

## Research Article

Thomas Byrne\*, Stephen Metraux, Manuel Moreno, Dennis P. Culhane, Halil Toros, Max Stevens

# Los Angeles County's Enterprise Linkages Project: An Example of the Use of Integrated Data Systems in Making Data-Driven Policy and Program Decisions

**Abstract:** Governments at all levels are tasked with administering public programs that serve large numbers of people. The use of integrated data systems (IDS), which can be used to link administrative records from multiple public agencies into one database, offer a unique mechanism for providing the type of comprehensive information that is important for understanding the complex needs of vulnerable populations and for making data-based policy and program decisions that translate into more effective and efficient policies. In this paper, we draw on recent efforts to restructure Los Angeles County's General Relief (GR) Program – a cash assistance program for indigent adults – as an example of how the effective use of IDS can play a crucial role in generating evidence that can guide important program and policy decisions.

**Keywords:** administrative data; Los Angeles County; social policy

---

**\*Corresponding author: Thomas Byrne**, School of Social Policy and Practice, University of Pennsylvania, e-mail: byrnet@sp2.upenn.edu

**Stephen Metraux**, Mayes College of Healthcare Business and Policy, University of the Sciences, e-mail: s.metrau@uscience.edu

**Manuel Moreno**, Research and Evaluation Services, Chief Executive Office, Los Angeles County, e-mail: mmoreno@ceo.lacounty.gov

**Dennis P. Culhane**, School of Social Policy and Practice, University of Pennsylvania, e-mail: culhane@sp2.upenn.edu

**Halil Toros**, Research and Evaluation Services, Chief Executive Office, Los Angeles County, e-mail: htoros@ceo.lacounty.gov

**Max Stevens**, Research and Evaluation Services, Chief Executive Office, Los Angeles County, e-mail: mstevens@ceo.lacounty.gov

---

# 1 Introduction

Governments at all levels are tasked with administering public programs that serve large numbers of people. The ability of policymakers and program managers to make optimal policy and program decisions depends in no small part on the quality of relevant information at their disposal. However, as recipients of services from one public agency may use additional public services, policymakers often require information from across multiple public systems so as to coordinate the delivery of effective and efficient public programs and services. This is especially true when considering how to best meet the often complex and overlapping social, economic and health needs of vulnerable populations. The use of integrated data systems (IDS), which can be used to link administrative records from multiple public agencies into one database, offers a unique mechanism for providing the type of comprehensive information that is important for understanding complicated problems or the complex needs of vulnerable populations. In turn, this information can be used in making data-based policy and program decisions that translate into more effective and efficient policies.

In this paper, we draw on recent efforts to restructure Los Angeles County's General Relief (GR) Program – a cash assistance program for indigent adults – as an example of how the effective use of IDS can play a crucial role in generating evidence that can guide important program and policy decisions. After providing some background on the concept of IDS, the rationale for the usage of such systems and an example of how IDS have been used to inform homeless assistance policy, we then shift our attention to examining the Enterprise Linkages Project (formerly known as the Adult Linkages Project), an exemplary IDS that tracks public health, mental health, criminal justice and other social services used by GR Program participants and participants in other public programs in Los Angeles County. We then briefly summarize important findings from two studies that used Enterprise Linkages Project data and subsequently proceed to examine the key role that these studies played in shaping proposals to restructure the GR Program. In doing so, we arrive at some conclusions about factors that are necessary for helping IDS achieve their potential as tools for making data-driven, evidence-based policy and program decisions.

## 2 Background on Integrated Data Systems (IDS)

Administrative data are the computerized records of service users and services used that are compiled cumulatively on a day-to-day basis by service providers.

These records are usually collected in order to meet local, state and Federal program reporting requirements, or for billing and other operational purposes. The recent expansion of automated record-keeping systems has made such data more ubiquitous and better-suited for evaluating programs or policies and conducting research on use of public services. Using administrative data is far less expensive than primary data collection, especially because the cost of collecting data is often part of the day-to-day operating budgets of agencies or programs. Therefore, studies using administrative data can use much larger samples, in a more timely fashion, at a much smaller cost, than would be possible through primary data collection. Given the availability of many years of continuously collected data often available in administrative databases, longitudinal studies can be completed in a matter of months as opposed to over the course of several years. As time-sensitive policy and program decisions often cannot wait for the results of a multi-year study or evaluation, administrative data represents a powerful tool for providing quick, quality information to decision-makers.

Administrative data can be used to identify the prevalence and patterns of service utilization within an agency or program, factors associated with differential program and service use, and costs that correspond to patterns of service utilization. All of these factors make analysis of administrative data from a single public agency or program a powerful tool, and integrating records from multiple agencies or programs offers an even greater capacity for engaging in evidence-based decision-making. Merging administrative records from several sources allows for the identification and tracking of individuals and populations across different service systems. This can provide a better understanding of: the patterns by which people use multiple systems (either concurrently or sequentially); the relationships between different systems; and unforeseen or previously unknown relationships or phenomena.

