Secure Communities: Statistical Monitoring
(last revised Nov. 16, 2011)

The Secure Communities program works after fingerprints submitted by police to the FBI for checks against various criminal justice databases are checked in turn against Department of Homeland Security (DHS) databases, revealing which fingerprinted arrestees may be removable aliens. Usually in a matter of hours after fingerprinting, U.S. Immigration and Customs Enforcement (ICE) receives the names of possibly removable alien arrestees and can determine the appropriate immigration enforcement action. Secure Communities' principal tool for identification of such persons is its use of "IDENT/IAFIS interoperability"—a data conduit connecting the FBI's Integrated Automated Fingerprint Identification System (IAFIS) with DHS US-VISIT's Automated Biometric Identification System (IDENT).

The data and information available to DHS as a result of Secure Communities' use of IDENT/IAFIS interoperability offer a window into policing practices that may help identify potential civil rights problems linked to the program. DHS is committed to ensuring the Secure Communities program incorporates robust civil rights oversight. To that end, the DHS Office for Civil Rights and Civil Liberties (CRCL) and ICE have developed a three-part process for identifying jurisdictions in which further analysis and possibly oversight measures may be warranted:

- *Statistical monitoring* to detect anomalous jurisdictions;
- *Statistical analysis* to understand those anomalies; and
- *Direct investigation* of unresolved anomalies and civil rights complaints.

A. Statistical monitoring

In June 2011 ICE Director John Morton and DHS Officer for Civil Rights and Civil Liberties Margo Schlanger announced DHS's plan for a quarterly review of Secure Communities-related statistics. This statistical monitoring initiative is conducted by CRCL staff and an academic expert in criminological statistics, assisted by ICE staff. The statistical monitoring is designed to identify jurisdictions with statistically anomalous data. These jurisdictions then receive additional, in-depth analysis. A statistical anomaly does ***not*** conclusively determine that the jurisdiction is making inappropriate or unlawful arrests. Some anomalies are likely to be pure artifacts of the limited data available, and not, upon examination, probative of improper practices.

The statistical metrics that have been designed for this initiative aim to identify a set of jurisdictions for additional analysis, based on the limited available information. The statistical monitoring relies on several forms of data available from federal sources:

- **Fingerprint submission** counts, reflecting all fingerprint submissions to the FBI's IAFIS in counties in which Secure Communities is activated;

- **Alien fingerprint match** counts, indicating that a fingerprint submission corresponds to a record of an alien in the DHS IDENT database;

- **American Community Survey (ACS)** data on the total and foreign-born population by jurisdiction, produced by the U.S. Census Bureau (we use the 5-year survey estimates, currently covering years 2005-09, and will update as new data are released); and

- **Uniform Crime Reports (UCR)** data on the number and types of arrests, by reporting agency, produced by the FBI as one of its national crime-reporting programs. The raw FBI data are adjusted to account for variation in coverage among agencies, and then categorized to approximately track the distinction between aggravated felonies and other arrests. (We use 2008 data, the latest analyzable dataset.)

We aggregate all data at the county level, and remove from the analysis counties with so few IDENT matches that meaningful statistical analysis is impossible. Results are then separated between larger (over 100,000 population) and smaller (under 100,000) counties, which tracks a county-size division used by the UCR. All counties that are activated in Secure Communities for at least one full quarter are analyzed. For states that do not participate in the UCR program, we substitute state-level crime reporting data, if data comparable to the UCR are available. When comparing quarterly Secure Communities data to annual UCR data, we divide the annual UCR figure by four to obtain an average quarterly value.

The purpose of the review is to choose appropriate jurisdictions for additional analysis; this will focus on jurisdictions that rank in the top ten among larger counties, or in the top five among smaller counties, on one of the first two metrics described here; rankings on the third metric primarily serve to check and prioritize among the jurisdictions that rank high on the first two metrics. To the extent resources permit, additional jurisdictions may also be analyzed further.

1. Foreign-born arrestee comparison

Compares IDENT matches as a portion of all fingerprint submissions with foreign-born proportion of population

Secure Communities' use of IDENT/IAFIS interoperability examines individuals whom IDENT identifies as aliens—"alien IDENT matches." IDENT records of known U.S. citizens are disregarded by Secure Communities.

