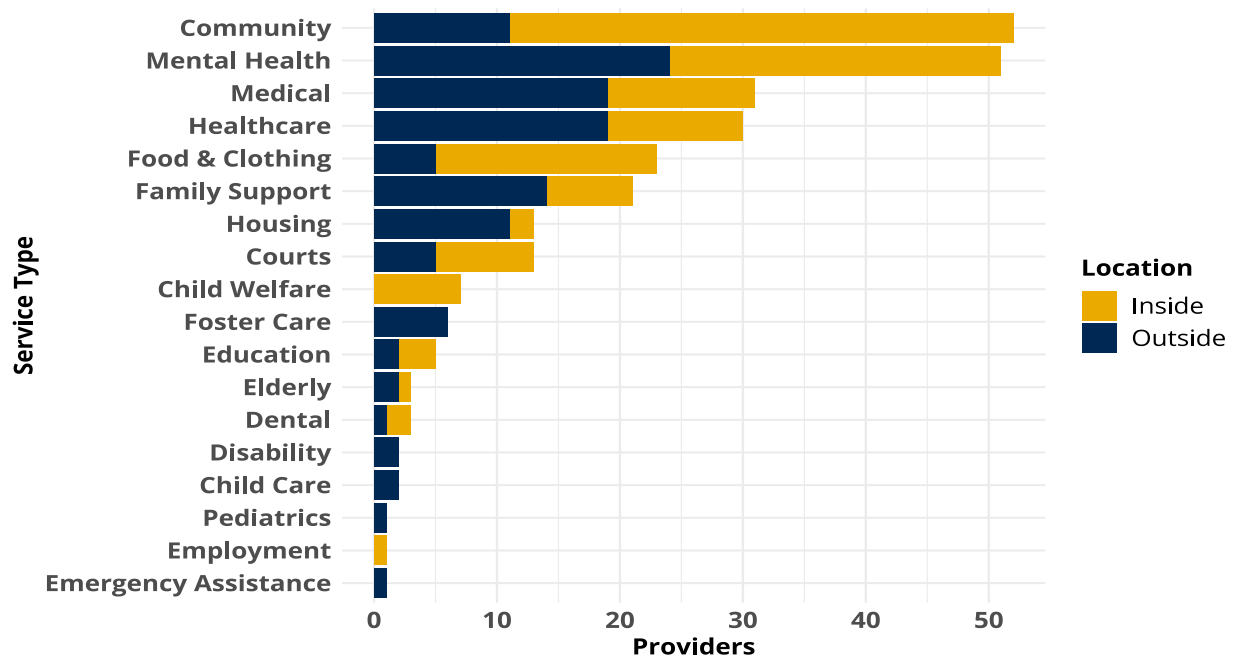
So far, we have discussed service provider density within the counties. Another aspect of service provision is the array of substantive services available in the county. Put, a county might have a dense set of service providers but may also offer relatively few different kinds of services. The next section explores service diversity regionally and within each county. We also offer a relatively simple data visualization for ascertaining whether a service type is available in each county.

### 3 Service Diversity

Service diversity was a challenge because service providers were allowed to list multiple services within the same data cell. With a choice to make, we presumed the first service listed was the

organization’s focus. The reader should, however, understand that many of these organizations offer more than one service. Our data collection and organization recommendations discuss how future efforts should deal with this data issue. We begin our discussion of service diversity with a regional profile across services.

Figure 4 displays the makeup of services for the whole region. Community Service and Mental Health far outstrip all other services in the number of providers available in the region. Along with Food and Clothing, Child Welfare, Education, Dental, and Employment services, most of these providers are located within their counties of service.



**Figure 4: Regional Service Profiles**

Source: The Institute for Policy Research and Public Affairs at West Virginia University.

Figure 4 also shows that many important services are scant in the region and largely unavailable within the county for those seeking service. For example, emergency services, employment services, and pediatric services see the lowest levels of providers, two of which are not located physically within the county. This makes sense for employment services given modes of service delivery—employment services are delivered far more often at the state and federal levels. The state normally connects residents with available jobs, while most job retraining programs are federally funded, even if operating locally.

Emergency services present a different problem. Most disaster response, mitigation, and recovery funding comes from the federal government as pass-through funds to states, localities, and other entities in the private and non-profit sectors within the community. While the data likely underestimate the number of providers for emergency services, it is telling that more providers do not describe their services in those terms.

This area needs better documentation and more attention in new iterations of collection and analysis. The stressors of climate change and West Virginia's strategic position in the mid-Atlantic region will see it play a major role in future evacuations from its nearest neighbors. These residents will seek emergency resources and services as they travel through the state to areas of haven. Moreover, the U.S. Environmental Protection Agency (EPA) suggests that one of the major implications of changing weather patterns for West Virginia will lead to increased, larger flooding (EPA 2016). This suggests an increased need for service provision around the problems of intense flooding.

