Inroads to Reducing Federal Recidivism

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While I hope you enjoy all the interesting articles in this edition of Federal Probation, *I think the lead article authored by my colleague Laura Baber is of particular significance. It's not a routine report on recidivism by persons under federal post-conviction supervision: It's a report that tracks what is probably the largest cohort ever studied, hundreds of thousands of people spread out in every state in the union. They have been followed for years, during and after supervision, and the concept of recidivism was looked at from a variety of perspectives: felony rearrest, nature of rearrest, revocation, and "total failure." For the first time, we are also able to compare outcomes for different subcohorts, reliably controlling for changing risk levels and criminogenic profiles over time. Empirical data allow us to project future recidivism rates and then study causes if actual results vary.*

Another interesting aspect of the article is that it reveals that recidivism, again controlling for the

nature of the supervision population, is actually declining. For someone who began his career in community corrections in the 1980s, I can't tell you how amazing that is. While the decline is probably influenced by many factors, it has coincided with the federal probation and pretrial services system's implementation of advanced actuarial assessment devices to help officers stratify their caseloads and prioritize issues within cases. Simultaneously, the system has expanded its training programs pertaining to evidence-based supervision practices. And the system has began re-examining its key policies using the scientific method. For more information on these initiatives, please read earlier editions of Federal Probation, *including the special issues discussing PTRA, PCRA, STARR, and the system's Early Termination Policy.*

Perhaps most exciting of all is that this may be just the beginning. The system's greatest asset, its talented and experienced staff, remains intact. The federal judiciary, with

funding support from Congress, plans to enhance its risk assessment devices, expand its training programs, and increase other useful resources for officers. The Judicial Conference of the United States' Committee on Criminal Law, which is essentially the system's Board of Directors, remains committed to the system becoming as empirical and outcome-based as possible—this while the system gears up for a new strategic plan, building on the success of the last one discussed in the September 2015 issue of Federal Probation. *With this kind of effort, and a little luck, recidivism will decline further, noncompliance—when it does occur–will be dealt with even more quickly and more effectively, and the community and the interests of justice will be served better still.*

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INTEGRAL TO THE to the federal probation and pretrial services system's long-term strategic commitment to be results-driven, the Probation and Pretrial Services Office (PPSO) of the Administrative Office of the U.S. Courts (AO) continues its pursuit of understanding how well it is meeting its mission of protection of the community in the context of post-conviction supervision. Studies conducted over the past decade suggest that federal probation is indeed making inroads toward one of the federal criminal justice system's most intractable problems: return to crime (what we in the community corrections field refer to broadly as "recidivism") by those who have served

a term of supervised release[1] or probation.[2] Measurable decreases in federal recidivism coincide with concerted efforts to bring to life state-of-the-art evidence-based supervision

practices into the federal system, including the development and wide-scale implementation of a dynamic risk assessment instrument, emphasis on targeting person-specific criminogenic needs and barriers to success, and training on core correctional practices.

This results-based focus is framed within the Judiciary's broad-scale system-wide objective articulated by the leaders of the court system at the beginning of the most recent century. During key strategic planning sessions, leaders of our system reached widespread consensus that Congress and the public will hold the federal justice system increasingly accountable for outcomes, and that we must

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[1] Under 18 USC 3583, supervised release is a sentence to a term of community supervision to follow a period of imprisonment. It is available for all offenders who committed their crimes on or after November 1, 1987, the effective date of the Sentencing Reform Act.

[2] Authorized under 18 USC § 3561. The Sentencing Reform Act, applicable to offenders who committed their offenses on or after November 1, 1987, made probation a sentence in its own right rather than the means by which the imposition or execution of a sentence to imprisonment is suspended.

rise to that challenge by clearly articulating desired outcomes, rigorously measuring progress, and communicating results with fidelity. Since then, the system has articulated the system's goals in national policies, promoted a common understanding of those goals, operationalized measures that speak directly to those goals, and built an infrastructure that promotes systematic measurement of results (Hughes, 2008).

By 2010, we had laid a foundation for independently measuring the system's most salient outcome—protection of the community through reduced recidivism by those clients our officers supervise on post-conviction supervision. We were able to learn definitively for the first time the extent to which persons under federal supervision are arrested for new criminal activity, both while on supervision and for a follow-up period after supervision ended.