Given all this, the integration of administrative data has a broad range of potential applications for conducting research to answer pressing policy or programmatic questions (Culhane and Metraux 1997; Duran et al. 2005; Culhane et al. 2010). The role of administrative data in policy toward homelessness is a good example of this. Findings from this body of research, which would have been exceedingly difficult to conduct in the absence of the availability of administrative data from one or more public systems, have been used to guide important homelessness policy and program decisions. In what follows, we provide a brief overview of studies in this area.

Using administrative data from New York City and Philadelphia shelters, Culhane et al. (1994) showed how the homeless population was considerably larger when assessed over the course of a year as opposed to the predominant

point-in-time prevalence counts that were then being conducted. Culhane and his colleagues also used this data to demonstrate a typology for homeless individuals (Kuhn and Culhane 1998), based on their use of shelter. A key finding from this study was the identification of a “chronic” sub-group of shelter users, who while only comprising about 10% of all individuals who use shelter, use about half of all shelter resources, because of their long-term use of shelters. A similar analysis was conducted using administrative data from family shelters (Culhane et al. 2007) and findings from these studies were used to propose different approaches for rehousing the resulting homeless subgroups (Culhane and Metraux 2008).

Additional research has made use of administrative data to examine the use of non-shelter health, behavioral health, criminal justice and social services by persons experiencing homelessness. Studies in this vein have shown that relative to their housed counterparts, homeless persons make more extensive and more costly use of inpatient hospitalizations and emergency department (ED) services, as well as of behavioral health services (Salit et al. 1998; Kuno et al. 2000; Kushel et al. 2001, 2002). In addition, by linking administrative data from public shelter systems with data from criminal justice systems, it has been shown that nearly one-quarter of individuals in a public shelter at a given point in time had experienced an episode of incarceration in the prior 2 years (Metraux and Culhane 2006).

As a further extension of this research, shelter data have been merged with data from multiple public service systems to show the cost-effectiveness of providing services-enriched housing for the most difficult to serve and disabled homeless persons (Culhane et al. 2002). Additional studies have taken a similar approach in using administrative data from several public health, behavioral health and criminal justice systems to show that providing housing interventions to high-need sub-groups of the homeless population can result in substantial reductions in the utilization of such services subsequent to an individual’s placement in housing (Rosenheck et al. 2003; Martinez and Burt 2006; Mondello et al. 2007; Larimer et al. 2009; Sadowski et al. 2009; McLaughlin 2011). In using administrative data to inform novel insights and practical approaches, this research has been influential in guiding homelessness policy over the previous decade (Kosa 2009; McGray 2004).

Nonetheless, one disadvantage of these studies is their *ad hoc* nature, meaning that these studies were usually the product of administrative data that were obtained for specific projects. Even with a sole data source, this requires repeating a cumbersome acquisition process outlining the specific terms of access, including the scope of the research, protocols for maintaining record

confidentiality, and data storage and transfer procedures. Each new project entails setting up new arrangements, leading to a process that is prone to bureaucratic and legal delays that add considerable time to such research, especially when multiple data systems are involved. Such delay threatens to mitigate one of the primary advantages of administrative data, its potential to provide close to real-time results on large populations in an expedient manner.

To streamline data acquisition, a number of state and local governments as well as universities have created IDS – data repositories that combine administrative records from multiple agencies or programs. An IDS does not eliminate data acquisition issues; indeed, there are a number of legal, ethical, technical, economic and administrative challenges in creating an IDS, which are discussed more fully by Culhane et al. (2010). What is different, however, is that in an IDS, data from multiple sources are stored in a single data repository that is available to interested and eligible parties under a streamlined and routinized acquisition process. Furthermore, data can be merged and de-identified before it leaves the IDS, which removes potentially thorny confidentiality issues. The data can then be routinely updated by the IDS from data contributed by the participating services systems without having to go through a reacquisition process.

Three brief examples of IDS illustrate the capabilities of such a setup. The first is South Carolina, which merges data from several state systems including Medicaid, the Department of Mental Health, the Department of Education and the Department of Social Services. Using these data, the state identified 340,000 children having “special healthcare needs,” a figure that far exceeded the 10,000 children that had previously been identified by using datasets from single-service systems (Bailey 2003). Chapin Hall at the University of Chicago is a research and policy center focusing on children, youth and family issues. Their Center for State Foster Care and Adoption Data maintains a database of child welfare records from 15 states. With these data, state welfare agencies can generate standard reports, and researchers can perform more complex analyses. In an example of the latter, George et al. (2010) examined the services use, and corresponding costs, for multiple systems users among Illinois families across the foster care, mental health, substance abuse treatment, and juvenile and adult correction systems. Finally, the State of Michigan maintains the Statewide Homeless Assistance Data online Warehouse (SHADoW), a collection of data from the state's homeless management information systems and supplemented with data from human services, housing, health and criminal justice systems. The object of this data warehouse is to facilitate longitudinal and cost-based studies related to homelessness in Michigan (Ritter and Davis 2007).