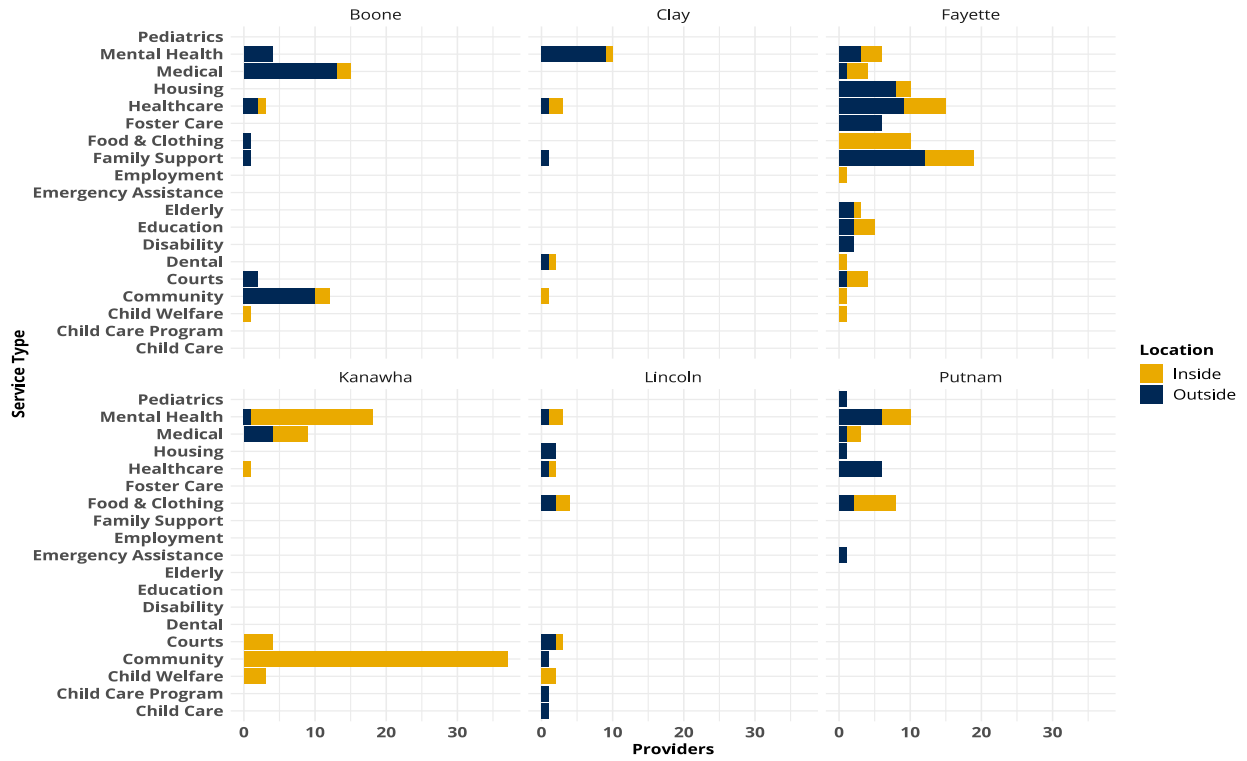
West Virginia saw 285 flood events in 2018, the second highest number recorded in the 21<sup>st</sup> century according to FEMA's FEMA (2023) [historical flood risk dashboard](#). This speaks to the need to assess service provision around emergency services, especially those related to hazards induced by both natural and human systems. Some categories in 4 overlap with what we would normally classify alongside emergency services (e.g., food and clothing assistance). A better accounting of the inventory and deployment of these providers in emergencies is a worthwhile extension of this project and future assessments.

Figure 5 provides the same breakdown of service provider diversity, drilling down to the county level. In Figure 5, it is a bit easier to tease out diversity by county. Fayette County again fills the most bins for service types. While Kanawha County has the greatest density of providers, these are disproportionately focused on Community Service. While diversity in Fayette County is high, categories like Healthcare and Family Support remain predominantly outside the county. Counties like Clay and Putnam have a lack of diversity existing alongside low density, presenting critical needs for linking these residents to services elsewhere or building capacity within those counties (with the usual caveat that Putnam is located near to Huntington, for which we have no data).

Finally, as part of the analysis, *Think Kids* requested a data visualization of service availability suitable for public information and decision-making. Figure 6 presents the result of our analysis on *likely* service availability within each of the Greater Kanawha Valley's six counties. The goal of the visualization was to make clear likely service availability quickly for all services in all counties. The version appearing in Figure 6, while not the same color scheme as the delivered version for public health offices, is likewise accessible to colorblind individuals. Some eight percent of men are colorblind, making it an important consideration for data products for aiding public service delivery.