In formal consultation with experts in criminology, PPSO adopted rearrest as a primary outcome measure because (1) unlike convictions, arrests are more available in automated criminal history records; and (2) unlike revocations, arrests are not subject to court culture and probation officer influence, and as such, are a more independent measure (Hughes, 2008). This is significant because it allows us to measure outcomes using data obtained from official records that are not subject to interpretation or bias that may be inherent in self-reported data. Furthermore, these independently-derived data permit outside entities to reproduce findings (assuming those entities have obtained criminal history data in accordance with the requirements of Title 28 of the Code of Federal Regulations (CFR) Part 22).

A secondary measure, revocation of supervision, measures the extent to which post-conviction supervision is meeting another of its stated goals: successful completion of supervision for all offenders.[3] It is important to point out that while successful completion is a goal in all cases, frequently this goal is eclipsed by federal probation's statutory duty to protect the community. When officers detect evidence of behavior that, if left unchecked, may result in harm to the community, they must report such behavior to the judicial officer, who, depending on the totality of the circumstances, may revoke the supervisee's term of supervision. Later in this article, we discuss a newly constructed measure of "total failure," which comprises (mutually

exclusively) both rearrests and revocations. We use the term "failure" with a recognition that revocations themselves may not be a failure–in the truest sense of the word–at all.

In the formative stages of this effort, the AO, in partnership with Abt Associates, Inc., developed a method for assembling and matching criminal rap-sheet data to clients' records to measure the rate at which supervisees were rearrested for new criminal activity. In 2010, the AO released the results of a study that examined recidivism using the system's agreed-upon definition—rearrest for new criminal activity (Baber, 2010). In this study, the AO learned that about 23 percent of persons under supervision for three years between the years October 1, 2004, and August 13, 2009, were rearrested for a new criminal offense, and about 18 percent were rearrested within three years of supervision ending (Baber, 2010).

Since that time, the AO has generated annual recidivism reports for each district and posts those statistics on its Decision Support System (DSS) so that they are viewable by probation office staff at all levels. Each fiscal year, the received cohort for that year is added and rearrests that have occurred from the prior year are included. Those reports display for each district annual three-year rearrest and revocation rates for each available entry cohort beginning in fiscal year 2005.

Additionally, the percentage of arrests is categorized into broad offense types: violence, property, drugs, immigration, escape/obstruction, firearms, sex offenses, and public order.[4] For context, individual district metrics are displayed in conjunction with national and circuit-level statistics. At each level, changes over time in recidivism rates for each entry cohort are displayed, along with the rates for each risk level, as measured by federal probation's Post Conviction Risk Assessment (PCRA). The PCRA classifies persons into four risk categories: Low, Low/Moderate, Moderate, and High.[5]

Recidivism Statistics Including the FY 2014 Received Cohort

More recently, in addition to the incorporation of during and post-supervision recidivism statistics for the most recent cohort of persons received (fiscal year 2014), we made other material improvements that advance our knowledge about the nature and timing of recidivism in the federal system. These improvements include: (1) rearrest and revocation rates that are adjusted for inherent risk of the offender population; (2) statistics that report total failure rate for persons under supervision, i.e., one that combines arrest and revocation rates; (3) those same statistics at additional follow-up intervals, and (4) an additional statistic that reports recidivism measures expressed as a percentage of cases under supervision for the fiscal year. Rates that are adjusted for risk of the population are particularly important because they demonstrate that, despite a steady increase in supervisee risk profile, recidivism defined by rearrest, revocation, or a combination of the two measures, is decreasing. This result is highly encouraging for stakeholders and policymakers alike, as it suggests that recent advances in federal supervision practices are producing more favorable outcomes. These improved outcomes persist despite austere budget climates for some of the years examined in this study.

This article, based on information provided by Abt Associates under contract with the AO, describes the advances in recidivism knowledge and recent rearrest data.

Data

The study cohort includes a total of 454,223 persons serving active supervision terms of probation (19 percent) and supervised release (81 percent) that commenced between October 1, 2004, and September 30, 2014. A term consists of a continuous period of supervision, including transfers of supervision (with or without jurisdiction) from one judicial district to another. Data were drawn from the Probation and Pretrial Services Automated Case Tracking System (PACTS) of December 1, 2014. Sixty-seven percent of the supervision terms were closed as of this date.

