



The Council of State Governments
Sharing capitol ideas.

2011 Innovations Awards Application

DEADLINE: MARCH 28, 2011

ID # (assigned by CSG): 2011- _____

Please provide the following information, adding space as necessary:

State: **North Carolina**

Assign Program Category (applicant): **Public Safety/Corrections: Criminal Justice** (Use list at end of application)

1. Program Name: ***CJLEADS (Criminal Justice Law Enforcement Automated Data Services)***
2. Administering Agency: ***North Carolina Office of the State Controller***
3. Contact Person (Name and Title): ***Kay Meyer, Data Integration Project Manager***
4. Address: ***3512 Bush Street, Raleigh, North Carolina, 27609***
5. Telephone Number: ***919.981.2544***
6. FAX Number: ***919.981.5567***
7. E-mail Address: ***kay.meyer@osc.nc.gov***
8. Web site Address: ***www.osc.nc.gov or www.cjleads.nc.gov***
9. Please provide a two-sentence description of the program.

CJLEADS integrates criminal justice data from a variety of organizations to create comprehensive profiles of offenders and provides this information to criminal justice professionals through a single, secure web-based application. CJLEADS has two primary objectives: 1) to define a comprehensive profile of an offender's North Carolina criminal history including photographic images; and 2) to provide a watch-list capability to alert criminal justice professionals when offenders have a change in status such as an arrest or release from custody.

10. How long has this program been operational (month and year)? Note: the program must be between 9 months and 5 years old on March 28, 2011 to be considered.

The CJLEADS system was initially deployed to approximately 3,000 users in Wake County with the first users training in April, 2010. Following the documented success of the Wake County deployment, statewide deployment is now expanding the application to an estimated 33,000 users statewide.

11. Why was the program created? What problem[s] or issue[s] was it designed to address?

In 2008, University of North Carolina Student Body President Eve Carson and a Duke University graduate student, Abhijit Mahato, were murdered.

The suspects in these murders were repeat offenders whom the criminal justice system overlooked multiple times while they were on probation. An investigation found that gathering all criminal information related to an offender required multiple queries in different criminal justice applications and manual matching of data to develop a comprehensive picture of the offender. This lack of centralized information limited the effectiveness of criminal justice professionals when making decisions.

The NC General Assembly set forth funding and an aggressive timeline to create a criminal justice data integration system. The NC Office of the State Controller (OSC) was designated to manage the data integration project.

12. Describe the specific activities and operations of the program in chronological order.

In October, 2008, the OSC and the State Chief Information officer initiated work with its vendor partner SAS to develop an integrated criminal justice data system. The OSC and SAS collaborated with eight different state agencies to establish data governance, resolve legal, statutory and regulatory issues associated with data sharing, and develop business requirements. Critical components included role-based security, highly complex data integration logic and extensive audit capability. The CJLEADS application supports a wide variety of criminal justice professionals including judges, magistrates, district attorneys, clerks of court, prison officials, probation and parole officers, juvenile court counselors and federal, state and local law enforcement officers.

OSC, SAS, and the Office of Information Technology Services (ITS) collaborated to design and approve the production architecture. In May, 2009, the initial CJLEADS pilot application, with limited Court and Corrections data residing on test environment hardware, was released to the state project team representing the criminal justice agencies.

From June, 2009 through April, 2010 design activities continued to refine the initial pilot application, to add data sources and user interface functionality. Court and Corrections data was enhanced and refined. Jail booking information was added along with refined data integration, record search capability, and auditing. The production architecture was implemented and initial users were trained and began using the application. User administration, training and 24x7 Help Desk Support operations began.

From May, 2010 through December, 2010, the Wake County pilot training and deployment continued with usage growing to approximately 3,000 users. Design activities continued and a real-time web interface for Division of Motor Vehicle data and integration of the NC Sex Offender Registry was completed and deployed in Release II of the application.

A survey conducted at the end of the Wake County deployment indicated highly positive feedback on the application design, data content and system performance. With the success of the Wake County pilot, statewide expansion activities began.

January, 2011 – March, 2011 –

CJLEADS continues to be deployed statewide with over 2,200 users trained between January and March. Design activities will continue to add new data and functionality. Deployment and

training activities will continue as the system expands statewide to over 30,000 criminal justice users.

