

# Leveraging Data for Economic Recovery: A Roadmap for States

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August 2020

# About the Report

This report was compiled by staff of the State Chief Data Officers Network under the Beeck Center's Data + Digital portfolio. We compiled these findings based on insights from 14 interviews with subject matter experts, advocates, public servants, and appointed officials in state government and analysis of 43 governors' State of the State Addresses for 2020. We used this research to identify key policy areas where states had a central role in administering or allocating funding for services. We isolated use cases for specific state datasets or data analysis strategies under each issue area. We ranked these use cases by relevance to COVID-19 and to economic mobility, as determined by definitions compiled by the US Partnership on Mobility from Poverty.

We are deeply grateful to the many experts who contributed to our research. Our thanks go out to Genevieve Gaudet, Ashley Wilder, Steve Spiker, Alisha Hyslop, Carlise King, Christina Becker, Sam Harvell, Missy Coffey, Amy Hawn Nelson, Adelia Jenkins, Emily Berkowitz, Kathryn De Wit, Rachel Anderson, Paige Kowalski, and the members of the State Chief Data Officers Network.

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# Introduction

The experience of poverty in the United States is constricting and complicated. Paving the path for vulnerable people to reach economic stability requires governments to provide multi-faceted support to people facing multiple intersectional issues at once. Data provides critical infrastructure to decision-makers who need to configure a safety net of services for those in need. Sharing data across siloed departments and funding streams can be difficult, requiring a strategic approach that targets high-value use cases for data-sharing and use.

Chief Data Officers (CDOs) play a central role in how states use data to inform decisions. They provide a technical backbone in government and critical infrastructure for disaster response. CDOs conduct a number of data and analytics-related tasks that may overlap with [executive performance management, budgeting, or policy analysis programs](#). The Beeck Center recently published a report on the [evolving role of CDOs](#) which goes further into detail about changing demands on CDOs in government.

CDOs can also spread knowledge about policy frameworks that improve the quality and efficacy of data use. For example, the state of Connecticut was the first to adopt [two-generational legislation](#) that brings together community experts and decision-makers to examine family-level economic self-sufficiency. This type of policy can directly inform how CDOs advise departments to use data, as they might remind program staff to build IDs for families into data collection processes. CDOs could also provide context around using geographic information or trainings on how to ethically collect, store, and apply sensitive data.

Policy awareness is particularly crucial in the current public health crisis. CDOs must quickly respond to public and official demands for information about the spread of COVID-19. Data about the spread confirms that the virus disproportionately affects poor people and people of color, [who are more susceptible to contracting the virus](#) and are [more economically vulnerable in the fallout from pandemic-related issues](#). This dynamic will impose additional pressure on labor, as many essential workers are the [same people who are most economically and medically at risk](#). Government decision-makers must consider that in this time, people in vulnerable situations not only need support to improve mobility out of poverty, but to maintain a basic level of economic stability that will help them to survive. Our hope is by implementing the principles and steps laid out in this roadmap, data can be applied to help people in vulnerable situations not only survive but start on a path of economic mobility to thrive in the years ahead.

## Why focus on economic recovery?

The COVID-19 pandemic has highlighted the critical role that state governments play in people's day-to-day lives. While our scan of governors' policy priorities before COVID-19 showed many states with commitments to improve economic mobility, leaders have had to overhaul those priorities to respond to more immediate needs.

The pandemic and ensuing economic crisis demonstrate that many of the programs and services operated by state governments simply don't work for the people who rely on them the most. Governors and their states are at the forefront of economic recovery as they are responsible for implementing most federal safety net programs. States generally oversee decisions about workforce development, distributing public benefits, education, broadband infrastructure, health insurance, and more.

Response efforts like distributing Pandemic EBT benefits and delivering PPE to medical providers will continue for months. But recovery efforts must be sustainable, infrastructural, and forward-looking. Policy makers will need to differentiate from response and recovery functions as they decide how to respond to each new wave of the virus over the coming years. An essential element of planning for recovery is taking into account the ways in which separate social programs interact with one another to avoid changing one system and overburdening another. States should lean heavily on data to make these difficult decisions on the path toward economic recovery.

# Political Context & Background

The CDO role can vary greatly from state to state depending on what department the position is seated in and whether they share any responsibilities with a Chief Information Officer, who typically oversees enterprise information technology (IT) and IT business practices. The State CDO Network published this framework to help [state CDOs lead successful data programs](#).

## *The Framework for Success*

LEAD	Designate an executive level data leader as the Chief Data Officer
PLAN	Create a strategy, governance structure, and inventory of data
BUILD	Increase the capacity of stakeholders to effectively use data
SHARE	Establish clear and predictable processes for data sharing
ANALYZE	Provide mechanisms and platforms to enable data integration and analysis
SUSTAIN	Ensure ongoing support exists for data efforts

State CDOs who commit to an economic mobility agenda will need to affect statewide data strategies that prioritize collaboration and interoperability across departments. ***This role is essential to developing multi-agency emergency response functions to COVID-19 crises, and will continue to be crucial in coordinating statewide data-driven plans for economic recovery.***

CDOs should be active in tech procurement to help buyers prioritize sustainability, interoperability, and usability in data and tech solutions. CDOs might help implement user-centered processes to surface crucial insights to inform [state software purchasing decisions](#). For example, department buyers may assume that frontline workers would make better decisions if they just had access to more powerful data, but, as data experts, CDOs may know that frontline workers would make better decisions when simpler, more usable systems allowed them to spend more face-to-face time with their clients.

CDOs are most effective at facilitating collaboration when they help state agencies and departments build internal capacity to use data. Our interviewees agreed that state agencies, especially those leading the response to COVID-19, would benefit from in-house data experts who could understand details of their policy area. As much as possible, state CDOs should create space for strategic planning and capacity building around data use within departments.

# Data Environment

## *Maintaining data management quality*

The first thing to go out the window in the event of a crisis is time-consuming documentation and quality checks on essential data. While fast-and-loose data sharing may be the only way CDOs are currently able to operate and meet states' needs, they will face significant usability challenges in the future without robust documentation. CDOs in Kentucky and Oregon are focusing on "train-the-trainer" approaches or data governance maturity assessments to ensure that data owners across departments are able to conduct good data management. Others are making notes of which data is "skipping" usual quality checks to go back and document those datasets later. For example, many CDOs are engaging for the first time with data using administrative healthcare (HL-7) codes and don't already have tools to interpret it. But resources are too tight to add metadata before the data is shared to other agencies. Policymakers should be aware of the infrastructural nature of the data that CDOs are providing and build out resources and staff for CDOs to maintain this infrastructure into the future.

## *Understanding disparate impacts of COVID-19*

***With a magnifying glass now on states' data reporting functions about the effects of COVID-19, advocates and media are challenging governments to take a closer look at gathering and reporting data disaggregated by race and ethnicity.***

As of the date of publishing, Data for Black Lives, a group of scientists and activists leading data reform for racial justice, have [only found 16 states publishing data on COVID-19](#) disaggregated by race. CDOs have pointed out that while they would like to collect data that allows them to analyze whether social programs carry racial bias, many legacy data systems are not even capable of collecting data on race or ethnicity, or they collect it using decades-old classification standards. States need to be better on this from the ground up. Data strategies for economic recovery must take into account the disparate short- and long-term impacts of COVID-19 and begin working to overcome the infrastructural barriers to accurately reporting disparate impacts by demographic group.