Supervision data were merged with arrest data for each supervisee in the analysis. Arrest data were drawn using an automated process that feeds en masse the identifiers for the persons supervised and retrieves "rap sheets" from the judiciary's ACCESS to Law Enforcement System (ATLAS). Rap sheets from ATLAS were parsed and converted

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[3] The Guide to Judiciary Policies, Part E: Supervision of Federal Offenders (Monograph 109).

[4] Arrest strings are extracted from rap sheets and converted into the National Crime Information Center (NCIC) codes. The NCIC codes were then collapsed into the broader offense categories used by the AOUSC.

[5] An Overview of the Federal Post Conviction Risk Assessment, September 2011, pg. 9. http://www.uscourts.gov/statistics-reports/publications/post conviction risk assessment

TABLE 1.
Number of Offenders in Analysis by Statistic Produced

Duration	Rearrests During Supervision	Rearrests Post-Supervision	Revocations	Failures for Any Reason
3	447,269		447,291	447,291
6	431,227		431,295	431,295
12	375,298	193,134	375,390	375,390
18	333,293		331,511	333,511
24	296,415	158,860	296,756	296,756
36	195,405	126,833	195,974	195,974
48	64,307		64,611	64,611
60	35,112		35,372	35,372

TABLE 2.
Arrest Rates for Serious Offenses While On Supervision, by Duration

Duration (in Months)	N	Percent Arrested
3	447,269	2.8%
6	431,227	5.2%
12	375,298	9.3%
18	333,293	12.7%
24	296,415	15.6%
36	195,405	20.8%
48	64,307	24.5%
60	35,112	27.7%

to the following offense categories: violent, property, drug, sex offense, firearms, escape/obstruction, public order, immigration, and other offenses (Baber, 2010). For purposes of this study, arrests are defined as the first arrest for a serious offense[6] that occurs for a supervisee. Minor offenses are excluded from the statistics. because there exists a great deal of variance among states in reporting these offenses to state repositories. Consequently, offenses against public peace, invasion of privacy and prostitution, obstruction of justice, liquor law violations, and traffic offenses were excluded. Restricting the statistics to major offenses mitigates the possibility that differences in reporting practices by states or over time influence the arrest rates. Exclusion of minor offenses does not materially under-report arrest rates (Baber, 2010).

Table 1 shows that the persons entering into the underlying calculations differ across time. For example, when estimating a twelve-month arrest rate, a total of 375,298 persons enter the calculations, but when estimating

a thirty-six-month arrest rate, only 195,405 persons enter the calculations.

An Increasingly Risky Federal Supervision Population

Using the Post Conviction Risk Assessment instrument as its measure, we can see that the persons who enter federal supervision each year are at increased risk to recidivate. Between FY 2005 and FY 2011, the average PCRA score of a newly-received supervisee rose from 5.09 to 6.55, an increase of 1.46 points. Other data support that the federal supervision population is increasing in risk, due certainly in part to more extensive criminal histories of those convicted of federal crimes. As illustration, the criminal history score[7] of defendants who

began supervision in FY 2005 increased from 4.61 to 5.62 in FY 2015.[8]

Rearrests During Supervision

This study examines the first arrest for a serious criminal offense during the period of supervision. Arrest rates are provided for supervisees within 3 months, 6 months, 12 months, 18 months, 24 months, 36 months, 48 months, and 60 months of starting active supervision. To be included in the tabulations for each of these follow-up periods, they had to be sentenced to supervision for at least that time period before the last date they are observed in the data (December 1, 2014). For example, to be in a three-month arrest rate calculation, a supervisee would have had to have completed at least three months of supervision before the last date he or she was observed in the data according to the supervision sentence imposed by the courts, although the supervisee may have been on supervision for less than three months because of a new arrest or revocation. Similarly, to be included in the six-month rates, they would have had to have completed at least six months of supervision before the last date they were observed in the data, except for the occurrence of a new arrest or revocation, and so on. Arrests are cumulative over the follow-up periods. For example, a supervisee was sentenced to six months of supervision and he was arrested after three months. His arrest is included in both the three-month and six-month arrest statistics. If another supervisee was ordered to three months of supervision and was arrested after one-month, her arrest is only included in the three-month arrest statistics but not in the six-month arrest statistic.

Few persons were rearrested for a serious offense within the first six months of starting supervision (about 5 percent within six months and 3 percent within three months); less than 10 percent were rearrested within a year; 21 percent were rearrested within three years; and less than 30 percent have a rearrest within five years (27.7 percent). Table 2 shows the rearrest rates for each of the time periods.