### 3 The Enterprise Linkages Project: an Exemplary IDS

In 2007, nine Los Angeles County Departments entered into an agreement to implement the Adult Linkages Project (ALP). The initial aim of the ALP was to provide comprehensive information on the multi-system service utilization patterns of persons participating in the GR Program, a county-funded cash assistance program administered by the Department of Public Social Services (DPSS) that serves more than 100,000 indigent adults who are ineligible for federal or state-level assistance program. Recently, the ALP has been expanded to include information not only about GR participants, but about participants in other public programs as well. As a reflection of this broadening scope of emphasis and the accompanying expansion in its range of possible applications, the ALP is now known as the Enterprise Linkages Project (ELP).

The ELP tracks the service utilization of GR and other public program participants across a spectrum of publicly funded health, mental health, social and corrections services. The ELP also tracks the costs associated with such service utilization, allowing for the formulation of a complete picture of county resources expended upon participants in the GR and other public programs. The tracking of costs of public service use also creates the potential for conducting cost–benefit analysis using ELP data. In addition to records maintained by DPSS, the ELP integrates records from the Departments of Community and Senior Services (CSS), Health Services (DHS), Mental Health (DMH), Public Health (DPH), Children and Family Services (DCFS), as well as the Probation and Sheriff Departments. Given its capacity to track the service use of GR recipients and other persons across different county agencies, analysis of ELP data can help foster collaboration between county agencies, and identify redundancies in services, resulting in the potential for cost avoidance and cost savings.

More specifically, information from the ELP can help produce both a more accurate characterization of the comprehensive needs of GR and other public program participants as well as a more complete understanding of the extent and cost of their interactions with multiple public service systems. This is particularly important in the case of GR participants, who, because of their complex health, social and economic needs, are frequent users of county health, mental health and additional services and constitute some of the most vulnerable residents of Los Angeles County. Indeed, roughly 60% of the GR caseload is homeless, underscoring the vulnerability and frequently substantial service needs of GR participants.

ELP data not only provide information about service utilization patterns, but also include individual-level demographic and other relevant characteristics about recipients of public services. For GR participants, ELP data provide an indicator of disability status, which is important given the fairly high rate of disability among GR participants. Moreover, the longitudinal structure of the ELP allows for the tracking and comparison over time of different cohorts of participants in public program (e.g. long-term vs. first-time GR participants). This is quite useful as it allows for the identification of important characteristics or factors that may be associated with certain patterns of utilization of county services. In turn, these factors or characteristics may serve as the basis for the targeting of special interventions towards certain groups of GR recipients or other participants in public programs.

Given the collaborative efforts of a large number of county departments to share data and the correspondingly wide range of public service systems that it includes, the ELP is an IDS initiative that creates opportunities for conducting a broad swath of investigations that might be used to guide important policy and program decisions. In the remainder of this paper, we describe how some of the initial studies using ELP data took full advantage of its wide-ranging capabilities and were subsequently put to near immediate use to inform an ongoing process to restructure GR program practices and policies.

## 4 Key ELP Studies

GR participants frequently experience homelessness, have a disability or face other challenges that require housing and additional forms of assistance beyond the monthly GR cash grant of \$221 to help them transition from GR towards greater self-sufficiency. In recognition of this, efforts to restructure the GR program into a form of assistance that leads to better outcomes for GR participants have been developing since the late 1990s. Over the course of roughly a decade, a number of important supplemental programs that provide substance abuse treatment, employment and vocational assistance, and housing services to certain GR participants were gradually introduced alongside the basic monthly GR cash grant.

The ongoing efforts to restructure the GR program also included making use of the ELP to help develop data-driven enhancements to the GR program and identify areas where increased collaboration between county agencies might lead to more efficient and effective delivery of services to GR participants. Therefore the County's Research and Evaluation Services (RES), a unit within the Service Integration Branch (SIB) of the Chief Executive Office (CEO), commissioned one study (Metraux and Culhane 2009) that used ELP data to examine the extent and

cost of service utilization of GR participants and specific sub-groups of GR across a number of county departments. A second study conducted by RES staff evaluated the GR Housing Subsidy and Case Management Pilot Project (Moreno et al. 2009). The aim of the evaluation was to determine whether providing homeless GR participants with subsidized housing and supportive services would lead to positive outcomes for GR participants and cost savings for the county.

As these studies both involved tracking the utilization of multiple county services by large numbers of GR participants over the course of several years, they would have proved exceedingly difficult if not impossible to conduct without the ELP. Moreover, although they analyzed years of administrative data, these studies were completed over the course of several months. Thus, the ELP was used to answer important questions and provide valuable information to inform the restructuring of the GR program in a timely manner that otherwise would have been unavailable. In turn, the results of these two studies were ultimately of great importance in shaping plans to comprehensively restructure the GR program that were developed in late 2009 and early 2010. Before examining in detail the role that these studies have played in the GR restructuring process, we briefly summarize their key findings below.