## Risks & Challenges

### *Finding the right-sized solution*

Integrated data is not the end-all, be-all. Governments should make a cultural shift toward [“lean data collection” and sharing](#) that prioritizes residents’ privacy and consent. Coordinating data sources rather than integrating them can help preserve data privacy by opting not to integrate or share sensitive data without consent from users. This is particularly important for programs collecting data from people in vulnerable situations who can be represented multiple times across systems and are more susceptible to erosion of privacy. If CDOs intend to build technologies that act as “matching machines” and not full integrations, ensure that stakeholders know the benefits and limitations of this model.

### *Handling sensitive data responsibly*

Much of state governments’ response to COVID-19 will involve [identifying and tracking vulnerable populations and their needs](#). People in vulnerable situations may be people who have low incomes, or who are unemployed, homeless, racial/ethnic minorities, children, or seniors, depending on the program in question. CDOs should stay aware of the various conditions of sensitive data-sharing to avoid increasing the privacy risk of individuals represented in state data.

#### *EXAMPLE: HANDLING CHILD-LEVEL DATA*

Multiple interviewees noted that child-level data from early childhood programs should not necessarily be used to predict economic outcomes. Not only do children and their parents rarely have a chance to opt out of longitudinal systems, but giving caretakers information on a child’s potential economic standing based on early childhood indicators can lead to discriminatory practices, as data users may make subjective assumptions based on imperfect evidence. Some states choose not to include early childhood program data in integrated or longitudinal data systems for these reasons. CDOs can instead help program staff aggregate data by cohort or neighborhood level to avoid singling out children from marginalized socioeconomic backgrounds.

Decisions about how to share health data around COVID-19 have varied by state. The CDC released guidance on how to handle HIPAA-protected data from public health agencies, but states are applying guidance in different ways. For example, the Indiana Public Health Commissioner has mandated that the Indiana Management Performance Hub and other essential state agencies be extended HIPAA protection



as partners of the health department. State agencies in Indiana have been able to quickly share important data thanks to this measure, and recently coordinated a statewide sampling study to test the incidence of COVID-19 positives compared to ad hoc testing counts. As these short-term allowances end, states will need to document new data governance models that both enable efficient administration and prioritize the privacy and consent of those represented in the data.

### *Facing budget deficits*

[State revenues for the 2021 Fiscal Year](#) are being regularly updated as COVID-19 spreads across more communities. ***The reality is that many state CDOs are still fighting an uphill battle to ensure that policymakers and other state departments are aware of the fact that data should be treated as critical infrastructure in a crisis.*** Without protection for CDO budgets and real investment in data use in government, states may lose this infrastructure and the ability to effectively share and apply data across departments.

# Roadmap to Economic Recovery

State CDOs need actionable recommendations to determine which data can lead to meaningful impact on economic recovery from COVID and increased mobility from poverty for residents. Our research identified four clear issue areas where governors and state officials listed explicit state-level priorities for policy reforms in the coming years. These are not the only policy areas where CDOs will be asked to assist with economic recovery efforts. But each issue area contains a critical mass of actionable use cases for state CDOs to use data for economic recovery.

*KEY ISSUE AREAS FOR STATES' ECONOMIC RECOVERY*



The following use cases are intended to help state CDOs leverage data to support public servants, policy makers, and their constituents through economic recovery from COVID-19. These use cases may generate any of the following outputs: **inform policy and spending, improve program operations, improve integrated data, inform the public, create mapping and visualizations, and assemble new data.** Each use case varies in complexity, from low, to medium, to high. This roadmap contains a variety of use cases so that CDOs might find opportunities to apply data at the level of their state government's capacity, with a vision to work toward more complex and impactful use cases in the future. The steps outlined in this roadmap will vary from place to place and are simply intended to provide an outline of requirements for completing each use case. CDOs should use these recommendations to focus their efforts and make the case to state leaders that strategic data use is foundational for effective economic recovery from the cross-cutting crises currently affecting state governments and residents.

## A. Workforce & Education

Workforce development programs at the state level are structured around the [Workforce Innovation and Opportunity Act](#), landmark legislation passed in 2014 to strategically align state programs to provide “employment and training services for adults, dislocated workers, and youth.” WIOA-related programs increasingly rely on data and analysis outside of state labor departments, primarily pulling in data from Education and Health and Human Services to understand [cradle-to-career pipelines](#). WIOA makes it explicit that programs should target hard-to-serve individuals like reentering citizens, people with limited English proficiency, or people who have experienced homelessness. Workforce development decision-makers should strategically apply data to adapt programs to the needs of “hard-to-serve” populations.

The COVID-19 pandemic has fundamentally reshaped the American workforce. With record unemployment levels, a workforce moving online, and new levels of risk exposure for essential workers, states must ensure that their workforce programs are adapting to a new reality. Schools will need to keep track of students at risk of disengaging, now taking classes online. Workforce programs must be as accessible and robust as possible to reach and re-skill people whose industries are suffering. States should begin to adapt their programs to meet the changing needs of the economy and secure the future of their workforce.

### *A1. Find industry gaps and adapt higher education opportunities*

**Data on industry gaps and higher education majors should be used to inform policy and spending and create mapping and visualizations for**

Workforce development agencies can begin publishing and applying data to track shifting industry needs and supporting educators to meet those needs. While many states already publish some gap analysis between industry needs and university offerings, this data is often not accessible, or easily applicable by educators in decision making positions. Utah’s Department Workforce Development Services [rolled out a Cluster Acceleration Partnership in 2014](#) that disbursed grants to local higher education institutions for programs meeting [critical needs in the state’s workforce](#). Data on state workforce supply and demand can help inform policies that actively support educators’ efforts to adapt. Open, accessible, and regularly updated analysis on industry needs should be a foundational resource in states’ ongoing efforts to understand labor market shifts.

COMPLEXITY: LOW



- Does not require sensitive data
- Most data is already publicly available through state Labor Market Information systems and State Longitudinal Data Systems
- Requires enhanced outreach and user research with higher education stakeholders
- Requires more tightly integrating and presenting available data

PROGRAMS OR DATA SOURCES	CDO ROLE
Unemployment Insurance Data Labor Market Information State Longitudinal Data Systems (or Primary and Secondary Education Data) Higher Education Data	Convene stakeholder conversations to better understand user personas of the individuals who can best leverage this data for action and identify the most effective way to deliver data to them.

*A2. Integrate workforce data with programs for “hard-to-serve” individuals*

Data on hard-to-serve populations should be used to **improve program operations** and **improve integrated data** when WIOA data is part of integrated data systems.

Decision-makers shaping workforce programs must have access to a cross-section of data on vulnerable populations in order to meet WIOA guidance for serving hard-to-reach populations. Data-sharing across TANF and WIOA is a particularly high opportunity area. WIOA changed the federal priority to "hard-to-serve" populations and encourages states to co-plan across TANF, SNAP, vocational programs, and rehabilitation programs to serve vulnerable job-seekers. Depending on the local context and the availability of data, states may also choose to focus specifically on

rural populations or reentering citizens. [Mississippi Works created a common intake and reporting](#) form to ensure that applicants for WIOA programs are also matched to social services and relevant state services.