Rearrests Post Supervision

We also examine post supervision recidivism, which we define as the first arrest for a major offense following the successful completion of supervision, i.e., their term expired or the supervision term ended because the court granted early termination.

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[6] Major offenses are felony offenses or felony-equivalent offenses. Where the arrest data did not classify the level of offense, imputations were made based on the offense as categorized. Offenses that were classified as felonies 75 percent or more of the time are considered felonies.

[7] According to the Sentencing Guidelines promulgated by the United States Sentencing Commission, criminal history forms the horizontal axis of the sentencing table. The table divides criminal history into categories I (the lowest) to VI (the highest). The appropriate category is determined by assigning points to prior sentences and juvenile adjudications based on the guidelines and commentary in Chapter Four, Part A.The guidelines in Chapter Four, Part 21 A, translate the defendant's prior record into one of these categories by assigning points for prior sentences and juvenile adjudications.

[8] The AOUSC's Probation and Pretrial Services Decision Support System.

TABLE 3.
Arrest Rates for Serious Offenses Post Supervision, by Duration

Duration (in Months)	N	Percent Arrested
12	193,134	6.5%
24	158,860	11.4%
36	126,833	15.0%

TABLE 4.
Revocation Rates While On Supervision, by Duration

Duration (months)	N	All	New Crime	Technical
3	447,291	1.0%	1.0%	0.9%
6	431,295	3.7%	0.8%	2.9%
12	375,390	8.7%	2.8%	5.9%
18	333,511	13.1%	5.1%	8.0%
24	296,756	16.9%	7.3%	9.6%
36	195,974	21.9%	11.1%	10.8%
48	64,611	23.0%	12.5%	10.5%
60	35,372	26.0%	14.8%	11.2%

TABLE 5.
Total Failures (Rearrests and Revocations) While On Supervision, by Duration

Duration (in Months)	N	Percentage
3	447,291	3.9%
6	431,295	8.6%
12	375,390	16.2%
18	333,511	22.1%
24	296,756	26.9%
36	195,974	33.7%
48	64,611	37.1%
60	35,372	41.1%

Forty nine percent of persons in the analysis cohort completed their supervision terms successfully. Twenty-one percent had their supervision terms revoked, 27 percent are still under supervision, and the remaining 3 percent ended supervision due to death or other miscellaneous reasons. (Data not shown in tables.) Of those who successfully completed supervision, the length of time at risk to recidivate varies, ranging from less than a month for some persons to over 10 years for others (i.e., the earliest successful completion of supervision was late October 2004). The statistics include only persons for whom we are able to observe arrest outcomes for at least one year post supervision (i.e., those received into supervision during the FY2014 cohort completed supervision before December 1, 2014).

We provide separate tabulations for persons for whom supervision was completed such that a supervisee had at least one, two, and three years of post supervision follow up. Arrests are cumulative over the one, two, and three years of follow up. Rearrest rates are based on the three years of post supervision follow up.

As Table 3 depicts, within the first year after supervision ends, only 6.5 percent of supervisees are rearrested for a major offense. By the second year, the rate nearly doubles to 11.4 percent, and by the end of the third year, 15 percent of persons had incurred a new major arrest. It is important to note that these statistics presumably reflect the group of persons who had successfully completed their term of supervision, and thereby were not serving terms of incarceration due to revocation, and

thus are the most likely to remain arrest-free after the term of supervision.

Revocation of Supervision

Persons may have their supervision terms revoked on the basis of new criminal conduct or for a technical violation of the conditions of supervision, or both. (PACTS data entry procedures instruct users to code the revocation as new criminal conduct when this scenario occurs.) In this article, we examine overall revocation rates, i.e., revocations for any reason, and revocation rates separately for new criminal behavior and technical violations. It is important to remember that in cases where violation of the conditions of supervision is the basis for revocation, often multiple violations and corrective attempts by officers have led to that point. In other words, revocation, while short of the stated aspirational goal of supervision, is often the final effort by the court to disrupt a supervisee's escalating noncompliant behavior that will lead to crime and more harm to the community (Rowland, September 2013).

Similar to tabulations on rearrests during supervision, the revocation rates are provided for persons within 3 months, 6 months, 12 months, 18 months, 24 months, 36 months, 48 months, and 60 months of commencing supervision. Rules for inclusion in the tabulations for each time period are identical to those for rearrests.