## **5 Using Adult Linkages Project Data for Determining Patterns and Costs of Services Use by General Relief Recipients in Los Angeles County**

Completed in July 2009 before the ALP became the ELP, the study entitled *Using Adult Linkages Project Data For Determining Patterns And Costs Of Services Use By General Relief Recipients In Los Angeles County* (hereafter “The ALP Study”), sought to improve understanding of how GR recipients interact with a spectrum of services provided by a number of county departments. The ALP Study was a longitudinal study that examined cost and extent of county service use by roughly 13,000 GR participants over a 3-year period from 2005 until 2007. The ALP Study focused on four main areas: examining the characteristics of GR participants; analyzing the cost and extent of service use by GR participants within individual county departments; analyzing the cost and extent of service use by GR participants across multiple county departments; and analyzing the cost and extent of the multi-department service use of certain sub-group of GR participants.



First, in terms of characteristics, the study found high rates of disability among GR participants with 30–40% of GR participants being identified through the GR application process as having a disability. In addition, one out of every six GR enrollees had a treatment history for a mental illness in one or more county departments, and most of those involved diagnoses that could qualify as “severe mental disorders.” Moreover, over half of GR participants were homeless at some point while receiving GR, and about 15% of persons remained on GR cumulatively for more than 1 year. About two-thirds of this extended user group had a disability, and about one in six had been treated for a mental illness. All of these findings underscore the often complex needs facing GR participants that present obstacles to their ability in transitioning towards greater self-sufficiency.

Second, the ALP Study examined the extent and cost of services use by GR participants within seven individual county departments: DPSS, DHS, DMH, the Alcohol and Drug Program Administration (ADPA), which is housed within DPH, Sheriff, Probation and DCFS. GR participants made substantial use of county services, with about three-quarters of GR recipients using services in at least one county department in addition to receiving GR from DPSS. The highest rates of utilization were in health services provided by DHS and in Sheriff Department jail stays, with 40–50% of GR participants using each type of service. The cost of DHS health services utilization totaled \$70.6 million over a 3-year period from 2005 until 2007, with more than two-thirds of that amount accounted for by inpatient hospitalizations. Jail stays for GR participants included in the ELP cost the county a combined \$131.3 million over a 3-year period, which was more than six times the cost of the monthly GR grants paid by DPSS. Overall, health services and jail stays accounted for about 83% of the overall cost of county services used over a 3-year period by GR recipients included in the ELP.

Third, to provide a more complete picture of the county service utilization patterns of GR recipients, the ALP Study also examined the extent of services use across multiple county departments. Roughly 40% of GR participants received services in two or more county departments in addition to receiving their GR grant from DPSS, while nearly one-quarter used three or more county departments in addition to DPSS. Receipt of services from DHS and the Sheriff Department represented the most frequently used pattern of two or more departments, with 20–30% of GR participants using this combination. Also of interest was the finding that more than one-quarter of both cohorts had some type of inpatient stay through DHS or ADPA over a 3-year period.

Finally, the ALP Study examined the service use of seven sub-populations of GR recipients whose multi-system service use costs were substantially higher than the average for the GR population as a whole. These groups included individuals with a history of expensive service use in the year prior to their initial

certification or re-certification for receipt of GR, individuals with a disability, those with a mental illness, the long-term homeless, frequent jail users, and employable GR participants. Among these groups, the service costs for persons with a disability were more than double that of the average GR participant.

In summary, the study offered a fairly comprehensive portrait of the characteristics, service use and overall financial impact of GR recipients. Moreover, the county's Research and Evaluation Services (RES) is the only agency in the state of California to have undertaken such a comprehensive data-driven study, and in so doing the findings from the ALP Study serve as a prime example of the type of project that is possible to execute with an IDS, but would not be feasible otherwise. In particular, the study made it clear that the cost of providing services to GR recipients extends beyond county outlays on monthly GR grants. In fact, findings indicated that for every dollar spent by DPSS on GR grants, other county departments spent \$4.34 on GR recipients.

## **6 The General Relief Housing Subsidy and Case Management Pilot Project: an Evaluation of Participant Outcomes and Cost Savings**

Started in 2006, the GR Housing Subsidy and Case Management Pilot Project (hereafter "The Pilot Project") provided a \$300 per month housing subsidy and case management services to 900 homeless GR participants at any given time. The evaluation of the Pilot Project (hereafter "The Pilot Evaluation") was completed in September 2009 by researchers in the county's RES and relies in part on data from the ELP. The aim of the evaluation was to determine whether providing homeless GR participants with subsidized housing and supportive services would lead to positive outcomes including reduced homelessness, increased employment and increased receipt of Supplemental Security Income (SSI). In addition, The Pilot Evaluation sought to examine whether the Pilot Project generated cost savings resulting from reductions in the utilization of county services by Pilot Project participants subsequent to housing placement.

