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Chapter 12: Producing a National Incidence Rate—The Viability and Challenges Related to Using Administrative Data

Lead Authors:
Denise Herz, California State University, Los Angeles
Robert Goerge, Chapin Hall at the University of Chicago
Dennis Culhane & TC Burnett, Actionable Intelligence for Social Policy

A primary goal of this study was to propose a methodology for estimating a nationally representative incidence rate of dual system youth. Collectively, our research team reviewed the various options and concluded that producing a nationally representative incidence rate of dual system youth required the use of linked administrative data. Westat conducted a landscape assessment of child welfare and juvenile justice data using extant information available to assess the viability of accessing the data needed for such a study (see Chapter 8). These findings, in turn, informed the methodology recommended in Chapter 9. These processes were informative, underscoring the need to access administrative data while highlighting issues related to doing so. In this chapter, we provide a brief summary of the proposed design and key issues related to using child welfare and juvenile justice data at the national level.

Availability of Data: Key Findings from the Landscape Assessment of Child Welfare and Juvenile Justice Data

Perhaps the most significant hurdle to collecting data on dual system youth is the absence of integrated practices and data systems in the majority of jurisdictions across the United States. The data landscape assessment completed as part of this study confirmed this reality. Whereas child welfare data is often captured at the state level because of federal reporting requirements, juvenile justice data is typically captured at the jurisdiction (e.g., county) level and in less consistent ways (see Chapter 8 for a more detailed discussion of the landscape assessment and its findings). Such variability creates inconsistency in the availability of electronic data and in the way measures are collected.

A starting point for accessing consistent juvenile justice data might be the delinquency court and dependency court data submitted to the National Council on Juvenile Justice on an annual basis; yet, in the Dependency Court Data Archive Feasibility Report (Sickmund, Deal, Hockenberry, & Furdella, 2015), NCJJ noted that these data sources are too limited for sufficient identification of dual system youth because of structural and consistency issues. This refocuses attention on state and jurisdiction data from both systems. The Juvenile Justice Geography, Policy, Practice & Statistics (JJGPS) bulletin, Systems Integration: Child Welfare and Juvenile Justice, (Fromknecht, 2014) found that only seven states integrate child welfare and juvenile justice data; eight have separate divisions but exist under the same umbrella agency, eleven are in separate state-level centralized agencies, and the vast majority (25) operate as decentralized units within a state. Twenty-seven of these states engage in data sharing (in some capacity) across the child welfare and juvenile justice systems. Thus, there is some, albeit limited, basis to access administrative data from both systems to produce a national incidence estimate, but a deeper investigation into which data are available across systems and the quality of that data is necessary.

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Proposed Methodology for Pursuing a Nationally Representative Incidence Rate of Dual System Youth

The availability of child welfare and juvenile justice data was a critical piece of information for the design portion of this study. Using this information, our Westat partners estimated models to inform the sampling design for a national study. The final recommended approach was the census + sample hybrid design. This design assumed that statewide administrative data for both systems would be available from 20 states, which would cover 35-45% of all cases in the United States. Once verified, a sample of counties or jurisdictions would be sampled from the remaining states that cannot produce statewide data. Collectively, the two samples would represent all child welfare and juvenile justice cases across the nation—matching the data would then produce an estimate of youth who touched both of the systems (i.e., dual system youth). Another key assumption is that identified states and jurisdictions would be able to produce these data and would allow access to them. To verify this assumption, we recommended a two-phased approach. First, conduct a deeper data landscape analysis nationwide to verify and identify states/jurisdictions capable of providing the data, and second, implement the census + sample hybrid design using the results of that analysis.

In theory, this methodological approach seems straightforward and relatively easy to implement; however, in the course of analyzing the administrative data in the study sites, important issues around data access, the importance of jurisdictional differences, and data quality arose.

Key Issues for Using Child Welfare and Juvenile Justice Data at the National Level

Data access. In this study, research teams from three jurisdictions—Cook County, IL; New York City; and Cuyahoga County, OH—with well-established integrated data systems (IDS) collaborated to develop a data analysis plan to assess the feasibility of using linked administrative data to produce a national estimate of dual system youth. While the three study sites were able to draw upon long-established agreements allowing them to receive, link, and analyze data across multiple governmental departments, jurisdictions without any experience in linking data across these domains would experience significant challenges engaging in this work, (Petrila Cohn, Pritchett, Stiles, Stodden, Vagle, Humowiecki, & Rozario, 2017).

Even when the data are available, permission to use it is not always straightforward. For sites without a data governance process in place, the ad hoc nature of data sharing requests—even between two state agencies—is fraught with barriers. For instance, cross-sector stakeholders have to agree to participate, legal agreements must be established, and the technical process for transferring and matching data has to be determined before the actual data analysis work can begin. At the very minimum, these jurisdictions would need to establish support from stakeholders across two departments to develop and execute a memorandum of understanding and create a project-specific data sharing plan allowing them to match data across child welfare and juvenile justice departments. Absent an integrated data system that streamlines these procedures, it can take up to a year to finalize the agreements that allow data access, linkage, and analysis (The Commonwealth of Massachusetts, 2016).

