BUREAU OF THE
Fiscal Service
U.S. DEPARTMENT OF THE TREASURY

2018 Annual Government-wide Federal Receivables Management Symposium

Back to Basics: Living the Legacy of the Debt Collection Improvement Act (DCIA)

May 23 & 24, 2018

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The Application of Business Intelligence to Better Understand Your Debt Portfolio

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DMS Business Analytics

The Business Analytics Branch (BAB) works closely with all of DMS to ensure that project plans, legislative initiatives, and strategic goals are financially feasible and sound.

- Responsible for analyzing trends, developing cost-benefit analyses, and compiling special (and complex) financial reports.
- Provides critical information to management based on various financial and statistical models.
- Prepares a wide range of highly substantive economic, debt, monetary, and financial analyses, evaluations, and policy recommendations.
- Analyzes the delinquent debt and expenditures for various Federal debt collection programs in light of economic trends; deploy, update, and institutionalize performance management, business intelligence, and quantitative analytics throughout the DMS organization.

Business Intelligence

- Meta Data.
  - Information about the data that you provide.
- Debt Characterization.
  - Descriptive statistics on your portfolio.
- Trend Analysis.
  - Evolution of patterns over time.
- Predictive Analytics.
  - Using machine learning/econometrics to predict outcomes.
- Forecasting.
  - Using patterns in trends to forecast.

DMS Data

- Treasury collects delinquent federal nontax debts, such as those owed to *Agency X,* through the Treasury Offset Program (TOP) and Cross-Servicing.

- TOP offsets state and federal payments to collect federal nontax debt.

- Cross-Servicing uses the full suite of debt collection tools (demand letters, calls, administrative wage garnishment, private collection agencies and credit reporting) to collect delinquent debts.

Cross Servicing: *Agency X* Active Debts

Cross-Servicing: *Agency X* Debts as of April 31, 2018

	Number of Active Debts	Outstanding Balance
Agency X	53,201	$349,677,813.15

Source: Cross-Servicing Agency Reconciliation Report. This report only allows the user to select an end of month date and provides data from program inception to the end of month date.

Cross-Servicing: Data Quality Measures

Taxpayer Identification (TIN) Compliance

	Cases Referred with a TIN	Total Cases Referred	% Cases Referred with a TIN
Q1 FY 2016	826	1,499	55%
Q2 FY 2016	564	942	60%
Q3 FY 2016	365	434	84%
Q4 FY 2016	570	664	86%
Q1 FY 2017	528	437	83%
Q2 FY 2017	662	752	88%

Batch File Processing

- Agency X refers via batch processing

120-Day Debt Referral Compliance

The Digital Accountability and Transparency Act of 2014 (DATA Act) requires federal agencies to refer their eligible delinquent non-tax debts to DMS for administrative offset at 120 days. This requirement was implemented in Q1 FY 2016 TROR reporting period. As of Q2 FY 2017, Agency X has 58,662 debts eligible for referral to TOP. Of those, 58,662 were referred, representing a 100% compliance rate.

DATA Act Compliance	FY16 1st Quarter	FY16 2nd Quarter	FY16 3rd Quarter	FY16 4th Quarter	FY17 1st Quarter	FY17 2nd Quarter
Eligible Debt Count	72,980	60,881	59,250	59,333	59,129	58,662
Referred Debt Count	58,726	60,769	59,079	59,331	59,125	58,662
Remaining Balance Not Referred	14,254	112	171	2	4	0
Referred Percentage	83.8%	99.9%	99.9%	99.8%	99.9%	100%

Cross-Servicing: Agency X Debt Portfolio

- Agency X has referred 161,971 debts to Cross-Servicing (CS) since September 2005.
- About one-fourth of Agency X debts (23%) are closed due to recalls.
- 48% of Agency X debts are closed due to full collection.
- Agency X Cross-Servicing net collections total $254 M.