A number of positive outcomes were found for Pilot Project participants. More than two-thirds of Pilot Project participants remained at the same address during their time in the pilot and, after exiting the pilot, participants experienced a dramatic drop in the amount of time spent homeless. Moreover, participation in the Pilot Project led to increased employment, as employable Pilot Project participants were almost twice as likely to obtain employment in comparison to a

control group made up of GR recipients who did not participate in the Pilot Project. Disabled Pilot Project participants filed applications for SSI at a much higher rate than their counterparts in the non-participant control group (85% vs. 32%) and the SSI approval rate among Pilot Project participants who had filed and received a decision on an SSI application, was twice that of the control group. Finally, the Pilot Evaluation examined the extent and cost of health, mental health, and criminal justice service utilization in multiple county agencies to determine whether participation in the Pilot Project was associated with reductions in service utilization. The Pilot Evaluation estimated that, as a result of lower levels of service use following housing placement, the county would save a net \$11 million over 2 years by housing 900 GR recipients through the pilot program. What is more, the evaluation projected net cost savings of about \$19 million over a 2-year period resulting from a hypothetical targeting of the pilot project to 900 disabled GR recipients, an estimate that was considered conservative.

## 7 The Impact of ELP Studies on GR Program Restructuring

While the county had been making gradual enhancements to the GR program since the late 1990s, the importance of undertaking comprehensive efforts to restructure the GR program was given new urgency amidst the economic recession that began in late 2007. Between June 2007 and June 2009, the unemployment rate in Los Angeles County jumped from about 5% to nearly 12%. During the same time period, as many out-of-work persons sought unemployment benefits and other forms of public assistance, the GR caseload grew by nearly 40% from 60,447 to 82,524 persons (Moreno et al. 2009), and by July of 2011 had risen to roughly 107,000. An expansion in the GR caseload size came at a substantial cost to the county as the net cost of the GR program grew from \$133 million during the 2006–2007 fiscal year to \$222 million for the 2009–2010 fiscal year, a 67% increase (County of Los Angeles 2010). The increase in funding obligations for the GR program was accompanied by mounting fiscal challenges facing the state and county. Gaps in the state budget resulted in a \$150 million loss in revenue for Los Angeles County for the 2008–2009 fiscal year and a \$465.3 million loss for the 2009–2010 fiscal year. As declining home values were a large driver of the recession, county property tax revenues also declined significantly from their pre-recession levels. In addition, falling consumer demand for goods and services resulted in a drop in revenue from a number of key sales taxes, including the Proposition 172 sales tax and the Realignment sales tax. All told, the county

faced budget shortfalls of \$300 million for the 2009–2010 fiscal year and roughly \$220 million for the 2011–2012 fiscal year, creating uncertainty around the continued viability and funding of the increasingly expensive GR program as well as other county programs.

The rapid uptick in the size and cost of the GR program challenged county officials to look for ways to close a sizeable budget gap. In April 2009, the Los Angeles County Board of Supervisors asked the County CEO and DPSS to create a GR program that would better meet the need of GR recipients and make more efficient use of county resources. The GR Restructuring Workgroup that was established to develop a comprehensive plan for GR reform was composed of representatives from 11 county departments and 10 community stakeholder groups. The workgroup benefitted from its ability to draw on the important findings of both the ALP Study and the Pilot Evaluation in developing a set of 27 recommendations for changes to the GR program that were delivered to the County Board of Supervisors in September 2009 and an additional set of 15 recommendations presented in January 2010. The 42 recommendations were designed to reduce the GR caseload over time by focusing services on housing assistance, Supplemental Security Income (SSI) advocacy, and employment preparation.

As a whole, the comprehensive restructuring of the GR program outlined by GR Restructuring Workgroup's recommendations serves as a terrific example of making data-based decisions about how to improve programs and policies. Indeed, a number of key recommendations were drawn directly from the findings of the ALP Study and the Pilot Evaluation. Results from these studies were cited as clear evidence that, if implemented, the proposed changes to the GR program would generate cost savings for the county and result in better outcomes for GR participants. Four areas of proposed reform are particularly worth exploring in order to highlight the impact of the ALP Study and the Pilot Evaluation.

First, the GR Restructuring Workgroup recommended expanding the GR Housing Subsidy and Case Management Pilot Project, to provide housing subsidies to 10,000 homeless GR recipients by 2014. This recommendation was consistent with findings from the Pilot Evaluation, which found reduced homelessness, increased employment, increased receipt of SSI benefits and significant cost savings for the county associated with the Pilot Project. What is more, the GR Restructuring Workgroup recommended that housing subsidies be targeted to disabled homeless GR participants who could apply for SSI. This was a strategy suggested by the Pilot Evaluation, which projected even greater cost savings in targeting disabled GR participants, as the county would receive federal Interim Assistance Reimbursement (IAR) for the full cost of housing subsidies provided to successful SSI applicants for the time during which their SSI application is pending.

