Federal Student Aid
FY 2018 Non-Statistical Improper Payment Estimation Methodology

Introduction

Simplifying and accelerating access to student aid dollars while minimizing errors and the potential for fraud remains a Department priority. To this end, Federal Student Aid (FSA) management is committed to improper payment prevention, mitigation, and reduction and continues to strengthen improper payment controls, and develop and enhance estimation methodologies and analytics to monitor FSA programs. Accurate improper payment estimation is essential to achieving these objectives and will continue to inform root cause analysis and corrective actions, as described in part in the Fiscal Year (FY) 2018 Annual Financial Report (AFR).

As described in the FY 2014 AFR, the Department obtained approval from Office of Management and Budget (OMB) to use an alternative methodology for estimating improper payments for FSA programs susceptible to significant improper payment risk for FY 2014 and beyond. These methodologies were further refined in each subsequent year. The non-statistical estimation methodology utilized by FSA leverages the substantial investment in its existing internal control framework to include compliance and assessment functions, such as Program Reviews conducted by FSA's Program Compliance School Eligibility Service Group (SESG). The statistical limitations of this estimation methodology include reliance on non-random sampling, and limited sample size. The Department is implementing a statistically valid methodology in FY 2019.

FY 2018 OMB Approval Status and Updates

FSA updated its non-statistical estimation methodology for FY 2018 based on self-identified enhancements. These enhancements include: clarifying that Program Compliance Settlement Agreements may be included in the estimates; and clarifying that if only a Draft Program Review Report (PRR)[1] is issued by the cut-off date for a Focused Review that is focused on potential school/program-level issues only, the PRR should be excluded from the estimates as it can neither identify student-level findings nor confirm school/program-level findings. On August 15, 2018, OMB approved the non-statistical estimation methodology for FY 2018 reporting for all risk-susceptible programs (i.e., the Pell Grant (Pell) Program and Direct Loan (DL) Program).

FSA Programs Susceptible to Significant Improper Payment Risk

In FY 2018, the Pell and DL programs remain the only FSA programs identified as susceptible to significant improper payment risk. A risk assessment was performed on all FSA-managed programs, with the exception of the Pell and DL programs, in FY 2017, as required by the Improper Payments Information Act of 2002 (IPIA), as amended by the Improper Payments Elimination and Recovery Act of 2010 (IPERA), and the Improper Payments Elimination and Recovery Improvement Act of 2012 (IPERIA). In FY 2018, it was confirmed that there are no new FSA-managed programs and there are neither significant changes in legislation nor significant changes in funding to these FSA-managed programs requiring additional risk assessments be performed. As a result, this non-statistical estimation methodology covers the Pell and DL programs only.

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[1] The acronym PRR only refers to DRAFT Program Review Reports. PRRs, FPRDs, and EDLs are all referred to as Program Review Reports.

Non-Statistical Estimation Methodology

The non-statistical estimation methodology described below covers the Pell and DL programs only.

Pell Grant Program

Both the Pell and DL estimation methodologies include evaluation of Program Reviews initiated in FYs 2016, 2017 and 2018 and issued by August 6, 2018 by SESG at a sample of schools for aid received in AY 2015-2016 (i.e., July 1, 2015 to June 30, 2016). SESG conducts approximately 90-290 Program Reviews annually of the approximately 6,000 eligible Title IV schools (i.e., approximately 1.5-4.8% of schools are reviewed). Only a portion of the total Program Reviews performed annually are available for calculating the annual estimation of improper payments, as reports for only a portion of the reviews may be issued at the time of calculation of the improper payment estimates (i.e., not reached the draft program review report stage), and of those draft or final reports that have been issued, only a portion may be applicable to Pell or DL improper payments. For the FY 2018 Pell and DL improper payment estimates, 352 and 343 Program Review Reports were available for inclusion in the sample, respectively. Those reports included in the sample selection for the Pell and DL improper payment estimates represent reports issued by the documentation acceptance cut-off date that include review of Pell and/or DL program payment transactions for the applicable award year.[2] This includes Program Review Reports where the original scope of the review did not relate to the in-scope AY, but subsequently students were reviewed for the in-scope AY and all other attributes are met.[3] Only sampled students reviewed for the in-scope AY are included in the estimation.[4] If only a PRR was issued by the cut-off date for a Focused Review that is focused on potential School- and/or Program-level improper payments only, the PRR was excluded from the estimates as it can neither identify student-level improper payments nor confirm School- and/or Program-level improper payments.