*COMPLEXITY: MODERATE*



- Requires sharing of protected data across agencies
- Requires an MOU or data sharing agreement
- Requires matching and integration of data where records may not share standard unique identifiers

PROGRAMS OR DATA SOURCES	CDO ROLE
WIOA Program Data TANF, SNAP, other benefits Unemployment Data Corrections Census/American Community Survey	Engage partner agencies in defining the objective for use of data.  Identify which data sources and elements (fields) from each source are necessary to support the objective  Identify technological resources or needs to facilitate the sharing and matching data  Support development of any necessary data sharing agreements

### A3. Coordinate data for early warning signs in disengaged youth

**Data informing early-warning signs for disengaged youth should be used to assemble new data and improve program operations.**

[Disengaged youth](#) are teenagers and young adults between 16 and 24 who are neither in school nor employed. Early warning signs for disengagement include [attendance, behavior, and course performance indicators](#). Matching relevant data on chronic absenteeism and performance to indicators around social challenges like facing homelessness or encounters with the criminal justice system can help educators craft tools that provide students with the attention and help they need. This issue is particularly relevant as unemployment levels and health risks are likely to disparately impact low-income families and create difficult environments for at-risk youth. KYSTATS, the centralized data team that runs Kentucky’s education longitudinal data system, responds to requests for data and supports the development of tools to analyze educational attainment. KYSTATS recently published a [Youth and Young Adults dashboard](#), and previously created an early warning system for counselors to support students in [persistence toward graduation](#), which can now be easily adapted by policymakers in Kentucky and other states to support students facing family challenges related to COVID-19.

COMPLEXITY: HIGH



- Requires sharing of protected data across agencies
- Requires an MOU and/or data sharing agreement among multiple agencies
- Data must be shared and integrated on a timely basis at regular intervals
- Requires matching data across multiple systems where records may not share standard unique identifiers.
- Requires strong research and subject matter expertise
- Data must be accessible in some form for practitioners

PROGRAMS OR DATA SOURCES	CDO ROLE
<p>State Longitudinal Data Systems (or Primary and Secondary Education Data)</p> <p>Juvenile Corrections</p> <p>Juvenile Justice programs</p> <p>HMIS</p>	<p>Engage partner agencies and stakeholders in properly scoping the objectives and frequency of intervals for data exchanges.</p> <p>Identify which data sources and elements (fields) from each source are necessary to support the objective</p> <p>Identify technological resources or needs to facilitate the sharing and matching data</p> <p>Support development of any necessary data sharing agreements</p> <p>Identify end user needs</p> <p>Scope and advise on mechanisms to provide integrated data sets and to end users and practitioners through dashboards or reports</p>

*A4. Track school readiness through current early childhood programs*

**Data on school readiness in early childhood should be used to improve program operations and improve integrated data over time.**

Various programs across departments are tasked with serving children in early childhood, or from birth to age five. Researchers and policy experts working on early childhood issues struggle to navigate collaborations from outside of state

government and have noted that programs serving the same population within the state may sometimes be unaware of each other or the data they're collecting. School readiness in early childhood depends on parents' access to childcare, which is likely to suffer under the current crisis. Unifying early childhood programs at the state level to track school readiness will help states better understand long-term effects of the current crisis on cradle-to-career outcomes, and build rapport across departments that serve children in early childhood. Minnesota runs a successful [Early Childhood Longitudinal Data System](#) that connects Head Start and Pre-K programs to childcare providers and other caretakers before entering elementary school. States can learn from this effort to pull early childhood data into integrated data systems, taking necessary risks and precautions for sensitive data into account.

*COMPLEXITY: MODERATE/HIGH*



- Requires sharing of protected data across agencies
- May require new or additional state level data collection efforts
- May require an MOU and/or data sharing agreement
- Requires matching data across multiple systems where records may not share standard unique identifiers.



PROGRAMS OR DATA SOURCES	CDO ROLE
Early Childhood Integrated Data Systems	Convene stakeholders and develop an appropriate scope
Early Childhood Program Data	Compile data dictionaries and support identification of relevant data sources and elements
Childcare/Pre-K Access Data	
Child Care Subsidies	
Child Welfare Enrollments	<p>Conduct or support a data audit to determine if gaps exist and if additional data collection is necessary</p> <p>Identify technological resources or needs to facilitate the sharing and matching data</p> <p>Support development of any necessary data sharing agreements</p> <p>Identify and support development of information delivery mechanisms - dashboards, reports, aggregate datasets</p>

*A5. Compile and publish accessible information on training and certification*

**Data on available certification and training opportunities should be published to inform the public and used to improve integrated data systems over time.**

As essential workers risk higher exposure to COVID-19 and remote work opportunities become more feasible, states should be prepared to reskill the workforce en masse for new opportunities. Although many states currently publish data or information on available certification and training programs, this information is not often accessible or easy to apply for. States should work with designers or program staff to identify pain points in applicants’ journeys, and use data to bolster access to information around available opportunities. North Carolina has a one-stop portal called [NC Works](#) for job seekers to learn about education and training opportunities and find career centers. Data on training and certifications should not

only be stored in WIOA data but also in education longitudinal data systems where schools record students' participation in certification and early college programs. In many states, certification and training data are still not included in longitudinal data systems. Addressing this gap would both help provide better data publicly to workers and ensure that educators and program staff are equipped to understand the effects of these programs in the long term.

*COMPLEXITY: LOW*



- Unlikely to require an MOU or data sharing agreement
- Requires making existing public data more accessible to a defined audience
- Can use aggregate data without PII to evaluate cohorts from SLDS data
- States with longitudinal data systems may already have information about career and technical education programs that can be easily published online

PROGRAMS OR DATA SOURCES	CDO ROLE
State Longitudinal Data Systems (or Primary and Secondary Education Data) WIOA Program Data	Support user research and analysis Leverage existing open data platforms to enhance access to data Develop or support development of information resources to end users

## B. Health & Benefits

As public health officials lead the charge to implement comprehensive testing measures and guide the country toward safe reopening, state governments will need to account for the effects of health crises on economic stability. Public health and social benefits are intricately intertwined as social determinants of health include various indicators dictated by income and class. The more that low-income people are exposed to public health risks, the more they will need to rely on social benefits in order to stay afloat. State governments have an obligation to examine these issues in tandem and consider how data might expose the linkages between pressures on public health and social benefits programs.

COVID-19 is already placing an unprecedented strain on social benefits systems. The largest immediate strain has been around unemployment benefits, but in the long term and as people begin to endure months of opening, closing, and reopening economies, other benefits programs will begin to see increases in applications and uptake. Healthcare costs are an important factor in understanding the pressures on low-income people during this downturn. Policymakers might also consider the strains that the crisis will place on mental and behavioral health, not limited to people with substance abuse or domestic violence issues, which will in turn affect essential workers who will be important for keeping economies afloat in the long term. States should make concerted efforts to examine the connections between public health programs and social benefits to ensure that workers receive the care to which they are entitled.