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As more and more states and counties work to adopt data governance practices and the federal government continues to advocate for the use of linked administrative data, the friction associated with data access should be further reduced. Indeed, over the last several years, federal agencies have issued guidance on the storage and use of administrative data for evaluation purposes, which has helped to reduce legal confusion at the state- and county-level around their ability to utilize administrative data for evaluation or audits related to federal- or state-supported education programs (Petrila et al., 2017; Aron-Dine, 2015; Berk, Schur, & Feldman, 2007; Czajka & Beyler, 2016). The federal government could provide incentives to states through audit, evaluation, and performance reporting requirements either by allocating additional funds, requiring cross-systems linkage, or both. Such federal efforts have been effective in the past (Federal Register, 2011).

Quality of the data. Since administrative data are not collected with research purposes in mind, they are not typically in a sufficient state for research. Evaluators often have to convert raw files into research-ready files and must be prepared to address issues of data quality, measurement, reliability and validity, and coding (in)consistencies. In order to do so, it is recommended that they first have a solid understanding of the underlying data structure of any given data source, including both its provenance and metadata (Wulczyn, Clinch, Coulton, Keller, Moore, Muschkin, Nicklin, LeBoeuf, & Barghaus, 2017).

The provenance and metadata should first be reviewed to determine any system challenges within an administrative data source. This review should be done to determine relevance, missing field names or descriptions, combined fields, multiple structural directions, and divided or duplicated values. Once this is complete, the administrative data can be reviewed for completeness, value validity, default values, consistency, uniqueness, and duplication. However, this list is not exhaustive—depending on the data in hand, additional review may be required in order to adequately determine data quality (Wulczyn et al., 2017). Just because these steps were successfully completed does not mean the data is in sufficient quality for research. For instance, the LAD study sites determined that they would not be able to use arrest data to select the study cohort for this project because it was not available across all sites. Instead, each jurisdiction utilized court petition data to construct a cohort of youth who received their first juvenile court petition.

The importance of considering jurisdictional differences in policies and practices. At the outset of the project, the group devoted a significant amount of dialogue to determine which measures should be addressed by all three sites. Since a major focus of this study was to assess the feasibility of using linked administrative data to measure the national incidence of dual contact and dual involvement in child welfare and juvenile justice systems, the LAD Subcommittee first needed to define "system involvement." The sites were ultimately not able to apply the same definitions of system involvement because juvenile justice and child welfare practices vary widely across each jurisdiction. Instead, they chose to define system involvement relative to the standard operations within their respective jurisdictions in order to best benefit both current analyses and future work in this area (see Chapter 5 and Chapter 8 for more discussion of site specific issues).

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Future projects utilizing data from more jurisdictions to develop a national estimate of dual system youth would need to allocate a sufficient amount of time and resources to ensure accurate measurement. For instance, key terms must be both clearly defined and applied across all study sites. The same is true for population definitions and measures. Equally important, information on data availability and quality—specifically with regard to juvenile justice data—must be gathered from the participating jurisdiction(s) in order to understand the true viability of the data for this purpose. For instance, within each jurisdiction questions such as what constitutes out-of-home placement, juvenile justice involvement, etc. must be determined. In some cases, qualifications may be required to indicate non-comparability that could not be corrected. Such issues are key as they can have very significant impact on the comparability of results.

Issues related to data reliability and validity are common when using administrative data. Therefore, it is imperative to ensure that measures are actually capturing what they are intended to capture. Site to site variation in interpretation could also exist, and we found examples of this in conducting this feasibility study. In conducting this study, for example, we also encountered age limits for the juvenile court and "sealed" records, both of which can affect the reliability and validity of the data in cross-site comparisons.

The LAD Subcommittee spent a significant portion of the first project year discussing and testing how to best code the pathways and subpopulations of dual system youth to ensure that incidence rates and subpopulations were defined both accurately and consistently across all three sites. Since child welfare and juvenile justice reporting requirements differ across jurisdictions, several coding decisions were made early on to maintain a high level of consistency. Though time consuming, the coding work was critical to the study integrity and cross-site comparability.

Conclusion

Over the past several years, the use of linking existing administrative data across government agencies to generate actionable intelligence in a timely and accurate manner has become more common. This particularly holds true for exploring the incident rate of dual system youth in the United States. Survey-based research methods for this purpose do not work because the majority of individual agencies have no information on the number of youth who also have contact with other agencies. Additionally, experts in social science research highly recommend linking administrative data across multiple systems in order to obtain a more robust, holistic understanding of how policies and practices affect the individuals they are intended to serve (Wulczyn et al., 2017; Groves & Harris-Kojetin, 2017; Groves & Peytchera, 2008). In addition to its growing popularity among social science researchers, the use of linked administrative data has also experienced an uptick in recognition at the federal level. The White House Office of Management and Budget (OMB) issued a series of memos that encouraged linking administrative data across governmental departments in order to drive evidence-based policymaking (The White House Office of Management and Budget, 2009, 2010, 2012, 2013, 2014a, 2014b, 2017, 2018).

While linked administrative data can provide a faster, more cost-efficient route to obtaining data-driven actionable information, care must be taken to ensure the data elements utilized are of good quality. In the course of providing services, the government collects a multitude of data across

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several domains (e.g., housing, juvenile justice, health, child welfare, etc.). However, only a small number of data elements within these administrative datasets meet data quality standards for research and evaluation purposes. Therefore, great care and caution must be taken when linking administrative data to ensure that they are both scientifically reliable and valid (Culhane et al., 2017; Wulczyn et al., 2017).

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