The first data metric compares **the fraction of a county's arrestees who are alien IDENT matches to the fraction of the county's population that is foreign-born**, as determined by the ACS. We then rank jurisdictions by the extent to which the rate of alien IDENT matches exceeds the foreign-born population.

$$\textbf{Foreign Born Arrestee Comparison} = \frac{\frac{\text{IDENT Matches}}{\text{IAFIS Submissions}}}{\% \text{ Foreign Born}}$$

For example, in a jurisdiction where 20% of submitted fingerprints lead to an alien IDENT match, but the underlying population is 5% foreign-born, this metric will be 4—and the jurisdiction will rank higher than a jurisdiction where 20% of arrests are IDENT matches but 10% of the population is foreign-born, for which the metric is 2. Jurisdictions that rank high on this measure seem appropriate for further analysis because those are the jurisdictions where aliens appear to constitute a significantly

greater fraction of the arrested population than they do of the general population. Sample data and calculations are provided in part 4, below.

This metric has four important limitations, the first two of which we are working to address across all jurisdictions, and the last two of which can be taken account of in followup analysis:

1. Sometimes individuals who are arrested and booked are fingerprinted more than once at different points in the criminal justice process. The rate at which individuals are fingerprinted multiple times in the process—and accordingly appear more than once in our data set—varies from place to place (although early review indicates that the variation is small), and could affect the ratio of matches to submissions in particular jurisdictions. We are investigating this duplication issue and may in the future adjust the metric to account for variations in duplication rates between counties. (The second metric, described below, is duplication-adjusted, which minimizes the impact of this data imperfection.)

2. IDENT does not cover the foreign-born population at a uniform rate across jurisdictions. Persons who have entered without inspection (as by illegally crossing the border between ports of entry), and have no prior encounter with federal immigration agencies, will generally not be in IDENT. Communities where such persons make up a higher percentage of aliens will have a lower IDENT match rate, relative to the total foreign-born population, than will communities where most foreign-born persons, including illegal aliens, entered after inspection (such as by overstaying after expiration of a visa). ICE is working to better understand variation in IDENT coverage of the foreign-born population.

3. In some jurisdictions, a substantial percentage of arrests may be individuals who reside outside the jurisdiction. These could include low-population jurisdictions where many arrests involve vehicles on a major thruway, urban jurisdictions where a significant fraction of arrestees live in adjacent jurisdictions but travel back and forth, or other patterns. A significant mismatch between the offender and resident populations could impact the metric, irrespective of particular policing practices, as a result of the comparison to the foreign-born *resident* population of the jurisdiction.

4. This metric could be skewed in jurisdictions that experienced a significant recent change in the foreign-born population that was not yet captured by the latest available ACS data.

2. Foreign-born crime comparison

Compares alien arrest patterns to underlying crime rates

Once a fingerprint submission is identified as an alien IDENT match, ICE's Law Enforcement Support Center (LESC) reviews additional databases to determine the individual's criminal history, for purposes of resource prioritization. The LESC flags individuals who have a prior confirmed conviction for an aggravated felony or are known to have just been arrested for an aggravated felony. ("Aggravated felony" is a term of art in immigration law.[1]) We utilize the LESC's limited separation of aggravated felonies from other felonies and misdemeanors for the second data metric; those aliens

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[1] *See* 8 U.S.C. § 1101(a)(43) (defining "aggravated felony" to include a wide range of violent and non-violent crimes).

who have no known prior conviction for, or current arrest for, an aggravated felony are designated "LESC L2&3."

The second data metric compares **the number of IDENT-matched aliens arrested for non-aggravated felonies and misdemeanors (and with no prior conviction for an aggravated felony) to the jurisdiction's overall rate of such arrests, adjusted for the percentage of the jurisdiction's population that is foreign-born**. Patterns showing aliens are arrested at a high rate for minor crimes, relative to their proportion within the population and the underlying crime incidence may warrant further analysis.

$$\textbf{Foreign Born Crime Comparison} = \frac{\text{LESC L2\&L3}}{\frac{1}{4}\text{UCR NonAgg.Fel.Arrests} \times \% \text{ Foreign Born}}$$

For example, suppose in one quarter County A has 50 IDENT matches for lesser crimes by aliens without a known aggravated felony conviction, that it usually has 500 total arrests for lesser crimes in a quarter (2000 in a year), and that its population is 2% foreign-born. So 1 in 10 lesser-crime arrests is of an alien whose fingerprints are in IDENT, even though only 1 in 50 people are foreign-born. This metric would therefore be 5. If in County B, the same rate of 1 in 10 lesser-crime arrests involves an alien, but the underlying population of County B is 10% foreign-born, this metric would be just 1. For counties that rank high with respect to this metric, the rate of alien arrests for crimes other than aggravated felonies appears disproportionate to the underlying population, which could stem from skewed police attention to lesser crimes committed by aliens, or from a variety of other circumstances.

