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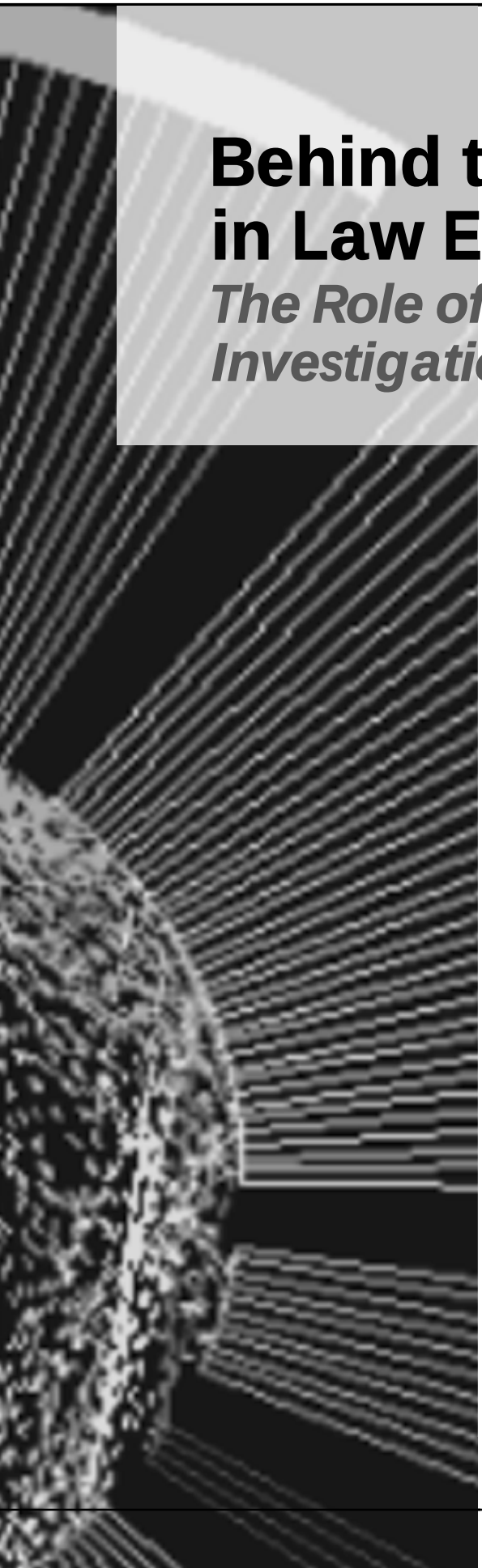
Behind the Scenes in Law Enforcement

NetMap for ClaimSearch and ViewLink Manager are data mining software tools which visually represent the relationships between claimants, addresses, providers, and claims.



Behind the Scenes in Law Enforcement

The Role of Analysts in Criminal Investigations and Prosecutions

by Christina Runkle, Paula Carter, and Annie Meredith

While the roles of prosecutors and investigators are well understood in the development and successful prosecution of a case, the law enforcement analyst's function is generally less recognized due to its background nature. Analysts can assist attorneys and investigators at all stages of a case as they manage, organize, and derive meaning from mountains of investigative data.

Generally, analysts help to marshal evidence gained from investigations by examining source and undercover information as well as witness interviews, physical and electronic surveillance, the execution of search and arrest warrants, and detailed review of insurance, patient, business, and financial records.

OIFP has had an analytical component since its establishment in 1998. Analysts are specially trained professionals who gather, organize, analyze, and derive meaning from data.[1] The majority of OIFP analysts have college degrees and have received law enforcement-related training in such areas as tactical and strategic intelligence analysis, criminal investigations, financial records examination and investigative analysis, computerized analytic methods, money laundering, organized criminal groups, and the New Jersey racketeering statute. Additional training in various software applications include Internet research, *Corel WordPerfect, Microsoft Access* and *Excel*, and *Analyst's Notebook*. Although analysts use a variety of tools to assist prosecutors and investigators, some of the main tools include extensive use of databases, investigative analysis, software, visual exhibits, and charts.

Databases

Analysts create and use databases that are critical to developing meaningful information at the beginning of a case. OIFP analysts can take an extensive flat file database[2] of relevant information and create a relational database[3] to facilitate the identification of pertinent files. Organization of information at the beginning of a matter is important in the identification of fraud schemes.

Other information gathered at the inception of a case such as telephone toll data may be helpful in defining the scope of a conspiracy if records show

1 Wayne J. Forrest and Marilyn B. Peterson, "Analytic Support for Prosecuting Attorneys," The Prosecutor September/October 1998:33. 2 A flat file database specifies data attributes (columns, data types, etc.) one table at a time. 3 A relational database takes the flat file approach several logical steps further. It allows for the specification of information in multiple tables and the relationships between those tables. This allows for more flexibility in queries and reports.

a particular pattern of calls between or among certain numbers, or a significant volume of calls on or around certain significant dates. The OIFP investigative team recognizes that the prompt analysis of the toll data may be critical to the further development of the case. The OIFP analysts utilize custom *Microsoft Access* database applications to expedite the entry of toll data and prepare call pattern and frequency analyses.