Currently Active	Number of Cases	Total Referral Amount ($)	Net Total Collection Amount* ($)	Percent of Cases Recalled** (%)	Percent of Cases Fully Satisfied*** (%)
Yes	53,446	317,287,319	51,943,366	0	0
No	108,525	397,361,767	201,767,908	23	48
Total	**161,971**	**714,649,086**	**253,711,274**	**16**	**32**

Source: Cross-Servicing cases referred from 09/23/2005 - 05/31/2017.
* Includes adjustments, reversals and CS payments.
** Cases marked with disposition codes “Recall”, “Out of Business”, or “Bankruptcy”.
*** Cases marked with disposition codes “Paid in Full”, “Satisfied”, or “Satisfied PA”.

Cross-Servicing: Debt Characterizations

- Bureau C debts make up 65% of all Agency X referrals.
- Bureau B, Bureau A and Bureau E make up, respectively, 15%, 10% and 7% of referrals.
  - The median referral amount of these debts ranges from $415 to $501.
- Bureau D debts are large and very collectable.

Bureau Name*	Number of Cases	Median Referral Amount ($)	Cases with at Least One CS Payment* (%)	Median Collection Amount, Given at Least One CS Payment* ($)	Median Number of Days Since Delinquency	Cases Commercial (%)
Bureau A	13,904	476	35	477	127	38
Bureau B	18,115	415	25	534	82	20
Bureau C	79,427	2,152	19	800	423	0
Bureau D**	82	80,145	41	107,777	476	100
Bureau E	8,554	501	13	437	524	58
Other	2,298	1,277	30	661	287	77
Total	**122,380**	**2,078**	**22**	**575**	**393**	**13**

Source: Cross-Servicing cases referred from CY 2007-2014.
* Two-year collection cycle
** Bureau D are overpayments.

Cross-Servicing: Trend Analysis

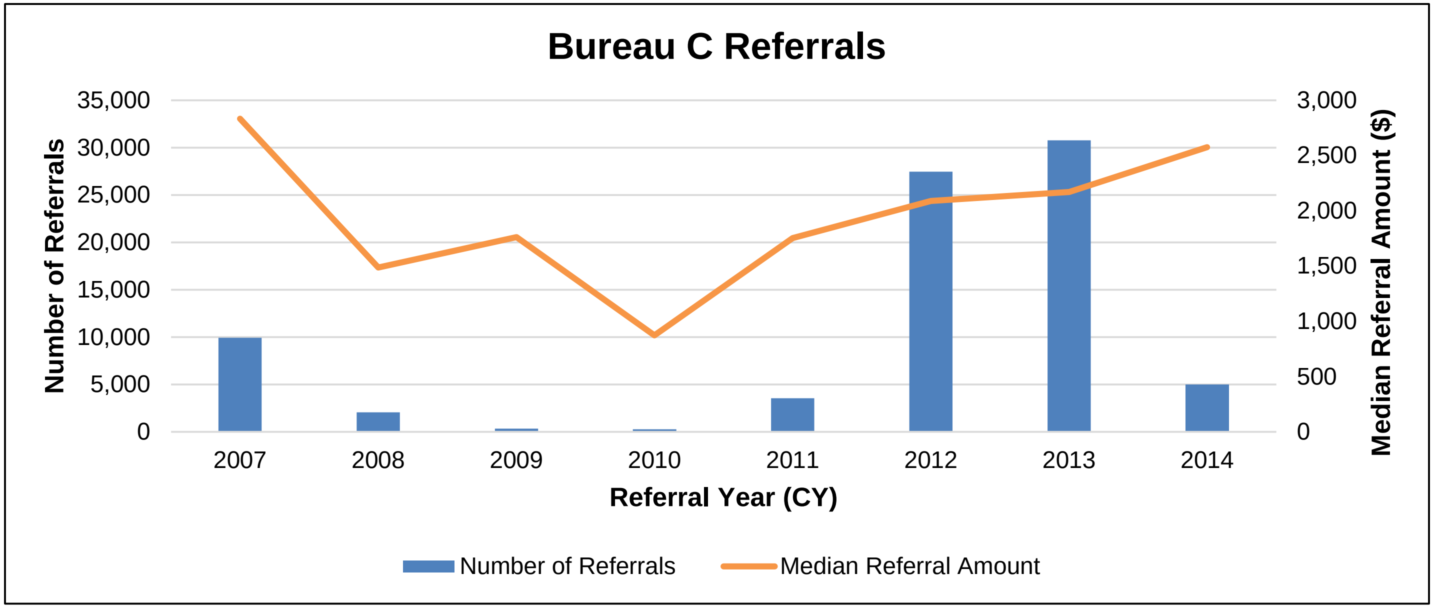
- The CS payment and collection rates have fluctuated over time.
- The median collection amount, given at least one payment, has seen a steady increase from 2007 – 2014.
- 2012 to 2014 referrals pay about two to five months later than 2008 to 2011 referrals.