*B1. Target safety net benefits to individuals with increased healthcare costs*

Data on healthcare costs and effects on social benefits should be used to **inform policy and spending** and to create **mapping and visualizations** for policymakers.

Research supports the fact that [poverty can have a significant effect on access to healthcare](#) and that [the poor pay more for healthcare](#). [Low-income people are most at risk of contracting COVID-19](#), and therefore are more likely to incur healthcare costs from complications due to the virus. In order to truly understand the connection between healthcare and economic standing, states may choose to use All Payer Claims Databases (APCD) which provide insights into every claim paid by

an insurer when mandated by the state. Reviewing data on healthcare costs can lead to analysis of the effect of healthcare or lack thereof on reliance on other state programs; for example, seeking to understand whether high healthcare costs in certain neighborhoods are linked to strains on unemployment, SNAP, TANF, or other benefits systems in that same place. State agencies tasked with understanding insurance trends tend to only use all payer claims data internally and successful examples of cross-departmental analysis of this valuable information are currently lacking.

### COMPLEXITY: MODERATE



If individual level data is required:

- Requires sharing of protected data across agencies.
- Likely requires a data sharing agreement with APCD
- May require complicated matching and deduplication
- Likely requires geocoding records, assigning geographic data, and joining to GIS

Alternatively, if summary data is sufficient:

- Requires first geocoding records, assigning geographic data, and joining to GIS
- Requires suppression of small counts for HIPAA compliance
- Requires matching and integration of data where records may not share standard unique identifiers

PROGRAMS OR DATA SOURCES	CDO ROLE
All Payer Claims Databases SNAP, TANF, Benefits Unemployment Enrollment	Convene stakeholders and develop an appropriate scope and level of access to data necessary (individual records vs. aggregate)  Support or coordinate geocoding data (potentially using GIS team) and other necessary mapping support  Support technological needs for data sharing, integration, mapping where it adds value  CDOs can provide Expert Review certification for release of aggregate data under HIPAA

## *B2. Combine eligibility assessments across benefits*

Data on eligibility for benefits should be used to improve program operations to increase the state's ability to administer services.

With unemployment at historic levels, a large number of individuals are eligible for safety net benefits programs such as SNAP, TANF, Medicaid, CHIP, and WIC. The basic eligibility requirements associated with these programs measure common characteristics such as income and family size. These benefits are not only essential to help people survive, but help people and businesses build a foundation of economic stability. Many states have [combined applications](#) for benefits such as SNAP and TANF or developed [Express Lane Eligibility](#) across Medicaid and CHIP, but work remains to ensure state residents are maximizing the benefits they are eligible for. [Fifteen states use ELE to efficiently administer SNAP and Medicaid benefits](#) to those eligible for other state programs. Combining eligibility for all benefits programs across states is not a trivial undertaking and will require time and

investment. In lieu of developing new streamlined benefits applications, states can leverage data from existing programs to identify individuals or cohorts of individuals, who may be eligible for benefits but are not currently enrolled. States can use this data for more targeted outreach to individuals or areas.

*COMPLEXITY: MODERATE*



- Requires sharing of protected data across agencies through MOUs or data sharing agreements
- Data must be shared and integrated on a timely basis at regular intervals
- Requires matching data across systems where records may not share standard unique identifiers including deduplication
- Data must be useful to government employees conducting outreach activities

PROGRAMS OR DATA SOURCES	CDO ROLE
Medicaid SNAP, TANF, Benefits UI Wages UI Claims	Engage partner agencies and stakeholders in properly scoping the objectives and frequency of intervals for data exchanges.  Identify which data sources and elements (fields) from each source are necessary to support the objective  Identify technological resources or needs to facilitate the sharing and matching data  Support development of any necessary data sharing agreements  Identify end user needs  Scope and advise on mechanisms to provide integrated data sets and to end users and practitioners through dashboards or reports

### B3. Develop family-level views of benefits and service enrollment

Data on family-level views of benefits and service enrollment should be used to **inform policy and spending, improve program operations, and improve integrated data systems** to enhance the state's ability to administer services.

As moratoriums on foreclosures and evictions sunset, along with additional unemployment compensations, states will likely experience increased demand for services and benefits. State benefits systems and support programs are often scattered across agencies and focused on the individual receiving the benefits or the service. Outside of SNAP and TANF, families may be receiving other benefits or services such as housing or childcare subsidies or engaged with the child welfare system amongst others. By integrating data across these programs, with an emphasis on creating family level identifiers, states can better understand the breadth of services families receive and improve the coordination around the delivery of services and better understand outcomes. Such an effort could also be used to identify services that families may be eligible for but are not enrolled in.

#### COMPLEXITY: HIGH



- Requires sharing of sensitive and protected data across multiple agencies by MOU or data sharing agreement
- Data must be shared and integrated on a timely basis at regular intervals
- Requires matching data across multiple systems where records may not share standard unique identifiers
- Requires establishing or determining relationships between records to establish a family view. Some eligibility systems, or benefit systems may identify family members or household members, while others may only have individual level relationships
- Requires delivery of data or information to case workers or those involved in service delivery

PROGRAMS OR DATA SOURCES	CDO ROLE
Medicaid, CHIP SNAP, TANF, WIC, Benefits UI Wages UI Claims Housing programs Child welfare programs	Identify technological resources or needs to facilitate the sharing and matching data  Support development of any necessary data sharing agreements  Identify end user needs  Scope and advise on mechanisms to provide integrated data sets and to end users and practitioners through dashboards or reports

#### *B4. Track mental and behavioral health needs and services*

Data on mental and behavioral health services should be used to inform policy and spending and to produce mapping and visualizations of mental health services and pharmacy use.

Mental and behavioral health are essential foundations for long-term economic well-being. Mental health has been linked to ongoing conversations about battling the opioid epidemic and ending gun violence. Ten governors referenced mental and behavioral health or battling opioid addiction as focuses in their state of the state addresses for 2020. Health insurance claims data can show pharmacy use and geographic availability of mental health services, whereas data sources currently in use [tend to only capture opioid abuse through the lens of law enforcement](#). Understanding how pharmacies distribute medications is key to fighting opioid over prescription. Rural areas and certain urban areas have an extremely low concentration of mental health professionals. Intimate partner violence and child abuse have [increased under COVID-19](#), in part due to physical confinement in homes where mistreatment and violence were already a problem. Policymakers can use available health data to improve their understanding of how mental and behavioral health needs are met.



COMPLEXITY: MODERATE



If individual level data is required:

- Requires sharing of protected data across agencies.
- Likely requires MOU or data sharing agreement with APCD
- Requires suppression of small counts for HIPAA compliance
- Likely requires geocoding records, assigning geographic data, and joining to GIS
- Requires work with subject matter professionals to pull the correct service codes for pharmacy claims.

Alternatively, if summary data is sufficient:

- Requires first geocoding records, assigning geographic data, and joining to GIS
- Data may be able to be aggregated by the agency in control of the APCD, avoiding the need for data sharing agreements

PROGRAMS OR DATA SOURCES	CDO ROLE
All Payer Claims Databases Neighborhood GIS Data Arrests and Calls for Service	Engage partner agencies and stakeholders in properly scoping the objectives and frequency of intervals for data exchanges.  Identify which data sources and elements from each source support the objective  Facilitate data-sharing agreements  Create mapping resources and make the accessible  Communicate mental health care gaps to policymakers

## B5. Improve systems for tracking and responding to unemployment

Data on unemployment processes and payments should be used to **inform the public** about disbursements and wait times and **improve program operations**.