SESG may also identify improper payments via issuance of a Settlement Agreement rather than a Program Review Report. Program Compliance Settlement Agreements are treated like Final Program Review Determinations and Final Expedited Determination Letters for purposes of calculating the improper payment estimates. Please refer to the Final Program Review Determinations and Final Expedited Determination Letters references contained within this estimation methodology for details of how Settlement Agreements are included in the estimates.

Pell Grant Program Sampling				
Payment Type	**Sampling Methodology**	**Extrapolation Methodology**	**Estimated Number of Grant Recipients**[5]	**Number of Institutions**[6]
Originations	Risk-Based	Two-Stage Ratio Estimator	7,658,609	5,396

Per SESG Program Review Procedures, Program Reviews can be initiated by FSA management as a result of one or more of the following:

- Compliance Initiatives / Management Mandates
- Referrals or Complaints
- Comprehensive Compliance Review (CCR)
- Self-Reported Violations
- Compliance Assurance Review (CAR)

For purposes of developing the improper payment estimates for FY 2018, the schools identified from the five Program Review triggers were treated as separate strata and grouped as follows:

- Compliance Initiatives; and
- CARs. [7]

Each population (Compliance Initiatives and CARs) were treated as a separate stratum. A selection of schools was made from each stratum, based on instructions from SESG Management. The stratification of schools based on the Annual Risk Assessment is intended to provide sample representation of the various risk-based groupings.

The schools included in the review and assigned to the Compliance Initiative stratum are manually selected into the sample based on their Program Review risk characteristics (that is, the selection and inclusion of these school is not random). The schools included in the CAR stratum are randomly selected for inclusion and review.

Schools selected by SESG for Program Review were stratified as either a Compliance Initiative or CAR school based on the Program Review Reason. Those schools selected for CAR or Compliance Initiative Review were selected based on the modified total scores assigned to the schools by SESG and other criteria detailed within the respective Annual Risk Assessments. The scores support SESG's selection of Program Reviews to be performed and are a proxy for improper payment risk-level.[8] If the schools were selected for review for Other Reasons (i.e., not CAR or Compliance Initiative reviews), they were assigned to either the CAR or Compliance Initiative stratum based on the modified total scores assigned to the schools by SESG and other criteria as outlined in the FY 2018 Annual Risk Assessment. Schools selected for review for Other Reasons may not be scored as part of the FY 2018 Annual Risk Assessment.[9] These schools were assigned to the Compliance Initiative stratum.[10]

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[7] In the estimation methodology approved for FY 2016, schools identified from the five Program Review triggers were treated as three separate strata and grouped as follows: Compliance Initiatives, CARs, and Other (CCR, Referrals, Complaints, and Self-Reported Violations). For FY 2017 and beyond, Program Reviews are grouped into two strata (i.e., Compliance Initiatives and CARs). This update was made to the methodology to help address the variability in the improper payment estimates. Based on the results of the prior two years, FSA noted that the estimated improper payment rates were not strongly correlated with the stratum groupings and that a low sample size in the CAR stratum was driving increased variability in the overall estimate (this category of schools accounts for a large portion of the Pell and DL disbursements). By using two rather than three strata, FSA is able to align the stratification with the initial SESG risk scoring output and distribute the sample size across fewer strata, thereby increasing the number of sampled schools in each stratum and potentially reducing the likelihood that student-level test results of a single observation significantly influence the improper payment estimates.

[8] The risk areas reviewed and scored as part of the Annual Risk Assessment include those that may be indicative of improper payment risk such as Significant Fluctuations in Title IV Funding, Direct Loan Default, Dropout Rates, Frequent Changes in School Officials, Complaints, Distance Education, and Accreditor Adverse Actions.

[9] Schools that do not receive a score include but are not limited to foreign schools, schools that were closed or lost eligibility prior to the date of the Annual Risk Assessment, and schools that were initially certified at the time of or after the report was issued.

[10] These non-scored schools were assumed to be higher-risk as they were specifically selected by SESG for review due to additional risk factors not included in the Annual Risk Assessment.

Schools not selected for review were assigned to either the CAR or Compliance Initiative stratum based on their modified total score and other criteria outlined in the FY 2018 Annual Risk Assessment. Schools that did not receive an Annual Risk Assessment score and were not selected for Program Review were distributed across the two strata via the following steps.

1. Identify the schools for which a stratum could be assigned.
2. For schools which a stratum could be assigned, calculate the number of schools, disbursement amounts, and enrolled students by stratum as a percentage of total schools, total disbursements, and total student enrollment for the schools for which a stratum could be assigned.
3. For schools for which no stratum could assigned, allocate the number of schools, total disbursements, and student enrollment among the two strata based on the respective school, disbursement and student enrollment proportions calculated in Step 2.

Schools for which a stratum could not be assigned were not individually assigned to a stratum. Instead, the disbursements and students that they represent were proportionally assigned to the strata in accordance with the instructions above.