Referral Year	Number of Referrals	Cases with at Least One CS Payment* (%)	Median Collection Amount, Given at Least One CS Payment* ($)	Mean CS Collection Percentage* (%)	Median Number of Days to First CS Payment
2007	20,204	16	442	16	107
2008	10,226	23	535	24	72
2009	5,763	28	553	32	72
2010	5,293	27	502	31	58
2011	7,236	22	455	20	55
2012	30,487	21	688	12	170
2013	34,526	21	882	13	203
2014	8,646	31	719	25	109
Total	122,380	22	663	17	143

Source: Cross-Servicing cases referred from CY 2007-2014.
* Two-year collection cycle

Cross-Servicing: Bureau C Referrals

- Bureau C debts drive the fluctuations in Agency X's referrals.
  - The 2012 and 2013 referral spikes were caused by a significant economic event driving increased revenue.
- The median referral amount of Bureau C debts has fluctuated from 2007 – 2014.

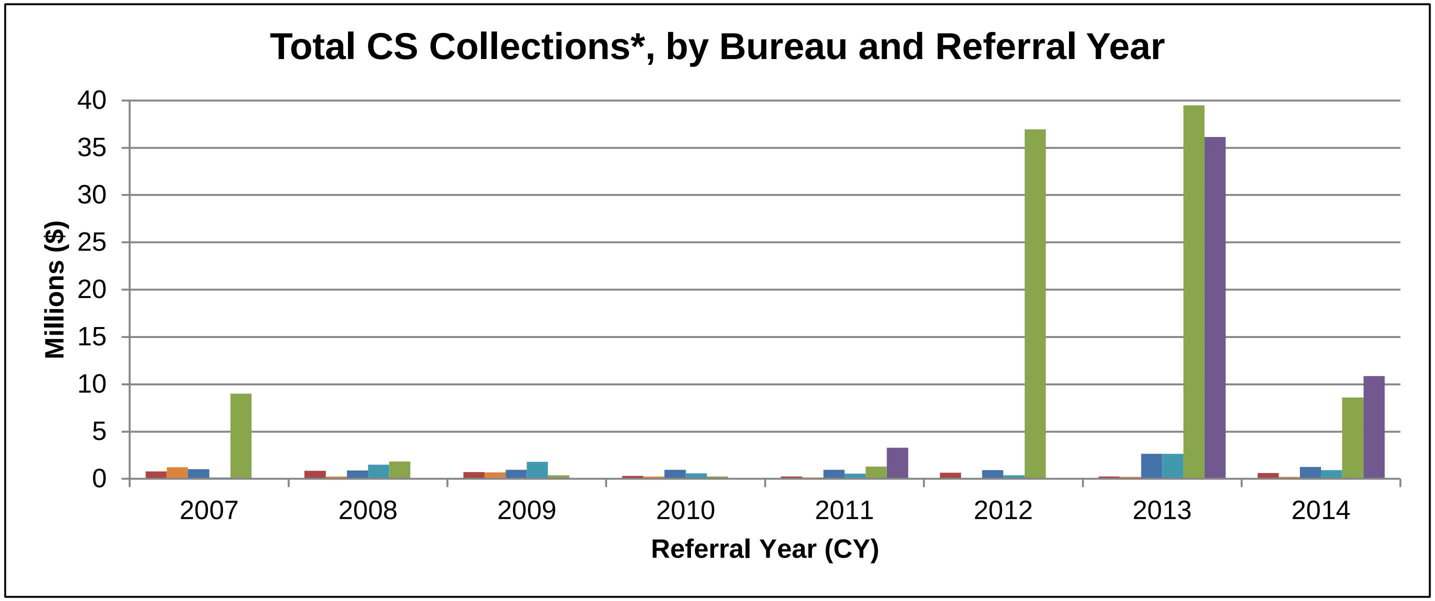


Source: Cross-Servicing cases referred from CY 2007-2014.
* Two-year collection cycle