Unemployment systems in particular are extremely burdened under COVID-19, and will continue to be burdened until the U.S. returns to full employment levels, [as soon as 2022 and as late as 2025](#). Many unemployment programs track operational data like the number of days to process an application or disburse payment. While many protocols are suspended under a state of emergency, states will have to continue to expedite these systems once federal subsidy programs expire and additional pressure is put on state systems. States should prioritize maximum responsiveness and transparency in this time to secure trust in public benefit systems. Data on unemployment numbers will be important for businesses' strategic planning as well as government planning to anticipate the burden on adjacent benefits systems. Residents would benefit from seeing public information about the average wait time for benefits and the amount that has been distributed from the state through unemployment programs.

### COMPLEXITY: LOW



- Unlikely to require an MOU or data sharing agreement
- Requires making existing data open and accessible
- This data should be internal to one agency and should only require light analysis
- In later stages, may involve joining data across other benefits systems by unique identifier

PROGRAMS OR DATA SOURCES	CDO ROLE
Unemployment Enrollment Unemployment Operations	Pull data from workforce agency Help adapt data collection processes to generate meaningful insights Publish data for accountability Publicly track stress on unemployment system (Advanced) Compare across other benefit enrollments

## C. Neighborhood Well-being

States are responsible for managing a number of criss-crossing funding streams that are often passed down to regional and local governments for program implementation. In some cases, states can wield their power to enable more coordination around pressing issues across regions and places. Data that pertains to local level issues may be challenging to piece together as it is often dispersed or may not be reported consistently to state regulators. However, there are use cases where the value-add of coordinating and collecting local data would deeply bolster states' abilities to effectively respond to economic needs.

States also possess data that is unavailable to regional and local governments, but would be useful. State data can help better understand neighborhood demographics and community needs. Data such as SNAP enrollment, unemployment, business registration, and Medicaid claims can give communities better insights in the nature of issues they are facing. For states, parsing data by small-area geographies such as census blocks or neighborhoods can allow them to better understand issues affecting particular communities in need and allow them to target interventions and investments to those areas.

COVID-19 has illuminated long-standing inequities across neighborhoods, stemming from differing access to food, healthcare, education, jobs, and other fundamentals. Local businesses that lift up underserved communities and provide opportunities for entrepreneurs are also most at-risk during the crisis due to the significant costs required to stay open through lulls in clientele and various stages of reopening. This sensitivity also applies to rural communities which also struggle with lack of access to essential services, and stand to suffer from downturns in local industries or supply chains. States can help neighborhoods ride out the crisis by focusing on the following areas to support their regional and local governments.

## C1. Track available support for struggling small businesses

Data on local businesses should be used to **inform policy and spending** and **inform operations** of agencies tasked with engaging small businesses or delivering workforce support.

As states began closing down their economies to combat the spread of COVID-19, many small businesses were forced to close their doors or layoff employees. Several states quickly stood up small business assistance programs prior to passage of the CARES Act. While the Paycheck Protection Program sought to prevent layoffs and keep businesses afloat during this time, [many of the smallest businesses were unaware that federal support existed](#). Moving forward, states can leverage the data they already have to ensure business assistance equitably targets the areas and neighborhoods in most need of support. Further, as the impacts of the pandemic will shape our economy, new businesses may open to meet new demand. States can streamline the process for starting a business and reduce the administrative burden through improved data integration during the application and permitting process.

### COMPLEXITY: MODERATE



- Some data such as business registration is considered public but can be difficult to access
- Requires data on businesses from multiple agencies to be integrated to have a full view of a business (number of employees, type of business, location, etc.)
- Likely requires MOUs or data sharing agreements to obtain certain data
- Requires geocoding/mapping business locations
- Only requires regularly updated point-in-time analysis

PROGRAMS OR DATA SOURCES	CDO ROLE
Business registration	Identify challenges faced by small businesses applying for support
UI wages	Analyze business data for highest need areas
Revenue taxes	Convene stakeholders to prioritize highest need businesses
Other business licensing systems	Adapt data collection processes to streamline benefit applications

*C2. Improve local-level broadband data reporting*

**Data on broadband infrastructure should be used to inform policy and collect new data through collaboration with regional and local governments.**

The rapid shift to both remote work and remote learning has highlighted the inequities in access to high-speed internet in both rural areas where infrastructure is lacking and in urban areas where access may be unattainable for lower income communities. The pandemic-related impacts to employment and education due to lack of access to high-speed internet are yet to be fully understood however the [digital divide exists and impacts at least 25 million Americans](#). The data currently available identifying broadband service is limited in its utility to accurately understand how many Americans are actually able to access the internet at broadband speeds. Using more detailed data on internet speeds, estimates peg the [number of people who lack high-speed internet at 163 million](#). States still face significant barriers to gaining complete data on broadband access points and speeds. States should use a balance of incentives and penalties to compel ISPs to report complete and granular information on broadband access, as Minnesota does by barring ISPs from contesting grant awards or contracts without reporting complete infrastructure data. Access to high-speed internet will be critical in both rural and urban communities to access employment, education, and healthcare.

COMPLEXITY: MODERATE/HIGH



- FCC 477 data is often not sufficiently high quality for detailed household-level analysis
- States may need to explore alternate data sources to obtain detailed data for their area
- May require additional data collection efforts coordinated across local and regional governments, including surveys

PROGRAMS OR DATA SOURCES	CDO ROLE
FCC 477 data	Develop or support plans to collect survey data
School district surveys	
DOT fiber data	Support or facilitate GIS mapping to identify statewide digital deserts
<a href="#">Wigle.net</a>	Identify and leverage existing public-private partnerships for digital inclusion at the state and local levels
<a href="#">Microsoft</a>	Empower community organizations to build grassroots broadband networks

C3. Target relief for growing homelessness and evictions

Housing, homelessness, and evictions data should be used to **inform the public** about housing issues and **inform policy and spending** for relief programs.

As people face mounting economic hardship, housing will also become increasingly unaffordable for many. Cities face mounting threats of evictions and rises in homelessness. Long-term, policymakers will have to meaningfully support affordable housing policy to help people in vulnerable situations find stability over time. States, which can legislate rental assistance or eviction moratoriums, can analyze available data to understand how housing stress is affecting the most economically

vulnerable. Evictions data is notoriously difficult to get, requiring courts to independently publish open data at the county level. States may work with county-level data owners to collect evictions data that can provide an unseen view into statewide housing instability. CDOs may also find housing data by following federal funding streams and tracking the affordability of housing in cities and in rural areas, many of which also deal with a lack of quality affordable housing. CDOs should be at the center of efforts to inform policymakers about the most pressing needs in housing policy.