13. Why is the program a new and creative approach or method?

The CJLEADS project demonstrates new and creative approaches to providing criminal justice professionals with comprehensive, integrated offender information:

- **Collaboration** - *as a data integration initiative, collaboration by multiple state, local and federal agencies was critical to the success of the application. More than eight different state agencies and 100 state employees worked with the OSC and SAS to define data governance, business rules, security, and auditing requirements. This “community of interest,” led by an interagency leadership council comprised of the executives of the criminal justice organizations, allowed the project to break down legal, regulatory, and administrative barriers, enabling the sharing and clustering of information in CJLEADS.*
- **Data Clustering** - *CJLEADS implemented a complex, analytic process that allows “clustering” of information. Offender data is identified differently in each of the data source systems and may include data that is old and may have limited identifying information. As a result it is difficult to compile a complete picture of an offender’s criminal information. The CJLEADS project team used SAS technology to develop complex clustering processes that allows the system to match the records for an individual and cluster them together to create a comprehensive profile of an offender. Because criminal justice professionals may make life and death decisions based on CJLEADS data, it is critical that the confidence in the clustering process is extremely high. Risk assessments are performed on each cluster and any cluster with suspect data is clearly marked with a risk flag. Testing and analysis found that CJLEADS clusters were 96.6% accurate.*
- **Photographic Images** – *the ability to positively identify an offender is critical to law enforcement. Most of the systems currently in use in the field do not have photographic images. CJLEADS provides multiple offender images from the NC Courts, Department of Corrections, Sex Offender Registry and jails to the law enforcement officer in the field. Real-time DMV images are also available.*
- **Warning Icons** – *law enforcement officers need information quickly to be able to interact with potential offenders in a safe, informed manner. When a user searches CJLEADS for an offender, the search results quickly provide critical information, in the form of Warning Icons, about those individuals matching the search results. For example, if a person has a history of assaultive behavior, an Approach With Caution (AWC) icon appears. Other icons alert officers to drugs, weapons, probation/parole, outstanding warrants, sex offender, etc. This information allows the officer to make a knowledge based decision and determine the best approach for interaction the individual.*
- **Alerting** – *the CJLEADS alerting function allows criminal justice professionals to identify persons of interest and add them to a watchlist. If the individual on the watchlist has a change in status such as release from custody, or upcoming court date, the criminal justice professional will receive an e-mail alert. For example, a probation officer would be alerted if someone on his case management list is arrested in another county. This allows criminal justice professionals to be better informed and take action as needed.*

For examples of how CJLEADS is helping criminal justice professionals, please see Appendix A. Media coverage and letters of support written for a National Governor’s Association award are also attached.

14. What were the program’s start-up costs? (Provide details about specific purchases for this program, staffing needs and other financial expenditures, as well as existing materials, technology and staff already in place.)

	FY 2009	FY 2010	FY 2011 (estimated)
A Software License	\$ 2,000,000	\$ 2,000,000	\$ 2,000,000
B Contracted Services	128,091	201,394	670,000
C State Personnel Resources		152,876	1,261,066
D Administrative Costs		36,331	231,855
E Design/Development Services		2,328,014	2,025,841
F Hosting Services		2,924,412	2,438,991
Total Costs	\$ 2,128,091	\$ 7,643,027	\$ 8,627,753

- A. *An existing SAS Enterprise License Agreement was extended to include the NC Judicial Branch as well as licensing and usage for state, local and federal law enforcement.*
- B. *Contract staff provided project management as well as acted in legal and criminal justice advisory capacities. Funds were also available to support data source agency efforts.*
- C. *State personnel resources – business analysts, developers, technical support, training, user administration, and customer support.*
- D. *Administrative Costs – training, deployment, equipment, phones, supplies, e-mail, etc.*
- E. *Design/Development Services – SAS-contracted services to design and develop the data integration and user interface application.*
- F. *Hosting Services – SAS hardware, communications, networks, and technical support for the production, test, and development environments.*

Return on investment is a significant factor. Today, criminal justice professionals must search multiple systems to develop a comprehensive profile of an offender’s criminal history. Often, that search time, plus lack of access to some data sources, hinders the timely creation of an offender profile. With limited budget and personnel, time constraints may result in actions or decisions based on incomplete information. Conservatively, if criminal justice professionals in Wake County run 1,500 CJLEADS queries daily, and each query saves an average of five minutes per search, the cost savings in Wake County alone is estimated at \$1 million annually. This does not represent a reduction in workforce, but improved efficiency, information and decisions.