An analyst may then export the data from the existing program into another *Microsoft Access* database. This type of changeover permits analysts to query the information in a manner that facilitates the identification of criminal conspirators.

Seized evidence, including patient files, billing records, check registers, corporate papers, disbursement journals, and tax records, is important. Analysts may develop *Microsoft Access* databases specific to patient information which capture the following fields: file origination date, policy number, claim number, patient name, date of loss, insurance company, payments by the carrier, and source information, including voucher and item numbers. Multiple queries and reports are created to assist investigative staff in the prompt location of pertinent patient files within such databases.

As the investigation progresses, this same type of database permits analysts to isolate information, such as staged accidents and "runners" responsible for each, and to quantify the billings generated and payments made by insurance carriers for suspect collisions. Additional fields permit further distillation of the data. Data distillation allows for the generation of reports that isolate fraudulent events based on specified individuals and providers involved in a fraud.

Additionally, OIFP analysts create custom databases that establish the cash flow between and among various co-conspirators, track corporate ownership, and profile individuals employed by various entities such as doctors, accountants, and clerical staff.

After categorizing information and defining fields, analysts build tables, queries, and data entry forms. The completed database gives an investigative team the ability to track financial transactions by individual and corporate entity. Analysts may also create profiles of pertinent individuals and

OIFP Reporting Requirements

Insurance carriers must provide their ISO Assigned Code and ISO Universal Field Name as well as submitting the following information:

Policy Number	City	Business Name (Choose from ISO Appendix C)	VIN	Role in Claim
Policy Type	State	Address Information	Date of Recovery (Theft)	Role in Claim (if service providers reported with claim, their names, address required)
Claim Number	First Name (Role CL)	City	Vehicle Make	Individual/Business Indicator
Date of Loss	Last Name (Role CL)	State	Recovery Agency	Business Name (if a business)
Location of Loss Address (incl. State)	Address Information	Coverage Type	Condition of Recovered Vehicle (Theft)	Last Name
First Name (Choose either Role IN, CL)	City	Loss Type	VIN	First Name
Last Name (Choose either Role IN, CL)	State	Alleged Injuries/ Property Damage	Owner Retaining Salvage Indicator	City
Business Name (Choose either Role IN, CL) -Required if a Business	First Name (Choose from ISO Appendix C)	Vehicle Year	Date of Salvage	State
Address Information	Last Name (Choose from ISO Appendix C)	Vehicle Make (Abbrev.)	Buyer's Business Name OR Last and First Name (if owner did not retain salvage)	

businesses via the collection of addresses, phone numbers, other identifying numbers, company/individual affiliations, and the source of their connection. Analysts also use databases to capture events or other relevant evidence specific to the profiled entity. Such databases provide voucher and item number references for each piece of information so the supporting documentation may be retrieved for review, or for use at trial. Analysis of database information pertaining to one defendant may even reveal additional criminal acts.

After analysts compile information for use through creation of databases, they can add to the financial database and use corporate profiles to prepare a link chart in a visualization program called *Analyst's Notebook*. Use of *Analyst's Notebook* may begin the focused preparation of a case for a grand jury presentation. Using *Analyst's Notebook*, analysts create charts that can show such information as all defendant-owned or controlled clinics and management companies, all corporate officers, and connections to other clinics and management companies owned or operated by relatives, or associated physicians. Charts also provide incorporation dates and can depict name changes for certain clinics. Charts serve as quick reference guides to the numerous business entities and players affiliated with each.

Often the complexity and volume of information a prosecutor can present to the grand jury or trial jury prompts a request for preparation of charts that can simplify the presentation of the evidence by facilitating a visual analysis of demonstrative evidence.

Analysts assist in the effort of the State to recover restitution. Analysts organize personal and corporate tax information into *Excel* spreadsheets and add tax return information seized from defendants. Detailed review of tax documents and careful organization of corroborative financial evidence are beneficial when analysts are tasked with determining a defendant's worth for criminal restitution purposes. It also provides a valuable benchmark as to the accuracy of the financial picture from a review of seized business and subpoenaed bank records. Flow charts are prepared in anticipation of a net worth analysis or asset forfeiture question.

Future Analytical Tools

To provide even more support to prosecutors and investigators, analysts continue to consider tools in developing cases, such as the All Claims Database, an in-house data source; i2's *Analyst's Notebook Version 6*, an enhanced form of this visual analysis program; and *Sanction*, a trial presentation application.

All Claims Database

The long-anticipated All Claims Database, mandated by the Automobile Insurance Cost Reduction Act (AICRA), became operational in 2004. AICRA tasked OIFP with developing a database containing all automobile claims paid by designated insurance companies conducting business in New Jersey. The database will include over 130,000 in automobile bodily injury claims and 500,000 in automobile property claims estimated to be paid annually by the insurance industry. The New Jersey Legislature determined that such a database would be an invaluable investigative tool and source of statistical data for the identification of fraudulent patterns and trends in filed insurance claims. Analysts will examine information in the database for patterns of fraudulent activity. OIFP analysts may then share the information with County Prosecutors, local law enforcement officials, and the New Jersey State Police.

