Managing warrant databases effectively is an ongoing challenge for many local and state-level jurisdictions. Besides the complications of aliases and intentional and unintentional misinformation, warrant databases are often especially challenging to search efficiently. This brief summarizes a research project that was undertaken by a large southwestern county in the United States concerning deceased individuals with outstanding warrants. Initiated by a local judge, this research project identified a total of 1,089 active warrants assigned to 823 individuals who were reasonably believed to be deceased. While this accounted for less than 2 percent of the overall number of outstanding warrants, the project allowed authorities to close out several active court cases and promoted system efficiency. Details on how to replicate this study are included in this brief paper.

This brief summary of research conducted in 2004 provides insight into a rather simple idea that could improve warrant-processing efficiency in concerned jurisdictions. In late 2003, a large southwestern county was concerned about the number of outstanding misdemeanor and felony warrants in their jurisdiction. These concerns led to a number of reform initiatives aimed at reducing the number of outstanding warrants and improving warrant tracking. Besides the widely known strategies to improve warrant tracking used by a variety of jurisdictions, including warrant purging, improved warrant delivery, and other strategies to reduce the number of warrants issued, this jurisdiction chose to study a commonly overlooked area. One senior court official asked a seemingly simple question, which led to a startling discovery. The curious judge asked, “How many of the individuals in our county with outstanding warrants are actually deceased?” This was a research question that had never been considered before. When it was determined that nobody knew the answer to the question, funds were allocated to conduct a brief study to uncover the answers. This research brief documents the results of that research.

The first step in the project was to identify the most appropriate data source for matching deceased individuals against the county warrant-information-tracking system. Our first contact was with the Office of the Medical Investigator, who referred us to the state Department of Health, Office of Vital Records and Health Statistics. Besides accumulating health statistics and tracking vital data over time, the office is responsible for filing affidavits of paternity, keeping adoption records, and training hospital staff and physicians. The Office of Vital Records and Health Statistics is also responsible for
purging deceased individuals from county-voting rolls statewide. Administrators from the Office of Vital Records and Health Statistics met with the researcher to discuss the possibility of collaboration and soon reached an agreement to compare the statewide Death Index to the outstanding county warrant data.

MATCHING STRATEGIES

The warrant database in the jurisdiction in question is relatively simple and stores data in only one dynamic table. Data integrity in criminal-justice databases is always an issue as inaccurate information is compounded due to the variety of sources providing information. Criminal-justice data often has these types of errors because of the difficulty in confirming identities and data-entry problems resulting from human error. Of course, many individuals who would be subject to having a warrant are also actively working to avoid identification. Database design issues can also be a major problem affecting the quality of the data if there are inadequate internal controls to restrict inaccurate or illogical entries. Although the county had outstanding-warrant data going back more than twenty years, data in the system more than five years old was considered especially unreliable.

All states in the country have an office of vital records, which maintains the death records. Typically, death records are stored by calendar year. It is not surprising that it usually takes four or five months following the close of each calendar year to complete the data entry from the prior year and ensure the completeness of the data. These archives, often referred to as Death Index files, can have mistakes attributable to data-entry errors and misinformation. For these reasons, the data reported here should not be considered as conclusive or official evidence of death. In court, an official death certificate is ordinarily required to establish that an individual is deceased. Because of concerns relating to data reliability, we compared the warrant data file against the state Death Index files for 1997 through 2002. Persons who died before 1997 and after 2002 are not included in this search.

The warrant database has primary identifiers including last name, first name, date of birth, and Social Security number (SSN). These data were used to match against the Death Index files. A number of data-reliability problems in the warrant database soon became apparent as there were examples of illogical birth dates. Similarly, Social Security numbers were often inverted, missing, incomplete, or otherwise inaccurate. There were also problems with misspellings, different spellings, or both of names listed in the warrant database. Again, none of these issues are surprising or unusual given the nature of the population being tracked.

The names in the Death Index were matched as conservatively as possible to reduce the number of false positives—apparent matches who are still alive. The warrant database was matched against the Death Index files using a combination of primary identifiers using SAS software. Several different combinations of primary identifiers were used to produce a list of individuals believed to be deceased. At least eight passes
through the data were made, adding names each time a match was identified. For example, in the first pass, date of birth, the first initial of the last name, and the first initial of the first name were used. Next, a strict SSN match guided a search, and then we matched the SSN and date of birth. After that, an exact date-of-birth match was made, followed by several SOUNDEX matches to account for name misspellings. SOUNDEX is a phonetic algorithm for indexing names when pronounced in English. At each level duplicates were removed and new matches were added. After completing all of the logical but conservative variations, a total of 1,089 active warrants were found that were assigned to 823 individuals who were reasonably believed to be deceased. Some had multiple warrants. Approximately one-third of the active warrants were for individuals with felony charges.

The presumed deceased individuals had warrants issued between 1988 and 2002. The vast majority (93.0 percent) of all cases matched were for warrants issued after 1998. Nearly half (45.6 percent) of all warrants issued for presumably deceased individuals were issued in 1998 and 1999.

Although only the most conservative matches were included in the final list, it is quite likely that some individuals on the final list are not deceased. For example, there were observed instances of individuals with the same SSN and date of birth but different names. There were also cases with the same or similar names and dates of birth but different Social Security numbers. Thus, death-certificate verification and additional research will be required before conclusively determining the individuals identified are actually no longer alive.

RECOMMENDATIONS

Identifying deceased individuals and removing them from pending actions in the criminal-justice system will reduce the volume of files in storage at the courts and at law-enforcement agencies. Removing these names will promote other efficiencies as well. It is important, however, to develop a specific and formalized method for reviewing the list of presumed-dead individuals and purging the files. Perhaps less time should be invested in reviewing and purging petty misdemeanor warrants. Older warrants should be handled similarly. Certainly, felony warrants and more current misdemeanor warrants should be thoroughly reviewed. It is unclear to whom these tasks and decisions should fall. It is important, however, that decisions made by one player in the criminal-justice system communicate with the other players.

Is this type of inquiry necessary and, if so, with what frequency should it occur? While it seems like an important step to improve system efficiency, is it worth the effort? This project found only 1.7 percent of the outstanding warrants could be attributed to individuals presumed to be deceased. On the other hand, how many file boxes could be closed out and sent to archives as a result of this effort. If determined to be worthwhile, how often should the project be replicated? Based on this sample, 131 warrants assigned to presumably dead individuals were identified in the 2002 Death Index. In 2001, there
were 140 warrants, and in 2000, there were 133. It seems reasonable to expect future reviews of the Death Indices could yield somewhere between 130 and 200 warrants issued to deceased individuals per year. Based on these numbers, and the work required to compare the Death Index files and the warrant data, once every two or three years would seem to be a manageable time frame. Perhaps a more pertinent question would consider what types of bureaucracy would prevent or at least slow more systematic reviews of the Death Index. Besides the extra workload on the Office of Vital Statistics to investigate and create death certificates, court clerks will need to be assigned to make applications to receive the certificates, and prosecutors will need to dismiss the warrants. Finally, the experiences of this project exposed a number of data-collection and data-retrieval concerns and opportunities for improvement. Jurisdictions may find that determining the number of deceased individuals may improve overall system efficiency and, thus, be a beneficial undertaking. jsj