Second, a number of key recommendations outlined how the county should engage in more comprehensive and systematic efforts to help disabled GR participants transition from GR to SSI. Several of these recommendations were aimed at increasing both the application and approval rate for SSI among GR participants. Some dealt with helping establish eligibility for SSI (e.g. assistance in obtaining health records to document a disability) while others focused on helping GR participants navigate the application process itself. The stated goal was to increase the approval rate for SSI among disabled GR recipients from 40% in the 2008–2009 fiscal year to 70% in the 2012–2013 fiscal year. The decision to focus heavily on obtaining SSI benefits for eligible GR participants was influenced in part by the ALP Study's finding that a significant proportion of GR participants (30–40%) had disabilities and that disabled persons made use of county services at double the rate and cost of the average GR participant. Therefore, as the ALP Study suggested, assisting disabled GR participants in applying for SSI carried with it the potential to yield cost savings for the county. Not only would caseload sizes decrease as more disabled GR recipients transitioned onto SSI, but the county would save on health costs, as the medical expenses for SSI beneficiaries would be covered by Med-Cal, the state Medicaid program.

Third, the GR Restructuring Workgroup recommended that, within the limits of confidentiality requirements, the ELP data structure be used to examine the county service use history of GR participants with the aim of appropriately targeting services to match unique needs. This proposal drew on findings from the ALP Study that demonstrated a great deal of variation in the service utilization patterns of GR participants, suggesting a corresponding variation in the type and amount of services needed. In particular, the ALP Study examined the service utilization patterns of specific sub-groups of GR participants who made disproportionate use of county services. For example, the ALP Study was able to show that 10% of GR participants who made the most extensive use of county services were responsible for about 40% of the overall cost of services used by all GR participants. Such findings formed part of the basis for the GR Restructuring Workgroup's suggestion of targeting assistance to GR participants on the basis of their service utilization patterns. In doing so, the county might potentially generate substantial cost savings through increased employment for employable GR participants, higher levels of SSI approval for disabled GR recipients, and reductions in expensive acute care service utilization for GR participants who make the heaviest use of county services.

Finally, a number of recommendations made by the GR Restructuring Workgroup called for increased collaboration between county agencies in providing services to GR participants. The need for the development of a more integrated service delivery model for the GR program was made apparent by the ALP Study

and the Pilot Evaluation, which both detailed the often substantial, and sometimes redundant, utilization of services by GR participants across multiple county departments. Indeed, the ALP Study found that 40–50% of GR participants made use of services in two or more county departments and that 20–30% made tandem use of county health and criminal justice services. In providing clear evidence of the nature, extent and cost of multi-system service use by GR participants the ALP Study and the Pilot Evaluation provided a clear, data-based rationale for pursuing greater cooperation between agencies in meeting the needs of the GR population.

The recommendations for restructuring the GR program were designed not only with the intent of implementing programs tailored to the needs of sub-populations of GR participants and reducing the number of GR participants by helping them to transition to other more suitable forms of assistance such as SSI, but to create significant cost savings for the county as well. Results from the ALP Study and the Pilot Evaluation offer solid evidence that the prospects for realizing the projected savings are quite good. However, the GR Restructuring Workgroup did not intend for the implementation of its plan to be financed through savings generated by GR restructuring itself. Instead, the GR Restructuring Workgroup recommended that reform of the GR program be funded through the redirection of existing county funds in the GR budget, tapping into new federal funding sources such as the County Services Block Grant – Health Related, and through recouping the cost of providing subsidized housing to GR participants who are approved for SSI via the Interim Assistance Reimbursement. In addition, the GR Restructuring Workgroup outlined how to use a one-time infusion of \$7.2 million in county funds that had previously been set aside for the purpose of jumpstarting GR restructuring efforts.

In sum, the GR Restructuring Workgroup's recommendations highlight the potential of using IDS to provide quality information that can be used to make important decisions in addressing pressing problems. With the help of evidence from the ALP Study and the Pilot Evaluation, the GR Restructuring Workgroup was able to develop a comprehensive set of data-driven recommendations for creating a more effective GR program that would not require the commitment of new county resources.

In February 2010, the Los Angeles County Board of Supervisors approved the GR Restructuring Workgroup's recommendations and implementation plan for restructuring the GR program. As a result, the GR program, whose continued viability was threatened by a nearly unparalleled fiscal climate and potential cuts in social spending, was given new life and a new direction.

Since approval of the GR Restructuring Workgroup's recommendations, a number of recommendations have been implemented. For example, the GR

Housing Subsidy and Case Management Pilot Project has expanded beyond the pilot stage and is now known as the GR Housing Subsidy Program. In addition, drawing on one of the suggestions from the ALP Study, DPSS staff are currently collecting informed consent from GR participants which would allow information about their service utilization to be released to county workers. In turn, beginning in mid 2012, social workers at DPSS will be able to identify and target for special interventions those GR participants who use a disproportionate amount of public services.

As efforts to revise GR program policies and procedures continue to unfold and evolve, officials in Los Angeles County continue to make use of data to inform decisions. In doing so and by using data-driven decision making, the GR Program that emerges as a result of restructuring efforts will be one that, while still maintaining its crucial safety net function, will better meet the housing, health, income and employment needs of indigent adults while making more prudent and efficient use of public funds.