Cross-Servicing: Collections

- Collections from Bureau C and Bureau D make up 85% of all Agency X collections.
  - The 2007 and 2012 to 2014 collections influxes correspond to the surge of Bureau C and Bureau D referrals during those years.

- Bureau A, Other, and Bureau B collections total $10M, $9M and $4M, respectively.



Source: Cross-Servicing cases referred from CY 2007-2014.
* Two-year collection cycle
** Bureau D had no referrals from 2007-2010.

Cross-Servicing: Payment Agreement Effectiveness

- Analytics is currently analyzing the effectiveness of different collection tools.

All Payment Agreements				Installment Agreements Only				
Agency	Number of PAs	Percent of Cases that Get PAs	Percent Voluntary One Time Full PAs	Percent Paid in Full	Average Referral Amount	Percent with at Least One Payment	Average Collection Amount	Average Collection Rate
Agency Y	14,879	11%	18%	25%	$ 14,614	86%	$ 3,416	33%
All Other Agencies	271,064	12%	46%	38%	$ 3,904	75%	$ 1,909	53%

Source: Cross-Servicing cases from CY 2007-2013

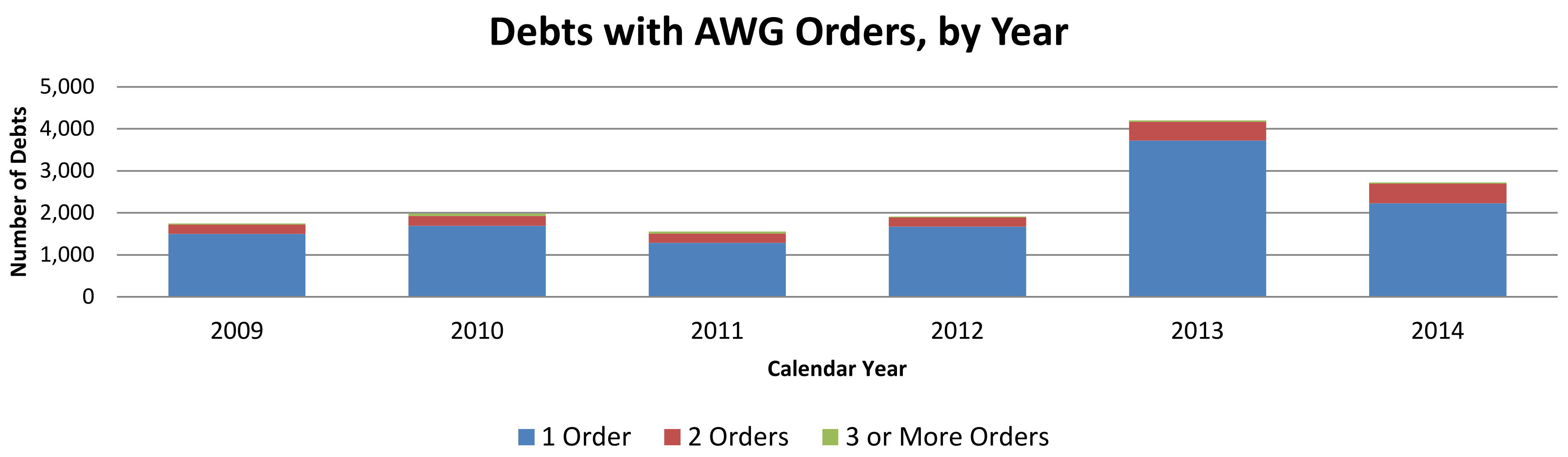
Agency	Compromise	Number of Cases	Average Referral Amount	Average Collection Rate
Agency Y	No	13,568	$ 16,470	38.4%
	Yes	1,311	$ 36,450	54.2%

Source: Cross-Servicing cases with resolved payment agreements from CY 2007-2013

Cross-Servicing: AWG Effectiveness

- Debts that were associated with entities are ineligible for AWG. Thus, consumer debts are the majority of debts that lead to AWG collections.