*COMPLEXITY: HIGH*



- Eviction data may not be aggregated across court systems in many states
- Requires executive support to gain data access for homelessness and evictions across HMIS and courts
- Requires data to be made accessible in regular timely intervals
- Requires housing subject matter expertise

PROGRAMS OR DATA SOURCES	CDO ROLE
HUD	Publish data on statewide counts of homelessness and other relevant indicators
HMDA	
Evictions	Collect statewide data on housing affordability and evictions
Homelessness PIT	Analyze statewide trends in housing and the effects on intercity population shifts
HMIS	

*C4. Map access to sustainable, healthy food sources*

**Data on food access should be used for mapping and visualizations and to inform policy and spending on food relief.**

In the midst of the pandemic, and particularly in the event that states need to return to lockdown during future waves of the virus, governments must have rapid



response plans to provide food to people with limited income or mobility. Food pantries have been shouldering a majority of this burden, though most states do not have comprehensive mapping of food deserts in urban and rural areas. Food insecurity and food sourcing are directly linked. Providing subsidies for local food sourcing can help ensure that supply chains are not disrupted in the event of another future economic downturn. Now that schools are also moving to remote classes, many low-income children are without access to two meals a day provided by free/reduced lunch programs. While much of this need is covered by P-EBT, pandemic EBT programs still have significant challenges distributing funds to people not already enrolled in SNAP benefits.

COMPLEXITY: HIGH



- States have struggled identifying students eligible for P-EBT beyond SNAP and free/reduced lunch enrollment
- Requires integrating data across multiple programs to identify food access locations
- Likely requires geocoding benefits recipients to Census blocks or other geographic units
- Requires aggregating benefits data and suppressing small values
- Requires a high degree of coordination across food and other assistance programs

PROGRAMS OR DATA SOURCES	CDO ROLE
SNAP, P-EBT <a href="#">SNAP authorized retailers</a>	Convene and coordinate stakeholders and community organizations for food relief
WIC vendors	Support aggregating data to census or other geographic units
Grocery Store Locations	Provide open data sets on food access points
Neighborhood Data	Support or coordinate with GIS team for mapping
USDA ERS Food Desert Maps	

C5. Streamline local and regional social service referrals

**Data on social services should be used to improve program operations and inform the public about available local services.**

Social services at the regional level will face the same strain as benefits at the state level. In many cases, states can ease the data-sharing barriers that keep case managers from sharing with each other, in part by building data-sharing into programs like the [2-1-1 information and referral system](#) which direct residents to essential resources in most regions. Homelessness Management Information Systems (HMIS) are also federally mandated programs that track important information about homelessness as the issue is expected to increase due to higher evictions. Building interoperability into 2-1-1 programs and other state-managed social service programs can help case managers and service providers access more relevant information about where needs and services are in their community. It can also help reduce inefficiencies that likely cost the state millions in lost or unused services. Open 2-1-1 and social service data can also be made public so clients can find services more easily when they need them and open source tools can be built to improve searchability. So far, regional 2-1-1s have led the charge to reform the way in which they [share information and collectively govern service data](#), but states would make a significant impact by enabling data-sharing across regional providers.

COMPLEXITY: MODERATE



- Social service data, particularly around homelessness, can contain sensitive individual-level information that should not necessarily be shared across providers
- Data on service availability is non-sensitive and openly available
- Interoperability is the biggest challenge among service providers
- 2-1-1 systems are prone to capture by proprietary vendors or independent administrators

PROGRAMS OR DATA SOURCES	CDO ROLE
2-1-1 Calls for Service Human Service Data Standard (HSDS) compatible data HMIS Health Information Exchange	Convene regional 2-1-1 administrators to discuss open data processes Support open social services data policy priorities Implement HSDS data standards in state-level data systems Establish governance processes for state-to-regional human service data-sharing

## D. Budget Reallocation

As state governments face budget shortfalls due to drops in revenues and outsized expenditures for emergency response, data officers should be prepared to answer instrumental questions about government operations. While performance management and budgets are often linked for the purpose of cutting programs that “don’t work,” CDOs should support budget analysis and performance management that leads to an intentional use of data to also identify which programs need deeper investment. States may want to map federal funding streams to ensure that departments are working together to use available dollars.

State government funds allocated through the recent CARES Act will give state executives hefty decisions to make about where to spend and where to save. Data officers should be prepared to make a strong, data-driven case for which programs are costing the state more than they are worth and which programs are struggling due to a need for deeper investment. States will need to make big-ticket investments or significant cutbacks in policy areas that weren’t previously a focus. Identifying remote-ready communities can help set a statewide agenda for broadband connectivity and digital inclusion, and prepare residents to receive medical care virtually. Divesting from ineffective criminal justice programs can help free up funds for other pressing needs. State budgeting will need to go hand-in-hand with careful management of incoming federal funding streams. Solutions in this policy area may be best suited to CDOs who either already perform some type of budget or policy analysis within the scope of their role, or who partner closely with department-level researchers who can lead budget and policy analysis with CDOs playing a supporting role.

## D1. Identify remote-ready communities

Data on digital needs should be used for **mapping and visualizations** and **informing policy and spending** on digital inclusion programs.

Communities with low digital access now present challenges both for adults working remotely and children attending school through distance learning. In order to invest in programs with a focus on reaching communities with low digital access and low access to jobs, state officials need to understand where investments toward digital inclusion currently are, and which programs will meet the needs of workers and students in various communities. Minnesota and Wisconsin both have [“telecommuter-ready” certifications](#) by neighborhood to help identify zones with strong connectivity. CDOs can help policymakers conduct analysis on the number of workers and students in various regions and allocate digital inclusion funding accordingly. This may rely in part on collecting data on broadband infrastructure as previously mentioned, but can also provide broader overlays of digital needs across communities. States may choose to reinvest away from already-connected neighborhoods toward building or improving infrastructure in neighborhoods with low digital connectivity.

### COMPLEXITY: MODERATE



- May require MOUs or data sharing agreements if individual agencies are not capable of geocoding/mapping records
- Requires geocoding, aggregating, and mapping data by Census block or neighborhood level
- Requires suppression of small values

PROGRAMS OR DATA SOURCES	CDO ROLE
Census data UI Wage data (aggregated by census block/group/tract) Business registration Broadband infrastructure	Collect and advocate for improvements to data reporting on broadband access  Match and process data to support geographic neighborhood-level analysis of internet access  Produce maps and visualizations for policymakers, or work with policy analysts to develop appropriate maps and visualizations

*D2. Evaluate performance and costs of youth detention*

Data on costs for youth detention and corrections facilities can inform policy and spending to reinvest funds away from youth detention into preventative measures.

As states face serious budget shortfalls in the coming years, CDOs supporting research initiatives to analyze return on investment should consider how data reporting and performance management can fit into existing frameworks like those provided by the [Justice Reinvestment Initiative](#). States participating in the initiative learn replicable strategies to divert people away from youth prisons or adult prisons through adjustments in criminal justice systems, resulting in cost-savings for the state. Prisons and detention centers present a particularly high COVID-risk and many states coordinated clemency initiatives to release inmates to depopulate prisons. Evidence shows that youth engaged with the criminal justice system face significantly [more difficult outcomes later in life](#). Youth detention centers [fail to rehabilitate those young people who emerge](#). Divesting from youth detention ensures that more youth will find access to services they need rather than getting pulled into the [correctional system which is so costly to maintain](#). Eighteen states have already begun work with the Justice Reinvestment Initiative to [divert funds from youth and adult correctional detainment and reinvest them into communities](#). CDOs in these states may begin working with justice agencies to support plans to match the costs of justice programs to expected social and economic outcomes.