## 8 Conclusion

At the outset of this paper we argued that IDS represent a promising and powerful mechanism for fashioning data and evidence-based policy responses to complicated problems. The example of GR program reform in Los Angeles County is encouraging as it provides validity for this argument. However, the experience in Los Angeles also shows that the mere existence of the administrative and technological infrastructure necessary to support IDS is not enough to translate its potential promise as a policy tool into reality. If information from IDS is to be successful in shaping policy and program decisions, a few additional factors are necessary.

First, trained researchers need to be able to access IDS data and use it to answer important research questions that would be difficult or impossible to answer in a timely manner without IDS. Similarly, studies conducted using IDS must produce information in a timely manner that is useful to agency executives, program directors, policymakers and other stakeholders. It is here that the efforts of the County CEO and the RES unit in Los Angeles County were quite important in the GR restructuring process. The County CEO and RES staff formulated a conceptual framework that was a driving force in seeing the ELP come to fruition. Likewise, RES staff oversaw the implementation of the ELP as well as both the ALP Study and the Pilot Evaluation. These two studies made full use of the unique capacity of ELP data to answer questions that would have proven difficult

to answer otherwise. Moreover, findings from the ALP Study and the Pilot Evaluation were directly relevant to efforts to restructure the GR program. More specifically, both studies were geared towards better understanding the extent and cost of county services used by GR recipients and examining ways in which more effective services could be provided at a lower cost to the county. In turn, this type of information was of clear and immediate use to policymakers.

Second, it is important to clearly convey the results and implications of studies that are conducted using IDS. Even if IDS are used to produce timely, relevant and valuable information, such information is most likely to be translated into policy and program changes if it is presented in a fashion that clearly points to a particular course of action. In Los Angeles County, many of the recommendations for changes to the GR program made by the GR Restructuring Workgroup were clearly linked to findings from the ALP Study and the Pilot Evaluation. This was evident in the recommendation to dramatically expand the GR Housing Subsidy and Case Management Pilot Project. The results of the Pilot Evaluation demonstrated that such an expansion would lead to better outcomes for GR participants and substantial cost savings to the county, which provided a strong rationale for the recommended course of action.

Governments on all levels are often presented with complex problems that must be addressed in a time-sensitive manner. What is more, in the context of the fiscal challenges that many local and state governments currently face and are likely to continue to face in the near future, there is a need for data-driven decisions about how to make the most efficient use of public resources. Having access to the type of comprehensive information about a problem or issue that IDS can provide facilitates the process of making optimal program and policy decisions. In addition, complicated problems often require coordinated responses from multiple agencies or systems and data from IDS can be used to foster meaningful and effective collaboration. Although the costs and administrative challenges of creating an IDS can be significant, as the example from Los Angeles County demonstrates, local and state governments have much to gain by way of effective and efficient policies and programs in doing so.

## References

- Bailey, W. P.** (2003) Integrated State Data Systems. Retrieved 5/30, 2012, from <http://archive.ahrq.gov/data/safetynet/bailey.htm>.
- County of Los Angeles** (2010) County of Los Angeles 2010–2011 Proposed Budget: Charts. Retrieved 7/9, 2010, from [http://file.lacounty.gov/lac/cms1\\_144817.pdf](http://file.lacounty.gov/lac/cms1_144817.pdf).