Table 4 shows the percentage of supervision terms revoked during each interval and the percentage of revocations that were for new criminal behavior and technical violations. The data reveal that few supervisees (4.7 percent) are revoked within the first six months of supervision and that a greater percentage of those revocations are for technical violations. However, by 12 months of supervision, rates nearly doubled (7.7 percent) compared to those in the first 6 months. For subsequent time intervals of 36 months and beyond, overall revocation rates appear to stabilize. By the 36th month of supervision, revocations for new crimes exceed those for technical violations. Within five years, almost 15 percent of supervisees are revoked for new criminal behavior, while 11 percent are revoked for technical violations.

Failures for Any Reason

An enhancement of our recidivism tracking is the construction of a measure that reflects a "total failure" defined as either an arrest or revocation of supervision. Because
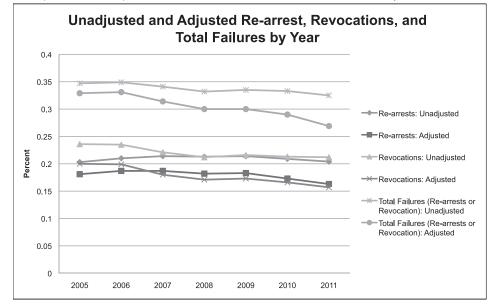
TABLE 6.
Unadjusted and Adjusted Rearrests, Revocations, and Total Failures by Year

Fiscal Year	Rearrests		Revocations		Total Failures (Rearrests or Revocation)	
	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
2005	20.3%	18.1%	23.6%	20.0%	34.7%	32.9%
2006	21.0%	18.7%	23.5%	19.9%	34.9%	33.1%
2007	21.4%	18.7%	22.1%	18.0%	34.1%	31.4%
2008	21.3%	18.2%	21.2%	17.1%	33.2%	30.0%
2009	21.4%	18.3%	21.6%	17.3%	33.5%	30.0%
2010	20.9%	17.3%	21.3%	16.6%	33.3%	29.0%
2011	20.4%	16.3%	21.2%	15.7%	32.5%	26.9%

GRAPH 1.
Unadjusted and Adjusted Rearrest, Revocation, and Total Failures by Year

characteristics, including age, race, sex, risk level, and instant offense type.

Unadjusted Recidivism Measures

Table 6 depicts three-year rearrest, revocation, and total failure rates for fiscal years 2005 to 2011, the most recent year in which it is possible to chart three years of observation. The table presents both unadjusted and adjusted rates. The table clearly indicates that adjusted for risk and changing population, recidivism–by all measures–is declining. Unadjusted, rearrest rates have remained steady at 20.3 percent and 20.4 percent respectively; revocation rates have declined from 23.6 percent to 21.2 percent, and total failures have declined from 34.7 percent to 32.5 percent for persons entering supervision from 2005 compared to 2011.

Adjusted Recidivism Measures

More compelling, however, is an examination of these rates in their adjusted form. As such, rearrest rates have declined nearly 2 percentage points, from 18.1 percent to 16.3 percent respectively. Adjusted revocation rates show a sharper decline of 4.3 percentage points, from 20.0 percent to 15.7 percent respectively.

The combined measure of recidivism, one that depicts the total failure rates by tabulating the first of revocation or rearrest, illustrates the downward trend most dramatically. From cohorts entering supervision in 2005 compared to those entering in 2011, the adjusted failure rates have decreased 6 percentage points, an 18 percent reduction. For the 2005 cohort, total adjusted failure rates were 32.9 percent; for 2011, the rates were 26.9 percent. Figure 1 displays a graph of adjusted and unadjusted rates over time.

Stock Measure of Recidivism

Construction of additional measures of recidivism represents yet another step in further refining our results-based framework for post-conviction supervision. These new measures represent the percentage of persons under supervision at any time during the fiscal year who were rearrested, revoked, or who failed (either revoked or rearrested) respectively. We call these "stock" measures, as they indicate recidivism rates expressed as a percentage of persons under supervision during the time frame. This measure was constructed as a more straightforward presentation for stakeholders to understand how outcomes are trending over time for the entire supervision population, regardless of when the person
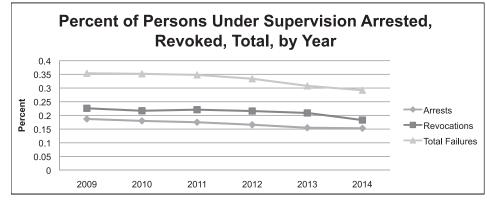
a supervisee can be both rearrested and later revoked for new criminal behavior or for violations of supervision conditions, rearrest rates and revocation rates cannot be summed together. Instead these events must be combined into a single measure: failure for any reason. This is an important advance in outcome tracking for post-conviction supervision, as this measure captures the totality of failures on supervision.