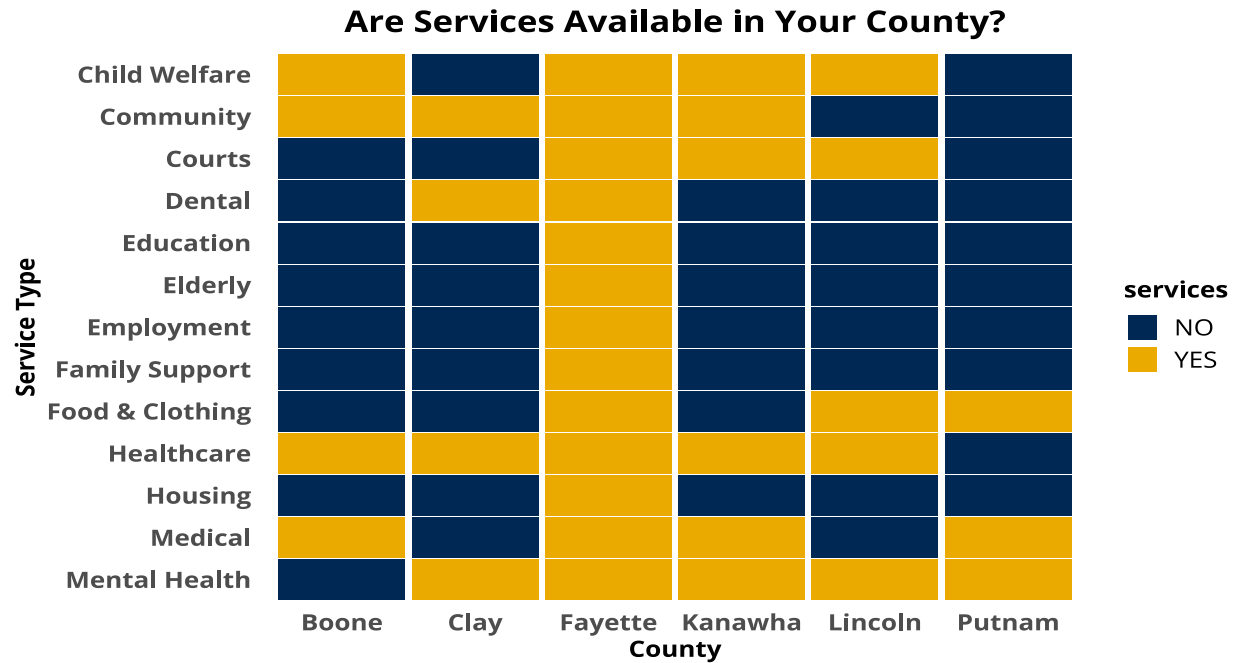
## 4 Recommendations for Data Infrastructure

Our analysis points out the need for better collection over a longer period for understanding service provision in the Kanawha Valley. There are several areas for improvement of data collection and organization to facilitate information uptake. Think Kids' initial template is useful for spurring further analysis and understanding pitfalls to avoid in the future. We briefly note these below:



**Figure 5: Service Profiles for Counties**

Source: The Institute for Policy Research and Public Affairs at West Virginia University.



**Figure 6: Service Availability by County**

Source: The Institute for Policy Research and Public Affairs at West Virginia University.

- Ideally, this data would be collected annually and paired with a short survey that assesses both the services as they look outward to clientele and inwardly at the health and vibrancy of the service provision community.
- A more formal and systematic database and entry that captures multi-location service providers with separate organizational features should be developed. This would allow a more systematic and accurate assessment of geographical variability—especially for regional service providers.
- The data collection should allow for diversity of service provision but require ranking of services that are the organization's focus. Rank ordering would yield a fine-grained catalog of services available and prioritized in the region.

## 5 Institute for Policy Research and Public Affairs Partnerships

The Rockefeller Institute for Policy Research and Public Affairs (IPRPA) in Eberly College at WVU is a non-partisan source of research, data, and analysis for state and local officials in West Virginia and the broader Appalachian region. IPRPA conducts basic and applied research on various problems important to the region and related to public policy and broader social, political, and economic transitions.

We employ the full range of qualitative and quantitative research methodologies to societal problems to help public, non-profit, and private sector partners plan, strategize, and adapt to changes and challenges in the region, be they physical or biological, economic, governmental, or societal. We have extensive expertise in developing and maintaining large-scale data infrastructures to answer fundamental questions about public policy and its effects on communities. Our partnerships span the public, nonprofit, and private sectors and develop research co-designed with our stakeholders, clients, and communities, improving the use of research and data-driven decision-making in tackling important policy problems. The Institute aims to spur evidence-based policymaking and uptake of research in the state and region.

Please contact the *Institute for Policy Research and Public Affairs* (IPRPA) for questions and technical assistance in pursuing any recommendations outlined here.

### 5.1 How To Cite This Report?

To cite this report, please use the following format, adapted for citation style:

Workman, Samuel. 2023. "Services for Families and Children in the Greater Kanawha Valley." *Institute for Policy Research and Public Affairs (IPRPA), West Virginia University (WVU)*, IPRPA-2023-004-PO. December 13, 2023.



## 6 References

- EPA. 2016. *What Climate Change Means for West Virginia*. Environmental Protection Agency. Accessed May 17, 2023. [https://19january2017snapshot.epa.gov/climate-impacts/climate-change-impacts-state\\_.html](https://19january2017snapshot.epa.gov/climate-impacts/climate-change-impacts-state_.html).
- FEMA. 2023. *Historical Flood Risks and Costs Dashboard*. Federal Emergency Management Agency. Accessed December 13, 2023. <https://www.fema.gov/data-visualization/historical-flood-risk-and-costs>.