- Culhane, D. P.** and **S. Metraux** (1997) "Where to from Here: A Policy Research Agenda Based on the Analysis of Administrative Data." In: (D. P. Culhane and S. P. Hornburg, eds.) *Understanding Homelessness: New Policy and Research Perspectives*. Washington, DC: Fannie Mae Foundation.
- Culhane, D. P.** and **S. Metraux** (2008) "Rearranging the Deckchairs or Reallocating the Lifeboats: Homelessness Assistance and its Alternatives," *Journal of the American Planning Association*, 74(1):111–121.
- Culhane, D. P.**, **E. DeJowski**, **J. Ibanez**, **E. Needham** and **I. Macchia** (1994) "Public Shelter Admission Rates in Philadelphia and New York City: The Implications of Turnover for Sheltered Population Counts," *Housing Policy Debate*, 5(2):107–140.
- Culhane, D. P.**, **S. Metraux** and **T. R. Hadley** (2002) "Public Service Reductions Associated with the Placement of Homeless People with Severe Mental Illness in Supportive Housing," *Housing Policy Debate*, 13(1):107–163.
- Culhane, D. P.**, **S. Metraux**, **J. M. Park**, **M. A. Schretzmen** and **J. Valente** (2007) "Testing a Typology of Family Homelessness Based on Patterns of Public Shelter Utilization in Four US Jurisdictions: Implications for Policy and Program Planning," *Housing Policy Debate*, 18(1):1–28.
- Culhane, D. P.**, **J. Fantuzzo**, **H. L. Rouse**, **V. Tam** and **J. Lukens** (2010) "Connecting the Dots: The Promise of Integrated Data Systems for Policy Analysis and Systems Reform," *Intelligence for Social Policy*, 1(3):1–22.
- Duran, F.**, **S. Wilson** and **D. Carroll** (2005) *Putting Administrative Data to Work: A Toolkit for State Agencies on Advancing Data Integration and Data Sharing Efforts to Support Sound Policy and Program Development*. Farmington, CT: Child Health and Development Institute of Connecticut.
- George, R. M.**, **C. Smithgall**, **R. Seshardi** and **P. Ballard** (2010) *Illinois Families and their Use of Multiple Service Systems*. Chicago, IL: Chapin Hall at the University of Chicago.
- Kosa, F.** (2009) *The Homemakers*. Miller-McCune. March-April. Available at: <http://www.miller-mccune.com/business-economics/the-homemakers-3843/>.
- Kuhn, R.** and **D. P. Culhane** (1998) "Applying Cluster Analysis to Test of a Typology of Homelessness: Results from the Analysis of Administrative Data," *American Journal of Community Psychology*, 17(1):23–43.
- Kuno, E.**, **A. B. Rothbard**, **J. Averyt** and **D. P. Culhane** (2000) "Homelessness Among Persons with Serious Mental Illness in an Enhanced Community-based Mental Health System," *Psychiatric Services*, 51:1012–1016.
- Kushel, M. B.**, **E. Vittinghoff** and **J. S. Haas** (2001) "Factors Associated with the Health Care Utilization of Homeless Persons," *Journal of the American Medical Association*, 285:200–206.
- Kushel, M. B.**, **S. Perry**, **D. Bangsberg**, **R. Clark**, and **A. R. Moss** (2002). "Emergency Department Use Among the Homeless and Marginally Housed: Results from a Community-based Study," *American Journal of Public Health*, 92(5): 778–784.
- Larimer, M. E.**, **D. K. Malone**, **M. D. Garner**, **D. C. Atkins**, **B. Burlingham**, **H. S. Lonczak**, **K. Tanzer** and **W. G. Hobson** (2009) "Health Care and Public Service Use and Costs Before and After Provision of Housing for Chronically Homeless Persons with Severe Alcohol Problems," *Journal of the American Medical Association*, 301:1349–1357.
- Martinez, T. E.**, and **M. R. Burt** (2006) "Impact of Permanent Supportive Housing on the Use of Acute Care Health Services by Homeless Adults," *Psychiatric Services*, 57(7):992–999.

- McGray, D.** (2004) *The Abolitionist*. The Atlantic Monthly. June. Available at: <http://www.theatlantic.com/magazine/archive/2004/06/the-abolitionist/2969/>.
- McLaughlin, T.** (2011) "Using Common Themes: Cost-Effectiveness of Permanent Supported Housing for People with Mental Illness," *Research on Social Work Practice*, 21(4):404–411.
- Metraux, S.** and D. P. Culhane (2006) "Recent Incarceration History Among a Sheltered Homeless Population," *Crime and Delinquency*, 52:504–517.
- Metraux, S.** and D. P. Culhane (2009) *Using Adult Linkages Project Data for Determining Patterns and Costs of Services Use by General Relief Recipients in Los Angeles County*. Los Angeles, CA: County of Los Angeles Chief Executive Office.
- Mondello, M., A. B. Gass, T. McLaughlin and N. Shore** (2007) *Cost of Homelessness: Cost Analysis of Supportive Housing*. Portland, ME: State of Maine.
- Moreno, M. H., H. Toros and M. Stevens** (2009) *The General Relief Housing Subsidy and Case Management Pilot Project: An Evaluation of Participant Outcomes and Cost Savings*. Los Angeles, CA: County of Los Angeles, Chief Executive Office, Service Integration Branch.
- Ritter, B.** and J. Davis (2007) *Shadow in Michigan*. Presentation at the State of Michigan Data Warehouse Users Conference. Lansing MI, November 6. Retrieved 5/30, 2012, available at: [http://www.michigan.gov/documents/bi/Davis\\_SHADoW\\_Data\\_Warehouse\\_FINAL\\_219328\\_7.ppt](http://www.michigan.gov/documents/bi/Davis_SHADoW_Data_Warehouse_FINAL_219328_7.ppt).
- Rosenheck, R., W. Kasprow, L. Frisman and W. Liu-Mares** (2003) "Cost-effectiveness of Supported Housing for Homeless Persons with Mental Illness," *Archives of General Psychiatry*, 60:940–951.
- Sadowski, L. S., R. A. Kee, T. J. VanderWeele and D. Buchanan** (2009) "Effect of a Housing and Case Management Program on Emergency Department Visits and Hospitalizations Among Chronically Ill Homeless Adults: A Randomized Trial," *Journal of American Medical Association*, 301:1771–1778.
- Salit, S. A., E. M. Kuhn, A. J. Hartz, J. M. Vu and A. L. Mosso** (1998) "Hospitalization Costs Associated with Homelessness in New York City," *The New England Journal of Medicine*, 338:1734–1740.