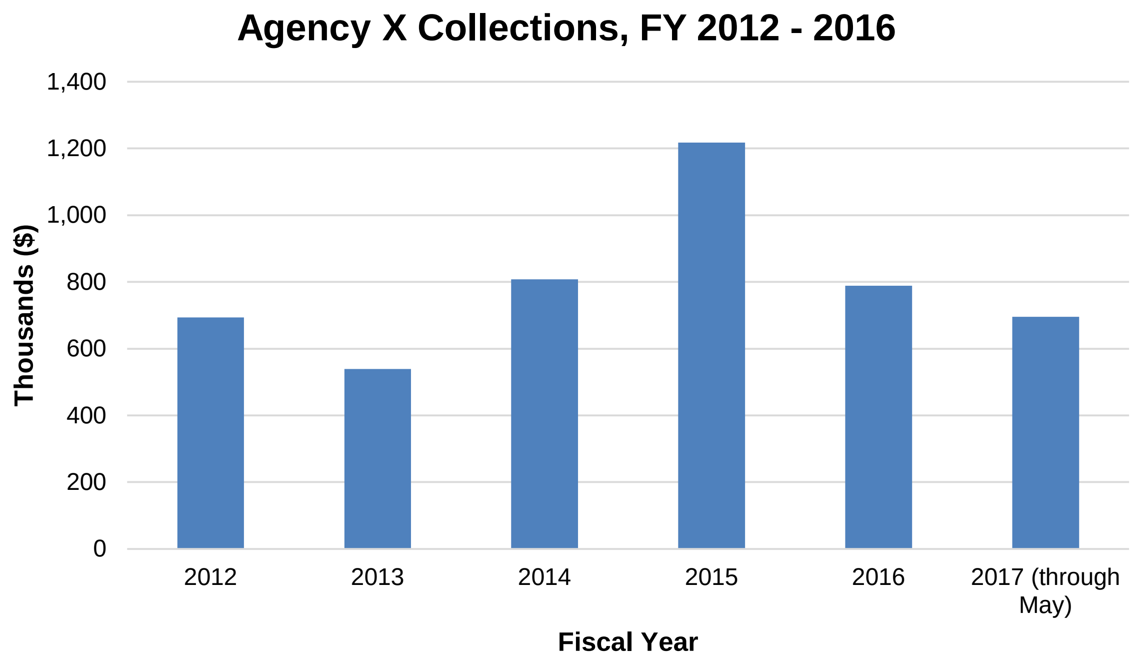
Number of AWG Orders	Number of Debts	Average Referral Amount	Average AWG Collection Amount	Percentage With AWG Payment	Total AWG Collection Amount
1	12,187	$33,608	$2,085	41%	$25,405,403
2	1,816	$27,508	$1,625	43%	$2,950,720
3	195	$22,574	$1,763	53%	$343,733
No AWG	119,808	$71,775	N/A	N/A	0



