***Data Quality Report for the South Carolina Department of
Probation, Parole, and Pardon Services (SCDPPPS) Offender Services Report***

By Sarah Crawford, South Carolina Revenue and Fiscal Affairs Office (RFA)

Individual government agencies maintain data from administrative systems for the operations of the services and programs that they administer. These data systems are often kept siloed across agencies and in some instances even within agencies. The South Carolina Revenue and Fiscal Affairs Office (RFA) is a neutral government agency in the state of South Carolina that is a central setting that houses the data and enables the linkage of persons across multiple agencies and providers. The RFA developed a series of algorithms using various combinations of personal identifiers to create its own unique identifier, enabling statistical staff to "link across" multiple providers and settings. Through the data warehouse housed at RFA, clients of the South Carolina Department of Probation, Parole, and Pardon Services (SCDPPPS) were able to be linked to multiple entities to create a data set that could be queried to create aggregate analysis of the SCDPPPS clients.

For a complete picture of the data, an assessment of availability and quality was needed. Using the publication *Data Quality Assessment Tool for Administrative Data* (Iwig et al.)[1] as a guide, data dictionaries and the following data quality report were developed for the requested administrative data from the specified state agencies. In order to link the SCDPPPS data to the other state agency data available within the data warehouse, applications had to be completed, submitted, and approved by each entity. The agencies/providers of interest were the following: the South Carolina Data Oversight Council (SCDOC), South Carolina Department of Health and Human Services (SCDHHS), South Carolina Department of Mental Health (SCDMH), South Carolina Department of Social Services (SCDSS), South Carolina Department of Health and Environmental Control (SCDHEC), and South Carolina Department of Juvenile Justice (SCDJJ).

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[1] http://www.bls.gov/osmr/datatool.pdf

The RFA receives data from these entities through mandates or agreements with the agencies. It assisted SCDPPPS with the application process and obtaining approvals from the individual entities. Due to the sensitive nature of the data, it was determined that the best process would be for the RFA to link the data and provide only aggregated data tables back to SCDPPPS. Additional information on the data utilized in this study is provided within the accompanying data dictionary. The information provided is person specific, not just program or service specific. The identifiers allow us to assign a linker enabling us to link individuals across multiple data systems. Each of the data systems submitted to the RFA give us a snapshot of individuals served allowing us to piece together and create a more complete picture of their life.

Data on SCDPPPS clients, closed cases, and absconders were provided to RFA for linkage to specified entities. The SCDPPPS provided client level information on all SCDPPPS closures for state fiscal years 2012–2015 (July 1, 2011–June 30, 2015) and client level information on all individuals designated as 'absconder' as of December 2015. This information contained details on the client's offense, case, demographics, and personal identifiers to allow for linkage. Data were provided specifically for this project and extracted by SCDPPPS.

One of the larger aspects of the SCDPPPS clients' life that was of interest was in the area of health care. There was interest in knowing if the client was enrolled in Medicaid, what sort of hospital visits they had, and their utilization of mental health services. This information is protected by the Health Insurance Portability and Accountability Act (HIPAA). To protect the privacy and security of health information, it was decided to release only aggregate information on the SCDPPS clients. To insure that individuals could not be identified, categories with fewer than 10 individuals were masked in the aggregated data tables.

Information on hospital visits, both inpatient and emergency department utilization, is available in the Uniform Billing data housed at RFA. The RFA is mandated to receive information from all hospitals in the state of South Carolina on all patients served. This data is governed by the South Carolina Data Oversight Council (SCDOC) that oversees the collection and release of the hospital data housed in the RFA data warehouse. This information is available going back to calendar year 1995. Records for each discharge are submitted monthly from each hospital to the RFA. The files submitted contain patient identifiers, demographics, insurance information, diagnostic and procedure information, and service dates. For this project, the data of interest centered around the number of patients and total number of visits for an inpatient hospitalization or emergency department visit. For the SCDPPPS cohort, there was also an interest in the top 50 diagnoses for inpatient hospitalizations and emergency department visits.

From the South Carolina Department of Health and Human Services (SCDHHS), information about a person's enrollment in Medicaid could be determined. The RFA receives eligibility information monthly from SCDHHS about clients enrolled on Medicaid. A file containing identifiers, demographics, enrollment information, and details on the clients' qualifying categories for Medicaid are provided for each recipient of Medicaid. The time period of interest for the SCDPPPS linkage was for FY2012–2015, however data is available in the RFA data warehouse going back from calendar year 1996 to present.

To get information on the utilization of mental health services, the SCDPPPS clients were linked to South Carolina Department of Mental Health (SCDMH) Outpatient Services data. The RFA receives files monthly from the SCDMH; data going back from calendar year 1996 to present is available. Each month files are submitted to RFA providing information on the services SCDMH clients receive. There are multiple files submitted that can be linked on the person's SCDMH assigned client ID. The patient file submitted contains the identifiers and basic demographics on the client at the patient level. The service file encompasses the services the patients received at the service level. Information on diagnoses, services provided, dates, place served, insurance information, and disposition details are provided here. There was interest in knowing the number of SCDPPPS clients served through SCDMH, as well as details on the timing of the services, types of services, diagnoses, and dispositions.

The data of interest from the South Carolina Department of Social Services (SCDSS) that is housed at RFA contained information on the economic services SCDPPPS clients were enrolled in during the time period of interest (FY2011–2015). The RFA receives a file monthly from SCDSS and have information going back to calendar year 1996. The file provided contains a relational database with basic client information; including identifiers and demographics on the clients. There are case composition and benefit files that provide details on the economic services (TANF and/or SNAP) for which the client is qualified. These tables are linkable using the SCDSS Case Number. With these files, we are able to get information on the client's basic demographics (age, race, and sex) as well as details of the benefits they receive.

For the data from the South Carolina Department of Health and Environmental Control (SCDHEC) housed at RFA, the primary interest was to link SCDPPPS closures and absconders to the South Carolina Death Certificate data. The SCDHEC Death Certificate data provides information on the deaths that occur in the state of South Carolina. A file is submitted to RFA on an annual basis of the previous calendar years deaths in the state; data is available going back to calendar year 1995. Linking to this file enables SCDPPPS to determine the number of the absconders and closures (during the specified time period: FY2012–2015) that had a South Carolina Death Certificate issued and their manner of death.

The data from South Carolina Department of Juvenile Justice (SCDJJ) that is housed at the RFA, contains details on those juveniles referred to SCDJJ. Individual person level details on the juveniles charges, offenses, and dispositions are made available to the RFA on an annual basis from SCDJJ. The data provided to RFA is a relational database with a Master File for the individual persons with identifiers, demographics and address information, and charges file with details on the charges to the juvenile. These files can be linked using a SCDJJ assigned client ID. This information would provide background on our SCDPPPS cohort of closures. Information on the SCDPPPS clients' juvenile history in South Carolina is available at the RFA going back to the late 1990s (approximately 1996) through the end of FY2015. Information on the juveniles' offenses, charges, and dispositions were requested from SCDJJ.