This metric has five important limitations; again, we are taking each of these into account:

1. Although for this metric, we attempt to control for the duplication problem described as limitation (1) in the discussion of the first metric above, that ameliorates but does not eliminate duplication as an issue. Where possible, we reduce the duplication problem for the Foreign Born Crime Comparison by adjusting each jurisdiction's LESC L2&3 number by a duplication multiple (calculated by examining all of the IDENT matches in that jurisdiction in a nine-month period to identify multiple submissions[2]). Most jurisdictions have relatively similar duplication rates, so this adjustment materially affects the relative order of only a small fraction of jurisdictions.

    The duplication rate cannot be calculated for some jurisdictions for technical reasons related to the format in which they submit fingerprints to FBI ("National Fingerprint File" (NFF) states). For those jurisdictions, we adjust by the mean duplication rate from similarly-sized counties.

2. The mobile-population issue, described as limitation (3) of the first metric above.

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[2] The nine-month window for determining when multiple fingerprint submissions are likely to have arisen from a single arrest rather than multiple arrests of the same individual was chosen as a reasonable assumption regarding the length of an arrest cycle. While a different time frame might yield somewhat different duplication results, the range of values is sufficiently small that we believe that the choice of de-duplication interval is not a significant factor in the rankings on this metric.

3. Aligning underlying crime data with the LESC's separation of aggravated felonies from other crimes is imperfect, as "aggravated felony" is not a category used by the UCR. Many offenses tracked by the UCR may or may not qualify as aggravated felonies in particular circumstances, but this metric necessarily makes a categorical distinction among UCR crimes.[3]

4. Not all counties participate in the UCR, and so may not have comparable underlying crime rates for us to review; we use other arrest data, where it is available and comparable to UCR, but some jurisdictions cannot be reviewed with this comparison.

5. The most significant limitation results from LESC's operational goal of responding to each Secure Communities inquiry within four hours, and the fact that the data the LESC receives directly from IDENT/IAFIS interoperability do not include any information on the crime for which the individual was arrested and fingerprinted. While the LESC attempts to obtain both prior criminal history and information on the instant arrest, its ability to obtain instant-arrest information in its limited window of time is highly constrained. As a result, some alien IDENT matches that result from an arrest for an aggravated felony are not categorized as Level 1 leads by the LESC (though ICE field agents escalate a case's priority once they obtain information on an aggravated felony arrest). And, conversely, some aliens are classified as Level 1 leads by LESC not because of their instant arrest, but because of a known *prior* conviction for an aggravated felony. ICE and the FBI are working on advanced software and data-flow procedures that will eventually enable the LESC to have closer to real-time information on the severity of instant arrests, but until that technology is available—in a few years—LESC data is of real but limited value in determining the *kinds* of arrests law enforcement agencies are making. ICE has, however, undertaken a short-term study to better estimate the proportion of aliens categorized as LESC L1 on each applicable basis. When that study is complete, we may be able to improve this metric.

3. Identified alien crime severity comparison

Compares the severity of offenses among IDENT-identified arrested aliens with the severity among the entire population of arrestees

The third metric compares the relative incidence of lesser crimes as a fraction of all crimes among the general population and the alien population. Like the second metric, the third metric utilizes the LESC's separation of alien IDENT matches with immediate arrests for, or readily available confirmed convictions for, aggravated felonies, from the other alien IDENT matches.

We compare **the ratio of less-serious crimes to all arrests in the IDENT matches to the comparable ratio in general crime data**.

$$\textbf{Identified Alien Crime Severity Comparison} = \frac{\left(\frac{\text{LESC L2\&L3}}{\text{IDENT Matches}}\right)}{\left(\frac{\text{UCR NonAgg.Fel.Arrests}}{\text{All UCR Arrests}}\right)}$$

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[3] UCR categories DRGSALE, MURDER, RAPE, AGASSLT, ARSON, BURGLRY, ROBBERY, EMBEZL, and WEAPONS are mapped as aggravated felonies, and all other categories to other crimes.