By 2015, the statewide return on investment based on time savings, increased productivity and lives saved is estimated to be \$28 million. The state will also realize savings by avoiding unnecessary processes. Using CJLEADS analytical reports, the courts can reduce failure to appear processing by identifying offenders on the court docket who are currently being held in county jails or state prisons. Outstanding warrants and orders for arrest can be researched and served to offenders appearing in court or while in country jails. The availability of photographic images to make positive identification will reduce the processing and paperwork to clear citations or charges that were filed the wrong person.

15. What are the program’s annual operational costs?

Annual operating costs are anticipated to be approximately \$9 million.

16. How is the program funded?

The NC General Assembly has provided recurring funding to support CJLEADS statewide deployment and on-going operations and maintenance.

17. Did this program require the passage of legislation, executive order or regulations? If YES, please indicate the citation number.

CJLEADS required the passage of legislation, and the applicable bill cites include:

SESSION LAW 2007-323, HOUSE BILL 1473

SESSION LAW 2008-107, HOUSE BILL 2436

SESSION LAW 2008-118, HOUSE BILL 2438

SESSION LAW 2009-451, SENATE BILL 202

18. What equipment, technology and software are used to operate and administer this program?

SAS Enterprise BI Server, SAS Enterprise Data Integration Server, SAS Enterprise Miner, duplicate data center environments to ensure high availability, commodity hardware with multi-parallel processing for optimized performance

19. To the best of your knowledge, did this program originate in your state? If YES, please indicate the innovator's name, present address, telephone number and e-mail address.

Yes. The North Carolina General Assembly recognized the need for a state of the art, integrated criminal justice application to support criminal justice professionals throughout the state. The General Assembly designated the Office of the State Controller to manage the CJLEADS program. David McCoy is the State Controller, and Kay Meyer is the OSC Data Integration Project Manager.

20. Are you aware of similar programs in other states? If YES, which ones and how does this program differ?

Based on feedback from state, local and federal law enforcement organizations that have seen demonstrations of the application, CJLEADS is in the forefront of providing integrated criminal justice information.

21. Has the program been fully implemented? If NO, what actions remain to be taken?

No. Statewide deployment of CJLEADS will continue through June, 2012. Statewide deployment is being completed in three regional phases. Phase I will be complete by June, 2011 and will expand the user base from 3,000 users to over 11,000 users. Phase II and Phase III are scheduled to complete by June, 2012 and will expand the user base to over 30,000 users.

The design and development team will continue to add critical data sources and functionality as well as optimize the system based on feedback and input from CJLEADS end-users.

22. Briefly evaluate (pro and con) the program's effectiveness in addressing the defined problem[s] or issue[s]. Provide tangible examples.

The goal of CJLEADS is more efficient, better informed decisions and the improved public safety of North Carolina citizens. The success of CJLEADS is in the day-to-day decisions of court officials, corrections officers and law enforcement officers. Having summary and detail-level information in a single, easy-to-use integrated application provides readily accessible data for efficient, informed decisions. To help prevent situations such as the tragic events that highlighted the need for the program, CJLEADS allows a judge, magistrate or law enforcement officer to see pending charges, probation information and violations, and a history of previous charges and sentencing of offenders from all counties in the state, allowing for more complete information when deciding whether to hold the person in custody or release them on bail or bond. Based on feedback from our users, CJLEADS has already led to improved actions and decisions based on reliable information.

At the completion of the Wake County pilot, the CJLEADS team conducted a survey to capture user opinion and measure the initial impression of the CJLEADS application. The survey was sent to all trained users and the team received 177 responses. The responses provided the following feedback:

- 91% of respondents indicated the data delivered in CJLEADS was reliable and valid for their use*
- 100% of respondents indicated that CJLEADS was a benefit to their organizations*
- 99% of respondents indicated that CJLEADS improved their ability to receive offender information more quickly*
- 98% and 97% of respondents indicated that CJLEADS improved their ability to use offender information more effectively (98%) and efficiently (97%)*

Criminal Justice professionals have provided numerous examples of success using CJLEADS during the pilot including:

- Department of Insurance investigators planning surveillance of a fugitive used CJLEADS and discovered the individual was scheduled to appear in a county court for a traffic violation. The individual was arrested at the court appearance, saving hours of surveillance work.*
- An officer questioned individuals during a traffic stop. One person provided a fictitious name. Searching that alias in CJLEADS, the officer discovered and confirmed outstanding warrants and arrested the person onsite. Searching CJLEADS also led to the arrest of other occupants in the car, who also had outstanding warrants.*
- ABC officers investigating a larceny viewed security video of an unidentified suspect who subsequently made a purchase using another's credit card. By searching associates of the credit card owner in CJLEADS, investigators found a photo image that was an exact match with the suspect in the video, leading to an arrest.*

To read more from criminal justice professionals about how CJLEADS is helping them catch criminals, go to <http://www.cjleads.nc.gov/>.

