Methodology for FECA Improper Payment Rate Estimation

November 4, 2014

I. Background/Purpose

The Improper Payments Elimination and Recovery Act Requirement

In January 2010 the U.S. Congress enacted the Improper Payments Elimination and Recovery Act (IPERA). That act amends the Improper Payments Information Act of 2002 and requires Federal agencies to take actions to prevent the loss of billions in taxpayer dollars due to improper payments. The IPERA definition of "improper payment" (IP) means any payment that should not have been made or that was made in an incorrect amount including any payment to an ineligible recipient, for an ineligible good or service, duplicate payment, or payment for a good or service not received. IPERA requires that:

- Agencies must identify programs and activities that may be susceptible to significant IPs.
- Reviews must be conducted every three fiscal years after FY2010 for non-risk susceptible programs.
- Agencies shall produce a statistically valid estimate of their respective IP rates.
- Sample sizes used for IP rate estimation must be sufficient to estimate with a 90% confidence interval with a precision of 2.5% (or alternatively, a 95% confidence interval with a precision of 3%).

Congress amended IPERA in August 2012, with the Improper Payments Elimination and Recovery Improvement Act (IPERIA). IPERIA strengthens and intensifies the efforts to identify, prevent and recover improper payments.

The OWCP/FECA Improper Payment Rate Estimation Methodology

The Office of Management and Budget requires federal agencies to reduce improper payments and report annually on their efforts. An improper payment rate would be a key element in annual reports describing efforts to reduce improper payments. This document describes a statistically valid method that OWCP will use to develop annual estimates of the improper payment rate for its Federal Employees' Compensation Act (FECA) program.

II. Characteristics of the FECA Payment Population

About 8.5 million FECA payments totaling roughly 3 billion dollars are attributable to fiscal year 2014. Some of those payments are considered as improper per the IPERA definition. The causes for improper FECA payments include administrative errors, the lack of accurate information upon which to determine benefit eligibility or payment amounts, and fraudulent claims. Previous OWCP internal auditing has shown that the magnitude of improper FECA payments is relatively small. The comprehensive methodology for measuring the FECA IP rate proposed herein will include tools to aid in the elimination of some improper payments in the future.

Although the FECA improper payment rate will be estimated and reported on a fiscal year basis, much of the underlying data and calculations will be done on a chargeback year (CBY) basis. A chargeback year extends from July 1 in a given calendar year through June 30 of the next calendar year (preceding the closest fiscal year by three months). For example, CBY 2014 spans July 1, 2013 through June 30, 2014. Reliance upon the chargeback year helps maintain consistency with other FECA analyses and reports.

III. Approach to Estimating the FY2014 Improper Payment Rate for FECA

The universe of FECA payments consist of compensation payments and medical payments. Compensation payments are those that replace lost wages due to an employee's work related injury. Medical payments are made to cover the expenses of medical services, equipment and supplies incurred from treatment for illness and/or injury sustained while an employee was engaged in job-related activities. In CBY 2014 the number of medical payments accounted for 90% of FECA payments and the remaining 10% were compensation payments. In contrast, the total amount of compensation payments was about 2.02 billion dollars (about 68%); whereas, the total amount for medical payments was 0.95 billion dollars, (about 32%).

OWCP will estimate the FECA IP rate in two components. One component will be the determination of an IP rate for only fraudulent payments (compensation and medical) by three-year averaging of all established fraudulent payments. The other component will use statistical sampling to determine the IP rate for all other FECA payments. Fraudulent payments require special consideration because, unlike other improper payments, there is typically significant passage of time between the occurrence of fraudulent payments and the recognition of those payments as a result of fraud. OWCP does not recognize payments as fraudulent until fraud has been admitted or proven in the judicial system. After the two component rates have been established, an overall IP rate for FECA payments will be developed and reported. Using fiscal year 2014 as an example, the following steps describe the method by which the FECA IP rate will be estimated for a given fiscal year.

Step 1. Determine the total outlay of FECA payments for FY2014.

The universe of FECA payments for CBY2014 consists of all FECA compensation and medical payments that were paid in FY2014. The sum of those payments will serve as the total outlay of FECA payments for IP rate estimation. Data captured for each payment will include the following: FECA case number, date the payment was made, amount of the payment, designation of the payment (compensation or medical), and the type of payment (disability, death benefit, medical bill, etc.)

Step 2. Estimate the IP rate component for FY2014 fraudulent payments.
OWCP considers fraudulent payments to be those payments for which fraud has been admitted or proven in the judicial system. Sources for the identification of fraudulent payments will include:

- Payments identified in the FECA databases as fraudulent,
- Fraudulent payments reported in OIG Audit reports for which there is concurrence between OWCP and OIG regarding the validity and applicability of the reported fraud,
- Other fraudulent payments or payment shares assigned to OWCP through judicial processes,
- Fraudulent payments determined from FECA Savings Cases identified by the OIG.