COMPLEXITY: HIGH



- Few if any individual-level data or MOUs should be required to make systematic decisions about depopulation and diverting youth away from detention centers
- States with existing justice reinvestment initiatives are likely stronger candidates for enhanced data use within corrections agencies
- Requires working with data-ready subject matter experts within justice agencies
- Requires matching budget data to outcomes data and establishing new data workflows for performance management

PROGRAMS OR DATA SOURCES	CDO ROLE
<p>Youth &amp; Adult Corrections Data</p> <p>State Budget Data</p> <p>Court Data and Outcomes</p>	<p>Work with justice-related agencies and court systems to identify neighborhoods with high engagement in youth correctional systems and opportunities for data to support diversion programs</p> <p>Support or advise policymakers to combine data on program costs and outcomes</p> <p>Collate data on outcomes from youth correctional programs and counts of served individuals by individual and neighborhood level</p> <p>Establish metrics to demonstrate that the criminal justice system is effectively diverting youth and adults from detainment</p> <p>Collaborate with budget and performance departments to ensure that justice reinvestment efforts have sustainable access to data flows on service uptake and outcomes</p>

### *D3. Increase telehealth access and uptake*

Data on telehealth access and uptake should be used to **inform policy and spending** on investment decisions or create **mapping and visualizations** of access to healthcare.

Medical providers are transitioning to telehealth to deal with the inaccessibility of hospitals and clinics under the strain of COVID-19. Investment in telehealth programs for medical providers may help sustain and increase access to healthcare for those without access to a primary care provider. CDOs can help policymakers understand Medicaid coverage of telehealth by using data from all payer claims databases and Medicaid claims to better identify gaps that exist in telehealth access. Additionally, states can identify both populations and providers that rely heavily on in-person visits to understand hotspots that may also help to inform broadband connectivity efforts. Some states are beginning to consider folding broadband subsidies into other benefit programs like SNAP, TANF, or Medicaid, based on the fact that essential health and social benefits are available online, increasingly so under COVID-19. Telehealth will become increasingly important as those who are unemployed or otherwise economically struggling are unable to afford healthcare or may lack access to transportation for in-person visits. By expanding enrollment in telehealth and providing relevant subsidies, states may expand the ability of low-income people to access essential services.



COMPLEXITY: MODERATE



- If working with summary level mapping, data may be able to be aggregated by the agency in control of the APCD and Medicaid claims to avoid hard-to-get data-sharing agreements
- If necessary, to work with raw claims data users will need a researchers' data agreement with agencies, and must work with subject matter professionals to pull the correct service codes for claims
- May require collecting geographic data on broadband access by place to determine telehealth accessibility
- May require additional effort to geocode records in order to aggregate data to useful geographies such as census blocks, and will require review to ensure suppression of small counts

PROGRAMS OR DATA SOURCES	CDO ROLE
All Payer Claims Databases Medicaid Claims Medicaid providers directory	Coordinate access to data necessary (aggregate vs individual level) Develop or support development of any data sharing agreements necessary Support or coordinate with GIS teams for geocoding and mapping needs Advise on analytical combination of digital access and telehealth uptake data Help publish data into interactive maps or visualizations

#### *D4. Track CARES funding and other disaster relief aid*

Data on CARES Act and other disaster relief funding should be used to **inform policy and spending** to streamline program support to local governments.

The CARES Act established the \$150 billion Coronavirus Relief Fund that provides states and other units of government with funding to aid in various expenses directly related to COVID-19. The CARES Act requires that the payments from the Coronavirus Relief Fund only be used to cover expenses that 1) are necessary expenditures incurred due to the public health emergency with respect to the Coronavirus Disease 2019 (COVID-19); 2) were not accounted for in the budget most recently approved as of March 27, 2020 (the date of enactment of the CARES Act) for the State or government; and 3) were incurred during the period that begins on March 1, 2020, and ends on December 30, 2020. States have fairly broad discretion in how they allocate these funds, provided they are directly related to COVID-19. Beyond the initial need to procure personal protective equipment, tests, ventilators, or items related to the public health response; states are or may be leveraging these funds to provide laptops for remote learning, or housing for homeless populations. States can leverage many of their existing data sources to better target allocation of CARES Act funds to support the communities and neighborhoods disproportionately impacted. For instance, states can ensure that testing sites are located in historically disadvantaged neighborhoods such as those with high concentrations of public housing. Similarly, as a vaccine becomes available, states can target similar areas to prioritize distribution.

Additionally, the CARES Act contains certain reporting and transparency provisions for states. Beyond the Coronavirus Relief Fund, there are additional funding streams such as the Pandemic EBT, and Pandemic Unemployment Assistance, along with other discrete grant programs to provide additional support for states and their residents. State can not only track and publicly report on COVID-19 related spending, but also the additional federal funding opportunities.

COMPLEXITY: MODERATE



- CDOs will need to encourage rigorous reporting from all departments and agencies receiving CARES Act funding to collect information on funding uses
- Budget and funding data is non-sensitive and should be published openly once collected

PROGRAMS OR DATA SOURCES	CDO ROLE
Budget Data CARES Act Allocations Relief Program Reporting	Coordinate the distribution of relief funds alongside policy leaders Establish simple reporting practices for allocation and use of relief funds Collect, analyze, and visualize data on CARES Act and relief funds Publish funding data openly for public use

# Conclusion

Leveraging government data effectively at the state level will be critical to ensuring that states' residents are able to endure the COVID-19 pandemic and thrive in the years to come. This report outlines the most feasible and tractable use cases for state data in four areas that are currently central to economic recovery. However, we may still not understand the full extent to which COVID-19 will affect the economy, and the workers holding it together.

A number of deeper use cases emerge to streamline service delivery at the state level as the demands on state resources continue to increase. Innovations in user-centered design, open data, ethical data management, and open contracting can help build better long-term infrastructure for states to leverage technology and data for resiliency. In Appendix B, we've included a list of existing data systems or program data warehouses that need maintenance and reforms to best serve data users inside and outside of government. States with long-term interest in investing in better data and technology use should empower CDOs to make deep, infrastructural investments to make these systems more effective and usable.

As COVID-19 continues and the landscape continues to shift, governors must imbue CDOs with sufficient knowledge and authority to coordinate effective responses to unforeseeable needs. In writing this report, we discovered that multiple data departments within state governments are facing serious funding cutbacks. CDOs leading these teams are tasked both with providing essential statewide infrastructure and managing shrinking teams and budgets. Data must be treated as critical infrastructure for emergency response in order to be prepared with insights when immediate needs arise. While CDOs can begin by building statewide capacity for good data management within departments, state leaders need to adopt more robust data-driven agendas to enable this cultural shift to occur.

State leaders working with CDOs can follow the roadmap outlined in this report to improve foundational services for residents on the path toward economic recovery. By using data to inform policy and improve public understanding of pathways out of poverty, states can efficiently and effectively lead the way to improve economic mobility for their residents.