The greatest challenge with CJLEADS is providing internet capability in patrol cars in rural or remote areas where cellular services are limited. Improved cellular coverage or higher bandwidth radio communications are needed to ensure the ability to use CJLEADS in the field in all areas of the state.

23. How has the program grown and/or changed since its inception?

The CJLEADS project has focused on innovation and creativity in the design and development of the application, allowing the program to be responsive to user requests and needs. The OSC employed focus groups, panel discussions, screen mock ups with sample data and other techniques to ensure the CJLEADS design represented a comprehensive, integrated system to meet the needs of the criminal justice community.

At the suggestion of focus groups of court officials and law enforcement, the application design was enhanced to provide features including night vision for officer safety, a graphical timeline to provide courts with a “quick picture” of an offender’s history, and search capability that allows the user to quickly find their person of interest. The watchlist and alerting capabilities were designed based on the focus group feedback to provide updates to criminal justice professionals, facilitating necessary, appropriate action. Sample screen shots of the CJLEADS are included in Appendix B.

As CJLEADS is being deployed statewide, the project team continues to receive requests and suggestions from end users for additional data source and functionality to enhance the scope of the application.

24. What limitations or obstacles might other states expect to encounter if they attempt to adopt this program?

CJLEADS is highly replicable in other states, no matter where data is stored or in what environment. Data governance and an ability to resolve the legal, regulatory, and statutory issues associated with data integration will be integral to the success of this type of project in other states.

CSG reserves the right to use or publish in other CSG products the information provided in this application. If your agency objects to this policy, please advise us in a separate attachment.

APPENDIX A

CJLEADS Feedback

Stories from law enforcement officers trained during the Wake County Pilot and Phase I deployment:

- *“I use CJLEADS every shift, especially since the DMV information was added. I can say for certain that plenty of average citizens have been saved a trip to jail thanks to the CJLEADS DMV information since I am finally able to view driver’s license pictures of everyday people when I pull them over and they have forgotten their license. Just a few months ago it seemed like the only people who were saved a trip to jail were the people who had already been arrested since they were the only people with photo identification that I could access in CHIEFS. I am sure that there are more stunning success stories, but I feel like this small feature is really the one that is the most important to the average law-abiding citizen who just happens to have one of those days when they forget their ID.”*
- *“CJLEADS has been an extraordinary tool to use in the field of law enforcement. I have been assisted in various ways using the technology of CJLEADS, namely having advanced knowledge of individuals in matters of law enforcement prior to engaging or enforcement action can be a tactical advantage for officers. Knowing the history of the subject prior to interaction permits the officer to enhance preparation in dialog during the investigatory process, thus aiding in officer’s safety.”*
- *“I was dispatched to a call where an elderly citizen suffering from dementia walked away from her residence, she could only remember her name and the name of her adult son with whom she lived with, not much more. The senior citizen had crossed one of the most busy streets in North Raleigh during rush hour traffic. Through the use of the tools provided in CJLEADS I was able to locate information on the son of the elderly citizen, find an address and return the senior citizen safely to her home.”*
- *“I made a traffic stop and both subjects in the vehicle provided me with NC license and ID. Both subjects had addresses in Morganton NC. Only one of the subjects had been arrested in Mecklenburg County but it was for something minor. Because of CJLEADS I was able to pull up their criminal histories in the counties where they had been arrested. Both subjects had numerous arrests for drugs, and one of the subjects had violent gun charges. With that information I decided to pat down the subjects and vehicle for weapons. During the pat down for weapons of the vehicle a hairspray bottle was located that contained over 57 grams of crack cocaine. Without CJLEADS I would have never known the criminal history of these two subjects and they would have driven away with a simple seatbelt ticket.”*
- *“It is the most useful tool in my 22 years. Had a subject give me a false name. He did use his correct last name. I let him go then searched CJLEADS and due to the picture was able to acquire his real name and 3 outstanding warrants. He was then relocated and arrested. Has increased my arrests.”*
- *“I am employed at High Point Police Department. CJLEADS has been beneficial in finding that Failure to Appear papers are being issued on subjects that are already in custody somewhere in the state. I have been able to return the Order for Arrest back to the clerk.”*
- *“CJLEADS Rocks! I prepare District Attorneys for 1st Appearance and District Court with information about offenders – especially those with Domestic Violence activity or repeat violent activity. After the excellent training session on CJLEADS, I quickly began using information to give prosecutors and presiding judges a better understanding of offender’s history. Just yesterday, a repeat violent offender who had been called in by our Violent Crimes Task Force and warned to stop his violent crimes, was arrested for robbery while on probation. I quickly accessed the CJLEADS summary and Asst. District Attorney commented how clear and concise the information was presented. The ADA added that she rarely has time during 1st Appearance Court to sort through the paperwork to find all the relevant information. She found the sex registry section very helpful and mentioned the actual sentence results with end dates, along with community corrections dates, particularly helpful. Our offender was given a million dollar bond largely because the information was so clearly presented to the judge.”*