Source: Cross-Servicing cases with AWG orders from CY 2009-2014

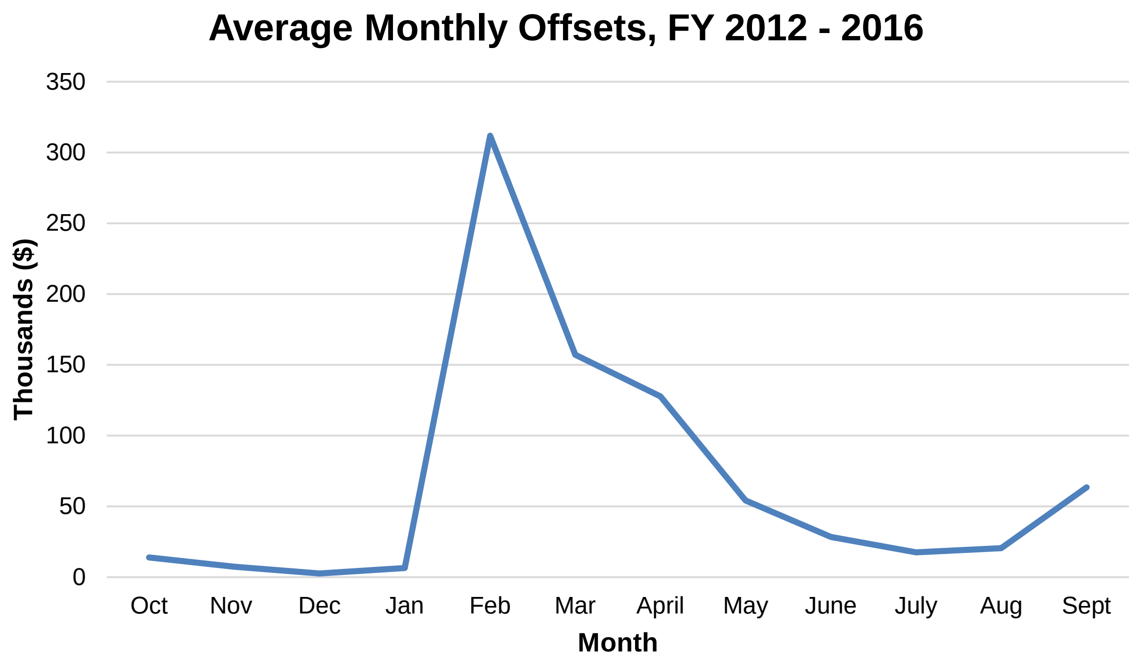
Treasury Offset Program: Collections

- Annual collections for Agency X debts through the Treasury Offset Program (TOP) have ranged from approximately $0.5 M to $1.2 M in recent years.
- Agency X collections peaked in FY 2015 at $1.2 M.



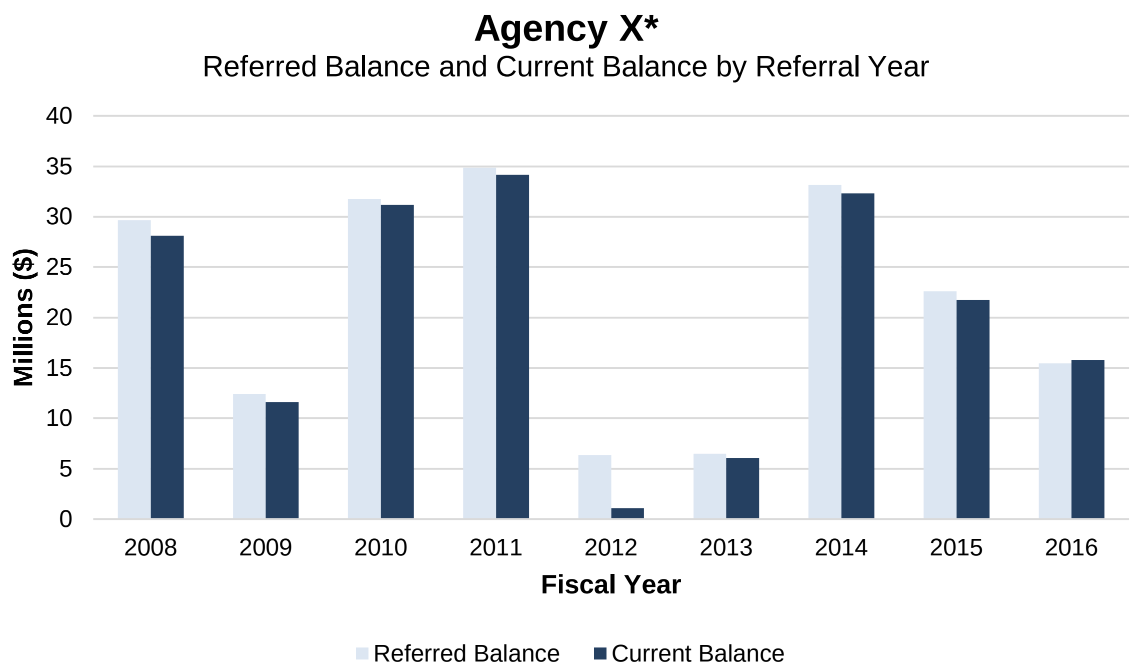
Treasury Offset Program: Collection Patterns