The baseline estimates for Pell and DL are based on the institutions and disbursements selected and tested via the existing SESG Program Review process. Additionally, for Pell, the baseline estimate incorporates improper payment rates reported in the FAFSA/IRS Data Statistical Study (Study), to account for improper payments associated with recipients who do not use the IRS Data Retrieval Tool (DRT) who provide inaccurate self-reported income on the FAFSA, and who are not selected for income verification. The Study includes Pell-specific estimated improper payment rates based on a comparison between information reported by applicants on the FAFSA and income details reported to the IRS. For those sampled students in the Program Review Reports not selected for income verification and who did not use the IRS DRT, the improper overpayment and underpayment rates from the Study were applied to the sample disbursements for the applicable AY to estimate improper payments due to misreported income. To avoid applying an improper payment rate twice to one disbursement, for those students whose entire Pell value was deemed improper through another procedure in the Program Review Report, the rate reported in the Study was not applied to these disbursements. Additionally, any overpayment or underpayment findings due to conflicting income information identified within the Program Review Reports were disregarded as these findings are accounted for by applying the Study rates to the sample disbursements for students who did not use the IRS DRT and who were not selected for income verification. The improper payments found in SESG Program Reviews were extrapolated to the entire population of schools that disbursed Pell funding during the period under review. Prior to extrapolating estimated improper payments for sampled schools to total Pell disbursements, total Pell school- and program-level improper payments identified within Final Program Review Determinations and Final Expedited Determination Letters were added to the total estimated improper payments for the corresponding school.

Based on this analysis, the Pell error rate for FY 2018 was 8.15 percent or $2,302.36 million.

FY 2018 Pell Grant Estimate Two-Stage Estimator			
Point Estimate of Improper Payment (in millions)	Over-Payment Improper Payment Estimate	Under-Payment Improper Payment Estimate	Point Estimate (as % of Population Total)
$2,302.36	$2,223.52	$78.84	8.15%

Direct Loan Program

The FY 2018 DL improper payment estimate was based on the results of improper payment fieldwork over the three components of the DL program: 1) Program Reviews conducted by SESG at a sample of schools for disbursements to students, as described in the Pell Grant section; 2) loan consolidation overpayment and underpayment activity; and 3) loan refund activity. Improper payment estimates were calculated for the three components (student disbursements [loan originations], consolidations, and refunds).

To calculate the DL Program Review estimate, the improper payments SESG Program Reviews was extrapolated to the entire population of schools that disbursed DL funding during the period under review. Prior to extrapolating estimated improper payments for sampled schools to total DL disbursements, total DL school- and program-level improper payments identified within Final Program Review Determinations and Final Expedited Determination Letters were added to the total estimated improper payments for the corresponding school.

The DL Program Review estimate was combined with two independent statistical sample estimates derived from the sampling of DL loan consolidations and refund payments. One overall estimate was then calculated which combined the three separate estimates as if they were cumulative.

Direct Loan Program Sampling				
Payment Type	Sampling Methodology	Extrapolation Methodology	Estimated Number of Loan Recipients	Number of Institutions[11]
Originations	Risk-Based	Two-Stage Ratio Estimator	9,281,161[12]	5,436
Payment Type	Sampling Methodology	Extrapolation Methodology	Estimated Number of Over/Under Payments	Number of Institutions
Refunds	Random	PPS Estimator	526,362[13]	N/A
Consolidations	Random	PPS Estimator	195,228[14]	N/A

The loan consolidation component of the DL improper payment estimate was computed by sampling five overpayments and five underpayments, from the universe of all underpayment and overpayment activities for each of the 12 months from July 2017 through June 2018 for a total sample size of 120. An independent sample of FFEL to DL consolidation overpayment and underpayment activity was selected using a Probability Proportional to Size (PPS) technique based on dollar amount to draw the sample to reduce the probability that small DL consolidations are selected. After selecting the monthly samples, each overpayment and underpayment was reviewed to determine which of these transactions are considered improper payments. Any improper payments found in the sample were extrapolated to

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[11] The source of this estimated population data is the Pell-DL Funding Report for AY 2015-2016 dated January 18, 2018.

[12] The source of this estimated population data is the Title IV Program Volume Report entitled "Award Year 2015-16 Recipient Summary" whose source is the Common Origination & Disbursement (COD) System. The data is as of January 2017.

[13] The source of this estimated population data is the July – December 2017 total DL Refunds over and underpayments as reported by Business Operations – Internal Controls Division (i.e., 140,899,032).The population data for the last available six month period was used to estimate the total DL Refunds over and underpayments for AY 2017-18. Intra-governmental transactions are excluded from these totals.