We defined failure for any reason as a failure under supervision for either a rearrest for a major offense or a revocation, whichever occurs first. Time until failure is defined as the time from the start of supervision to the first rearrest or revocation of supervision, whichever occurs first.

As Table 5 shows, for all persons in the cohort, approximately one-third (33.7 percent) will be arrested or revoked within three years of commencing supervision, and

approximately two-fifths (41.1 percent) are arrested or revoked within five years of commencing supervision.

Adjusted Recidivism Measures

Another significant improvement to our recidivism tracking is the adjustment for the changing composition of supervisees, thus making the analysis of changes over time and district-by-district comparisons more meaningful.

Compared to persons who began their supervision terms a decade ago, the federal offender begins his supervision term at increased risk to recidivate. Over time, this change has caused gradual upward pressure on rearrest and revocation rates. Statistics that are adjusted for risk provide standardized comparisons over time and among districts. Using non-linear logistic regression techniques, the study team estimates and reports adjusted rates that control for person-level

TABLE 7.

Percentage of Persons Under Supervision Arrested by Year

Fiscal Year	Arrests	Revocations	Total Failures
2009	18.7%	22.6%	35.4%
2010	18.0%	21.7%	35.2%
2011	17.5%	22.1%	34.8%
2012	16.6%	21.6%	33.4%
2013	15.5%	20.9%	30.8%
2014	15.3%	18.3%	29.2%

GRAPH 2.

Unadjusted and Adjusted Rearrest, Revocation, and Total Failures by Year

Percent of Persons Under Supervision Arrested, Revoked, Total, by Year

entered or exited supervision. Rates of entry and exit are important because persons in the early years of their supervision terms are more likely to fail than those who have survived to the latter years. For illustration, as Table 5 indicates, more than half of the five-year total failures (41.1 percent) have occurred within the first 18 months of supervision (22.1 percent). The stock measure adjusts for the time under supervision, as well as the change in risk profile (using the same methodology as the adjusted rearrest, revocation, and total failure rates reported here). Because the entire study cohort (fiscal years 2005 to 2014) is constructed based on the year in which the person began supervision, we had an insufficient complement of "under supervision" persons for the early years. Therefore, we begin presenting statistics for persons under supervision beginning in 2009.

These statistics, shown in Table 7, show a pattern similar to the ones exhibited by measures stratified by the years of entry onto supervision that were discussed earlier in this article. For example in 2009, 18.7 percent of persons under supervision that year were rearrested for a major offense. By 2014, the latest year on which we have data, that rate had dropped to 15.3 percent. Similarly, in 2014, 18.3 percent of persons were revoked during the year, down from 22.6 percent in 2009. Total failures that occurred during those time frames show a sharp decline similar to the entry cohort statistics. The percentage of persons arrested or revoked in 2009 was at 35.4 percent, which is 6 percentage points higher than in fiscal year 2014. Graph 2 shows these statistics charted over the time periods.

Conclusion

The information presented in this article demonstrates that, controlling for risk of the population, both rearrest and revocation rates are decreasing for the system as a whole. This is very good news indeed, as it suggests that despite the increase in risk of the federal post-conviction supervision population and several years of austere budgets, probation officers are improving their abilities to manage risk and provide rehabilitative interventions. As a system we have made considerable investment in evidence-based supervision practices (EBP) through training and reinforcement of the Risk-Need-Responsivity (RNR) principles of EBP. These results suggest that those investments may be beginning to reap dividends in terms of community safety.

As a system, we have also made substantial progress in our ability to measure and report our outcomes. To date, with over 450,000 persons in our recidivism data file, we have amassed the largest-known recidivism data file in existence. But we have only scratched the proverbial surface. As a system, we must sustain for the long haul commitment to our mission and carefully watch our progress. Careful watching entails that we continue to build upon our results-based framework.