Adding to the same County A figures used above, suppose County A has 50 IDENT matches for lesser crimes (by aliens without a prior aggravated felony conviction), out of 75 total IDENT matches. Among *all* arrests, as reported to the UCR, it has 500 total arrests for lesser crimes, out of 750 total crimes, in a year. Following the formula above, this metric would be 1. If County B has all the same figures, except that the total UCR arrests were 1000, this metric would be 1.33. If a county has a high rank on this metric, it could suggest that enforcement among aliens is particularly concentrated on minor crimes—arrests for which are more often (but not always) discretionary, and therefore the areas in which bias might occur. Again, however, there are many reasons for such a result, and the purpose of this tool is to identify jurisdictions for further analysis.

The formula used for this comparison has the advantage that it should not be affected by duplicate submissions of fingerprints at various points in the criminal justice process. Otherwise, however, it shares the limitations discussed for the second metric. Moreover, because of its sensitivity to small numbers, we only calculate this number for jurisdictions with at least 5 IDENT matches in the quarter. This metric is principally used to rank jurisdictions that have been identified through one of the prior two metrics; a jurisdiction that ranks highly only on this metric is unlikely to be a primary focus for further analysis at this time.

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It is important to remember that *ranking* jurisdictions, which focuses on the differences among them, should compensate for some of the data issues described above. In addition, the monitoring we intend is not akin to an indictment or other declaration of wrongdoing but rather simply a nomination for additional analysis. To date, ICE and CRCL have been through two quarters of data. We used data from the second quarter of FY 2011 to refine the metrics; the third quarter of FY 2011 allowed the first use of the statistical monitoring methodology. We have begun follow-up steps (explained in section B below).

4. Sample Data and Calculations

The data and metrics are contained in a flat spreadsheet with one record per jurisdiction (county or county-equivalent). The sample data below illustrate the fields involved in the monitoring metrics described in this document. (The database also contains additional information on ICE activity.)

Table 1. Sample data used for Secure Communities quarterly reviews
Sample data: These are not real counties.

State	County	Population	County Size	% Foreign-born Residents	Est. Agg. Felony Arrests	Est. Lesser Crime Arrests	Duplication Multiplier	Fingerprint Submissions (quarter)	LESC Level 1 (Agg. Felony) Matches (quarter)	LESC Level 2&3 (Other Felony/ Misdemeanor) Matches (quarter)
XX	Smith	404,922	large	30.07%	2,316	12,409	1.310	4,524	48	533
XY	Ng	332,059	large	10.09%	1,719	8,755	1.662	2,899	11	70
YZ	Greene	177,685	large	17.77%	446	4,272	1.122	1,723	11	109

These three large (and fictional) counties (population over 100,000) have certain similarities, but enough dissimilarities to be difficult to compare directly: Smith is twice as large as Greene, while Ng falls in the middle; but Smith has three times, and Greene nearly twice, the foreign-born population of Ng. Smith has the highest overall crime rate (36 crimes per thousand population), and Greene both the lowest (26 crimes per thousand) and the least serious (10% of crimes are aggravated felonies, compared to about 16% in Smith and Ng). But it is difficult to determine, just from the raw data, how the jurisdictions compare with respect to indicia of policing practices disproportionately directed at minor crimes by foreign-born persons.

We can then compute the metrics:

Table 2. Sample Secure Communities monitoring metrics
Sample data: These are not real counties.

County	(1) Foreign-born Arrestee Comparison (quarter)	Foreign-born Crime Comparison, Raw (quarter)	(2) Foreign-born Crime Comparison, Deduplicated (quarter)	(3) Identified Alien Crime Severity Comparison
Smith	0.427	0.571	0.436	1.1
Ng	0.277	0.317	0.191	1.04
Greene	0.392	0.574	0.512	1.1

Smith ranks highest on metric 1, while Greene ranks highest on metric 2. Smith and Greene rank comparably on metric 3. Our attention should focus on those two counties; metric 3 provides additional assurance that Ng is of less concern.

5. Improvements Underway

Better real-time arrest data. ICE does not currently receive analyzable data on the nature of the arrest for which a fingerprint submission is being made. In other words, we do not know in real time whether a submission is based on a traffic offense or a violent crime. Accordingly, we rely on follow-up ICE investigations to make that data available in ICE record systems. Improvements to ICE systems are now underway that will significantly improve real-time data on the crime prompting an arrest; our statistical detection tools will improve once that software, part of what ICE terms the Automated Threat Prioritization initiative, is in place, and the data passed to ICE through interoperability includes a data field on the offense prompting the instant arrest.