The All Claims Database Unit is staffed with a Supervising Special In-

vestigator and three analysts. The Unit responds to requests for investigative assistance on open cases. The Unit also actively seeks to identify fraud schemes. For instance, analysts have searched the database for geographic areas exhibiting high accident rates, and for physicians whose patients' claims have been reported as suspicious to the National Insurance Crime Bureau (NICB). In addition to developing leads for OIFP investigators, the Unit can identify suspected fraudulent activity that impacts another state and forward the information to the prosecuting authority for investigation.

OIFP has also entered into an agreement with Insurance Services Office, Inc., (ISO) of Jersey City to data mine[4] claims information from its national database. ISO is an information services provider to the property and casualty insurance industry. The majority of New Jersey carriers already provide ISO with data, and the ISO database already contains suspicious claims information.

OIFP has also purchased two data mining applications to assist in the detection of fraudulent claims patterns: *NetMap for ClaimSearch* and *ViewLink Manager*. *NetMap for ClaimSearch* analyzes claims data from *ISO ClaimSearch*, the most comprehensive claims database available for property, casualty, and auto insurance.[5] It facilitates the analysis of multiple claims, by permitting analysts to view various connections across time, claims, and physical distance, instead of searching claim by claim. *View Link Manager (VLM)* is an automated visual link analysis tool that sorts through data to reveal connected items and the nature of their relationship.

NetMap and *VLM* draw lines that connect individuals, addresses, and claims. For example, Subject A is found to have been in an auto accident in early May 2004. Subject A also is found to share an address and telephone number with Subject B. Subject B is found to have had an auto accident, while driving Subject A's car, in late May 2004. Subjects A and B are both found to have been receiving medical treatment from Doctors C, D, and E. This scenario gives the analyst a nexus for a potential insurance fraud case. If connections indicate that a certain subject is more integral to the case, the focus of the investigation can be quickly shifted to limit extraneous investigative effort.

The All Claims Database Regulations were developed and promulgated in the N.J. Register in 2004, fulfilling the statutory mandate under AICRA.

Analyst's Notebook Version 6

OIFP analysts continue to use the industry standard for investigative analysis software among law enforcement agencies, *Analyst's Notebook*. The program enables analysts to present complex scenarios in simple intuitive charts that have been used as aids in case development and for grand jury and trial exhibits.

In 2003, the manufacturer significantly enhanced the capabilities of *Analyst's Notebook* with the release of *Version 6*. OIFP analysts have begun to integrate the new, improved documentation and data import features into their investigative support efforts. *Analyst's Notebook* now allows for the combination of time line and network

4 According to WordNet ® 2.0, © 2003 Princeton University, data mining "is data processing using sophisticated data search capabilities and statistical algorithms to discover patterns and correlations in large preexisting databases; a way to discover new meaning in data." 5 In 1997, ISO acquired the Index System, a database of bodily injury claims, and the Property Insurance Loss Register (PILR), a list kept by the American Insurance Association of all fire losses over $500,000. In 1998, the National Insurance Crime Bureau (NICB) transferred its auto (VIN history, salvage records, etc.) and claims databases to ISO. Under the ISO umbrella, the bodily injury, property, and auto and claims databases were merged to form ISO ClaimSearch.

views of investigative data and it permits analysts to automatically switch from one to the other. It further allows for the conversion of chart information to a spreadsheet format. This facilitates sorting, evaluating, and duplicating data into *Microsoft Excel* and other similar applications. Finally, *Analyst's Notebook Online iLink* enables analysts to pull information from online sources, such as *LexisNexis*, and drag-and-drop the information directly into an existing *Analyst's Notebook* chart. *iLink* automatically merges the data from the online sources with existing data sources. Further, the online source items maintain ties to their underlying source so analysts can automatically update charts.

Sanction

The *Sanction* program is a trial organization and presentation software program purchased in 2004 by OIFP. *Sanction* was adopted by the U.S. Department of Justice as the standard for federal prosecutors. OIFP analysts will use *Sanction* to assemble case exhibits, design video and audio clips, and to edit and annotate transcripts and documents. Using *Sanction*, analysts will provide technical support to prosecutors whose cases benefit from a digital court presentation by operating the program during trials.

Conclusion

Law enforcement analysts assist investigators and prosecutors at virtually every phase of a major insurance fraud probe. In prosecutions and investigations, analysts assist in the management, organization, and evaluation of thousands of pieces of evidence, including data collected from carrier files, toll and DNR records, seized patient files, and seized and subpoenaed financial and corporate records. By developing and using databases and support products, analysts develop and refine visual aids for use before the grand jury and at trial. Any case can benefit from analysts' critical thinking and the application of one or more analytical techniques to help organize, evaluate, and make sense of any volume or type of evidence used by investigators and prosecutors to successfully prosecute their case.

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