The fraudulent payment IP rate for a given fiscal year will be determined by averaging the fraudulent payments that are identified in a three year period that commenced four years prior to the fiscal year being investigated. For example, the three year average for FY2013 fraud estimation would be based upon payment data for FYs 2010, 2011 and 2012. Correspondingly, the fraud estimation for FY2014 would be based upon fraud identified for FYs 2011, 2012 & 2013. This three year rolling average approach to assigning fraud payments to specific fiscal years will help mitigate the spikes associated with isolated instances of large fraudulent payments. The IP rate for fraud for a given fiscal year will be determined by dividing the three year average fraud amount by the total outlay of FECA payments for the fiscal year being estimated.

Step 3. Establish criteria for determining if a payment is improper
The pertinent IPERA and IPERIA criteria for improper FECA payments are any payment which:

- Was made in an incorrect amount, or
- Was made to an ineligible recipient, or
- Was for an ineligible good or service, or
- Was for a good or service not received (except where authorized by law), or
- Was a duplicate payment, or
- Does not account for credit for applicable provision of any funding mechanism (contract, grant, lease, etc.).

The criteria above will drive the development of detailed and specific criteria for the evaluation of FECA payments.

Step 4. Determine IP rate component for non-fraud payments by random sampling
The IP rate component for non-fraudulent FECA payments will be determined by random sampling with replacement. The following paragraphs describe the plan for stratification, and replacement for the sampling.

Stratification of FECA payment data.
The following stratification scheme will be used for the random sampling:

FECA Payment Sampling Stratification

Stratum	Population Proportion		Sample Size[1]
	Count	Percent	
Compensation payments	853,442	10.1	504
Medical payments	7,625,165	89.9	504
Total	8,478,576	100	1,008

1. Cochran, W.G., 1963, Sampling Techniques, 2ndEd., Wiley and Sons, Inc. NY

The sample sizes stated here have been selected to assure a 90% confidence interval with a precision of 2.5% and to assure an achievable program objective given the resources available.

As the random sampling is conducted per the stratification stated above, each sampled payment will be closely examined to determine whether or not it was improper. If a sampled payment is found to be improper then the examiner will determine and record the discrepancy amount (i.e., the amount of the payment that was improper), the payment type and the reason that the payment is improper. Recording the payment type and reason the payment was improper may enhance the potential for corrective actions downstream. For periodic payments the discrepancy amount computation would be extended over all discrepancy amounts made for that sequence of payments for the entire fiscal year.

The discrepancy amounts thus found from the sample will be totaled and then projected to a dollar amount that represents the discrepancy amount for the entire population. The IP rate component for non-fraudulent payments would then be the projected discrepancy amount of non-fraud IP payments divided by the total FECA outlay for FY2014 (from Step 1).

Payments to Be Replaced During Sampling
Three types of payments, if drawn during the sampling, will be deleted from the sample and replaced: fraudulent payments, initial payments, and non-imaged payments.

Fraudulent payments will be withdrawn because they would have been accounted for in Step 2.

Initial payments are any of a sequence of periodic payments that are made within the first 90 days of that sequence. Initial payments will be withdrawn because FECA policy requires that timeliness be emphasized above procedural and computational accuracy during the first 90 days of a new periodic payment claim. Within that 90 day period most required procedural and computational adjustments will be made to correct the periodic payments. Initial payments are a small fraction of periodic payments and the amount of payment discrepancy is usually small, so their exclusion from the sample will not have appreciable effect upon the IP rate.

Non-imaged payments are payments made to cases that have not been imaged. Imaged cases are those for which digital images of case information is available. In the interest of efficiency only payments from imaged cases will be examined during the IP rate estimation process. All cases created since October 1, 2000, are imaged cases. Additionally, some cases created prior to October 1, 2000 have also been imaged. We safely assert that more than 83% of current FECA cases are imaged cases. Payments for imaged cases are considered to be typical of the entire universe of FECA payments.

Step 5. Calculate the improper payment rate estimate for FY2014.

From the completion of Steps 1 through 4 above two components of the FECA IP rate will have been established. One component is an estimated IP rate for fraudulent payments which is based upon the population of annual FECA payments. The other component, an IP rate for non-fraudulent FECA payments, is also determined by projecting statistical samples to population proportions. Since both of the component IP rates are derived from a common population, they can be simply added to produce an overall FECA IP rate.

In summary, the FECA IP rate will be produced by:

(1) Per Step 1, establish the population total (PT) of FECA payments for the chargeback year.

PT = Population Total of FECA payments

(2) The IP rate for fraudulent payments is obtained from Step 2 by a three-year average of:

Fraudulent payments for the fiscal year four years prior (FP4),
Fraudulent payments for the fiscal year three years prior (FP3),
Fraudulent payments for the fiscal year two years prior (FP2).

IP rate for fraud (IP_F) is then expressed by:

IP_F = Average (FP4 + FP3 + FP2) / PT

(3) The results of the random sampling described in Step 4 will produce an IP rate proportion for non-fraudulent payments **(IP_N)**.

(4) The FECA improper payment rate will be **IP_F** + **IP_N**

The undersigned attest that this methodology represents a statistically sound means to obtain an Improper Payment Rate for the FECA and that it includes all the requisite components listed in Step 2.2 of the guidance provided in OMB Circular A-123, Appendix C dated October 20, 2014.

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