- Driven by tax refund offsets, collections are highly seasonal.
- 72% of collections occur during tax season (February – April).
  - 35% of collections occur in February.
  - Offsets reach a low in December with average collections of $2,511.



Treasury Offset Program: Referrals

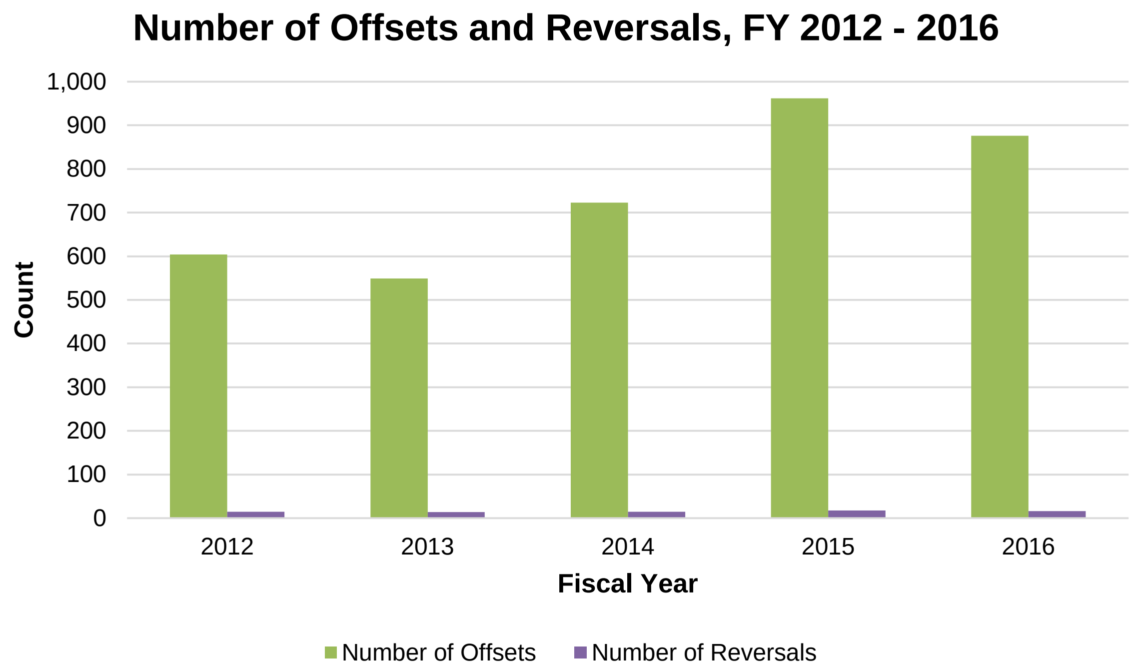
- From FY 2008 – 2016, the referred balance ranged from approximately $6 M to $35 M.
- Agency X experienced a dip in TOP referrals in FY 2012 at $6 M.
- There was a 410% increased in the referred balance from FY 2013-2014.



* Note: One $138 M debt was referred in FY 2016 with a decimal point error. The referral amount of this debt has been corrected to $1.3 M.

Treasury Offset Program: Offsets and Reversals

- Agency X offsets experienced a 60% increase between FY 2013 and FY 2016.
- The number of Agency X offsets peaked in 2015 at 962.
- Reversals over the last five fiscal years have averaged 2% of total offsets.



Additional Analyses

- Further areas of analysis could include:
  - Using machine learning to predict debt outcomes. This is debt segmentation.
  - Using forecasting models to predict trends, such as collection volumes and referral volumes.
- Analysis moves away from looking at things as they are, to try to guess what they will be.