(NOTE: The stories above have not been edited to correct grammatical errors, etc. and represent the content as provided to OSC by the criminal justice professional.)

APPENDIX B

CJLEADS SUMMARY Screen – Sample Data Only

Offender info for: JOHN JULIAN PORTER


JOHN JULIAN PORTER AWC OFA SOR GNG
Lookup Print Add to Watchlist

SSN: XXX-XX-1111 FBI ID: 122233JB1 SID: NC9988776A Age: 34 DOC ID: 0327401 DL: NC-16400000

Summary Timeline Court Records Outstanding Jail Prison DV ComCorr SOR Gangs Marks

JOHN JULIAN PORTER AWC OFA SOR GNG

Address: 801 N OAK STREET, DURHAM, NC 27707

Birth date: 01/01/1976 FBI ID: 122233JB1
 Age: 34 SID: NC9988776A
 Race: BLACK SSN: XXX-XX-1111
 Gender: MALE DL: NC-16400000
 Height: 67 DOC ID: 0327401
 Weight: 219 Concealed: DATA NOT AVAILABLE
 Eyes: BROWN SRN ID: R01
 Hair: BLACK Occupation:


 DOC 03/30/2009

Outstanding Processes Unserved Processes - 0 Felony - 0 Misdemeanor - 0 Infraction - 0 Traffic - 2	NC Court Records Pending - 2 Disposed - 64	Jail Current - No Previous - Yes Escaped - No
Prison Current - Yes Previous - Yes Escaped - No	Community Corrections Current - No Previous - Yes Absconded - No	Sex Offender Registry Pending Registration - No Active Registration - Yes Prior Registration - Yes Registration Type - AGGRAVATED OFFENDER Registration Contact Agency - Wake
Marks / Scars Yes	Gang Affiliations Yes	Domestic Violence Case(s) - 3

CJLEADS TIMELINE – Sample Data Only





The Council of State Governments
Sharing capitol ideas.

2011 Innovations Awards Application Program Categories and Subcategories

Use these as guidelines to determine the appropriate Program Category for your state's submission and list that program category on page one of this application. Choose only one.

Infrastructure and Economic Development

- Business/Commerce
- Economic Development
- Transportation

Government Operations and Technology

- Administration
- Elections
- Information Systems
- Public Information
- Revenue
- Telecommunications

Health & Human Services

- Aging
- Children & Families
- Health Services
- Housing
- Human Services

Human Resources/Education

- Education
- Labor
- Management
- Personnel
- Training and Development
- Workforce Development

Natural Resources

- Agriculture
- Energy
- Environment
- Environmental Protection
- Natural Resources
- Parks & Recreation
- Water Resources

Public Safety/Corrections

- Corrections
- Courts
- Criminal Justice
- Drugs
- Emergency Management
- Public Safety

Save in .doc or rtf. Return completed application electronically to innovations@csg.org or mail to:

CSG Innovations Awards 2011
The Council of State Governments
2760 Research Park Drive, P.O. Box 11910
Lexington, KY 40578-1910

Contact:

Nancy J. Vickers, National Program Administrator
Phone: 859.244.8105
Fax: 859.244.8001 – Attn: Innovations Awards Program
The Council of State Governments
E-mail: nvickers@csg.org

This application is also available at www.csg.org.