[14] The source of this estimated population data is the July – December 2017 total FFEL to DL Consolidations over and underpayments as reported by Business Operations – Internal Controls Division (i.e., 62,078 and 35,536, respectively). The population data for the last available six month period was used to estimate the total DL Consolidations over and underpayments for AY 2017-18. Intra-governmental transactions are excluded from these totals.

create a 95 percent statistical confidence interval range of the overall improper payment rate for loan consolidation activity. The absolute value of improper payments divided by the aggregate absolute value of the samples comprises the baseline rate for DL consolidation.

The third component was the review of loan refund activity. A refund on a borrower's account can occur when a payment is received for more than the amount due, resulting in a credit balance. In the case that the credit balance is less than $5, the account is closed out and written up to zero, unless the borrower requests a refund. A refund can also occur when a payment resides in an unapplied state in suspense and cannot be matched to a borrower's account. An independent sample of DL refund activity was selected using a PPS technique to reduce the probability of selecting transactions that are deemed not material. The PPS sample of DL refunds was based on samples of 10 refunds for each month from July 2017 to June 2018 for a total of 120 sample items. FSA's Financial Management System (FMS) was queried and 10 refunds from the refunds population were selected for each month. Once monthly samples are selected, each refund was tested to determine if the samples were considered improper payments. The value of improper payments divided by the aggregate value of the samples comprises the baseline rate for DL refunds.

The loan disbursement, consolidation, and refund rates were then applied to their representative FY 2018 balances. The aggregate estimated improper payment amount for all three components was then applied to the total disbursement activity for the Direct Loan program to determine the overall Direct Loan improper payment rate of 3.99 percent or $3,752.89 million.

FY 2018 Direct Loan Estimate Two-Stage Estimator			
Point Estimate of Improper Payment (in millions)	Over-Payment Improper Payment Estimate	Under-Payment Improper Payment Estimate	Point Estimate (as % of Population Total)
$3,752.89	$3,537.97	$214.92	3.99%

Supplemental Non-Statistical Estimate

FSA has developed a process for evaluating the quality of the improper payment estimates using the alternative methodology described above. This process involves preparing a supplemental non-statistical estimate based on the review of compliance audit findings. Given the risk-based process governing selection of the Program Reviews, the Program Review institution selections for Pell and DL may produce a group of institutions with higher risk of compliance. To assess the reasonableness of the baseline estimate, a supplemental improper payment estimate is calculated for the Pell and DL programs by evaluating a sample of institutions from compliance audits, selected using a PPS technique, and all available OIG audit reports of institutions that administered Pell and DL in AY 2015-16, excluding those institutions included as part of the Pell and DL Baseline Estimates.

Schools that participate in any FSA program generally must have an independent auditor conduct an annual audit of the school's compliance with the laws and regulations that are applicable to the FSA programs in which the school participates (a compliance audit). Section 487(c) of the Higher Education Act of 1965, as amended (the HEA) requires each Title IV participating institution to submit to the Department a compliance audit (and a financial audit) "on at least an annual basis." This statutory provision provides that the audit requirements can be met by submission of either an audit conducted under the Title IV Audit Guide issued by the Department's Office of the Inspector General (OIG) or, if the institution is eligible, by submission of the results of an audit of the institution conducted under the

[Single Audit Act of 1984](), [as amended in 1996]() (Single Audit). As compliance audits are generally required of all schools participating in FSA programs, these audits were used as the basis for the supplemental estimates. The Department sampled 140 compliance audits of the total population of schools participating in the Pell program and another 140 compliance audits of the total population of schools participating in the DL Program, along with all available in-scope OIG audit reports. Since the sampling methodology and size is rarely reported in compliance audits and OIG audits, it was assumed that 15 students were sampled in each audit; the assumption of 15 students was made to compare to guidelines of the sample methodology used in the General Assessment Program Reviews conducted by FSA.

The monetary findings were extracted from the reports for these independent samples and used to mathematically estimate the improper payment percentage rate for the Pell and DL programs. Findings related to improper payments were logged and divided by an estimated sample value computed based on the assumed sample size and disbursement values. The resulting supplemental estimates were 1.17 percent for Pell and 5.58 percent for DL.[15] These estimates are not statistical. Therefore, they are not intended to replace or override the baseline estimate. A comparison was made between the baseline estimates and the supplemental non-statistical estimates. The supplemental non-statistical estimates were used as a point of comparison against the baseline to determine if the baseline estimates seemed unduly high or low.

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[15] The Supplemental Estimate was calculated using a weighted projection of the sample results to account for the difference in the number of students at each school (and thereby the weight of each improper payment should be given).