# Appendix A: Defining Economic Mobility

Based on definitions developed by the [US Partnership for Mobility from Poverty](#):

**Create access to good jobs.** Today’s workers are much less likely to work for one long-term employer, belong to unions, or have jobs that provide good wages, benefits, and protections. To restore the American dream, everyone willing to work hard and learn new skills must have a pathway to a good job. The Partnership identified two underemphasized approaches that could make a real difference: improve pathways to good jobs, including education and skills training; and transform jobs with low wages, erratic work hours, and/or limited or no benefits into good ones.

**Ensure zip code is not destiny.** Many low-income families live in communities suffering from disinvestment and distress. The Partnership identified four approaches that respond to the challenge: increase access to opportunity communities through efforts that combine revitalization, affordable housing, and moves to higher-opportunity areas; reform the justice system to better address the needs of people living in communities of concentrated poverty; improve access to the financial services necessary to pursue vital economic opportunities; and increase availability of safe, stable, affordable housing in high-opportunity communities for families with young children.

**Provide support that empowers.** Too often we deliver services in ways that stigmatize and isolate, depriving people of autonomy and responsibility. Brain scientists are also learning how pernicious the stress of deprivation and the challenge of coping with competing demands can be over different life stages. Our service delivery systems should take “whole person” and “whole family” approaches, recognizing the strengths and needs people have during different phases of human development by investing in solutions for young children, adolescents, and adults—including expansion of income support that reinforces work and autonomy (e.g., earned income tax credit and the child tax credit).

**Change the narrative.** Narratives are the stories we tell ourselves and others to help us make sense of the world around us and to help us understand cause and effect. The Partnership identified three prominent and damaging narratives about poverty and mobility: people in poverty have no one to blame but themselves; people in poverty are helpless victims; and the rare, spectacular “rags-to-riches” stories prove that the American dream is still achievable. We determined three elements critical to effectively recasting narratives around poverty and mobility: humanize people living in poverty, expose the structural forces that shape poverty, and partner with allies who can help reshape the narrative. ””

# Appendix B: Key Data Systems

While state CDOs can pull on a diverse range of datasets to address the use cases in this report, many states are already working with common integrated data systems or collections of program-specific datasets. Throughout our research, we identified potential uses for these datasets as well as idiosyncratic risks and barriers for CDOs to keep in mind.

## Health insurance claims & prices

### All Payer Claims Databases (APCDs)

- Can be used to analyze opioid abuse, mental health services, or place-based social determinants of health, for example:
  - Pharmacy use and spending
  - Low-value services (going to the ER for a sprain)
  - Substance use analysis
  - Utilization of healthcare
  - Services that are major cost drivers
- Can be compared to certain Medicaid fields, but data is often separate
- Often requires data-sharing agreements for researchers inside government to use
- Needs to be analyzed by people with data *and* subject matter knowledge
- Is sensitive because of private employer-negotiated insurance rates
- May be comparable to hospital data intake data, providing a different angle of the same experience

*Ex. Colorado's Center for Improving Value in Healthcare publishes an [annual report](#) using APCD data*

*Ex. The New Hampshire Insurance Department [publishes reports](#) using this data*

## Case management systems

### Medicaid, SNAP, other safety net benefits or social services

- Case worker input must be included in data management for these systems
- Most common data challenge is finding those who are eligible but not enrolled in services
- Case-level data on social benefits is very rarely tied to economic outcomes
- Most case management providers use a case-based model or a task-based model; both have advantages and disadvantages but affect how data is collected or stored
- Let case workers choose their workflow and embed usability into their data systems

- Data systems are sometimes built just for compliance (for example, asking whether a process took less or more than 14 days, but not collecting how long it actually took)
- Policy needs to require social service agencies to publish service availability data as near to real time as possible
- Service providers should prioritize using Open Referral's HSDS standard

*Ex. Arizona is connecting corrections data to social services to find eligibility*

*Ex. Wisconsin using tax filing data to pre-screen for benefits eligibility*

*Ex. Mississippi has single eligibility form for cross-department WIOA allocation*

## Educational outcomes

### State Longitudinal Data Systems (SLDSs)

- Compliance of higher educational institutions varies with political climate
- Contents of SLDSs are fairly straight forward and consistent but are foundational for policymaking
- SLDSs require consistent and comprehensive funding over time
- SLDSs work well under workforce agency who are often the nexus of cross-agency collaboration
- Linking educational data to unemployment data is allowed under FERPA
- Career and technical education data should always be merged into SLDSs if possible
- SLDSs have challenges matching to UI wage data to track workforce outcomes
- Most states are able to run SLDS data through DMV IDs first and then match to UI wage
- Some SLDS programs require for individual overseers of supplemental education programs (like work-study or other placements) to report data verbally or manually to school data staff; there may be an opportunity for centralized reporting forms
- States should be publishing lists of ESSA-approved, high-quality certifications publicly

*Ex. KYSTAT has a help desk for responding to SLDS questions that works well and brings the value of data to policymakers*

*Ex. Texas uses a set of statewide codes to identify students in CTE programs from the SLDS, which works better than schools manually reporting them as separate programs*

## Early childhood data

### Early Childhood Integrated Data Systems (ECIDS)

- Early childhood integrated data and early childhood program data serve different purposes; integrated data is to track long-term outcomes, program data is to inform service providers



- Most ECIDSs have unique IDs for children, but need better family IDs
- Most ECIDSs aggregate data on children to a cohort level (for users' views)
- Early childhood information doesn't need to be integrated at the individual level
- The childcare workforce is suffering under COVID-19 affecting the availability of services
- Program providers and teachers shouldn't necessarily be using individual level data at their disposal because predictive elements are not always evidence-based
- Analysis of early childhood data works best when looking at neighborhood characteristics

*Ex. Cleveland LDS study [matched early childhood outcomes to housing characteristics](#) at a family level and showed lower educational outcomes for kids growing up in houses with lead.*

## Adult & juvenile corrections

- Juvenile justice reform has broad political goodwill and feasibility to reduce state costs while improving outcomes for youth
- Many states haven't connected youth correctional data to benefits eligibility or uptake
- Most high-value data already exists in justice agencies, so less data-sharing required
- Neighborhood level analysis of correctional data is super impactful here to target community support and doesn't require tracking individual kids
- The Justice Reinvestment Initiative has a DIY element for data experts and policymakers that asks framing questions to support evidence-based policymaking

*Ex. Utah's juvenile justice data system tracks youth through the system and sends automatic updates to families.*

*Ex. Georgia has documented and been through the data-driven justice reinvestment process and [found significant cost savings](#).*

## Wages & employment

### Unemployment Insurance Wage filings

- Data is state-by-state so doesn't track individuals who live in one state but whose employers file UI Wage data in another; location of employment is unclear
- Can be matched with DMV data to verify location of employment/residence
- Doesn't capture gig economy workers and self-employed people
- Core source of understanding where people end up after schooling or training
- Could be used for neighborhood-level analysis of highest need during COVID-19

- Quarterly UI Wage filing is the maximum level of granularity for wage information
- Month-to-month is as close to real-time as wage data could get, and would be ideal

*Ex. Many states are matching through DMV data to get verification on identity and location*