De-duplication. As noted above, one possible reason for anomalous arrests rates of certain types could be a local practice of running fingerprints at multiple stages of criminal justice processing. Systematically re-printing individuals would increase biometric submissions, relative to a jurisdiction that only submits prints once per arrestee, without reflecting any meaningful enforcement difference. Pursuing this issue requires cooperation and assistance from US-VISIT, the custodian of the IDENT database, as well as FBI, the custodian of the IAFIS database. That work is well underway.

B. Statistical analysis

Many of the statistical anomalies identified in the statistical monitoring procedure likely reflect local crime patterns and legitimate law-enforcement practices. Further statistical analysis will need to be conducted to determine how to account for those anomalous patterns. For example, if a state LEA's mission primarily involves highway patrol, it should have a high rate of traffic stops relative to other arrests. Again, these investigations will be conducted with ICE's resources and assisted by an expert criminology statistician retained by CRCL.

Because research will require utilization of data collected by local or state authorities, each of whom have their own reporting requirements as to extent, frequency, data fields included, and the like,[4] it will need to be individualized for each jurisdiction. Because it is local, statistical analysis necessarily relies on a mosaic of data sources and a research design particularized to the enforcement and information environment. The primary goal for this research will be to obtain data to provide the most accurate possible assessment of LEA policing practice. We anticipate that in some cases data will be easily obtained in a form that is easily analyzed. In other situations it may be more expedient to move to a direct investigation simply because the data collection effort would take more resources than investigation itself.

ICE and CRCL are committed to the following steps:

- Compare current-quarter statistical metrics to results in other quarters
- Review ICE administrative arrest and removal statistics from the jurisdiction
- Identify any weaknesses in existing data (low or missing coverage for overall crime statistics)
- Conduct further database research on the jurisdiction, including:
    - Additional data on citizenship, other characteristics of the foreign-born population
    - Additional arrest and crime data, where available, including the FBI National Incident-Based Reporting System (NIBRS)
- For agencies that also participate in ICE's 287(g) program, review additional data submitted through that program
- ICE ERO contacts to the local Field Office to identify possible causes of the statistical anomaly, potentially including:
    - Changes in local law, policy, or political/law enforcement leadership
    - Demographic characteristics or changes not captured by Census Bureau data
    - Geographic features (proximity to other population centers, major highways, etc.)
    - Local data discovery and data entry practices
    - Perceptions of local policing practices, particularly with respect to minor crimes and with respect to racial/ethnic minorities

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[4] For example, Florida does not fully participate in the FBI's UCR program, but provides very similar arrest data through its own Statistical Analysis Center. *See* Florida Department of Law Enforcement: Florida Statistical Analysis Center: Uniform Crime Reports, *at* http://www.fdle.state.fl.us/Content/getdoc/a324add7-5dd6-4201-9696-93bfd76bc36c/UCR-Home.aspx (last visited July 18, 2011).

- Review arrest and conviction history of individuals identified through Secure Communities, particularly those identified on the basis of a misdemeanor arrest
- Review news accounts, nongovernmental organization reports, and any complaints submitted to ICE or CRCL concerning law enforcement practices in the jurisdiction
- Determine relevant DHS jurisdiction under Title VI of the Civil Rights Act of 1964
- Notify Department of Justice that the jurisdiction is undergoing analysis

C. Direct investigation

Where statistical analysis leaves open questions, or where ICE or CRCL have received a complaint meriting investigation, we will move to direct, non-statistical investigation.[5] The investigations will involve, as appropriate for each situation:

- Interviews with complainants;
- Cooperation with ICE, especially field office personnel, to understand jurisdiction- and LEA-specific factors;
- Requests for production of documents from the LEA being investigated (as well as, perhaps, related LEAs—such as a sheriff's department that runs the jail used by an LEA under investigation);
- Determination of DHS's Title VI jurisdiction over the subject LEA;
- Notification of the Department of Justice, Civil Rights Division; and
- Interviews, site visits, and other in-person investigative methods.

We anticipate that law enforcement agencies will voluntarily cooperate with our investigations. If necessary, additional tools exist for securing that may facilitate cooperation, including, potentially, adjustments to Secure Communities protocols for the relevant jurisdiction and using DHS's Title VI authority if appropriate.

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[5] *See* Memorandum for All ICE and CRCL Personnel from Margo Schlanger, Officer for Civil Rights and Civil Liberties, and Gary Mead, Executive Associate Director, ICE, regarding Secure Communities Complaints Involving State or Local Law Enforcement Agencies (June 14, 2011), *at* http://www.ice.gov/doclib/secure-communities/pdf/complaintprotocol.pdf.