

Prepared by the Technical Advisor on June 13, 2017

EX. C TO SHOW CAUSE ORDER REGARDING JUDGMENT AS A MATTER OF LAW
Exhibit C – Technical Advisor’s Identification from Experts’ Analyses of Class Members
Who Were Underpaid, Overpaid, and Correctly Paid

Experts’ Class Member Counts

Each expert produced with their 2015 expert reports calculation summary files listing the computed under, over, or correct payments for each class member.

- For BE, the produced summary file is “NKA1413025.xlsx” which lists 32,941 employees.¹ Counsel for plaintiffs produced a corrected version of this summary table on March 17, 2016.²
- For Dr. Thornton, the produced summary file is SAS dataset “countsbyemp2015update.sas7bdat” which lists 30,392 employees.³ **Table 1** summarizes the difference between BE and Dr. Thornton in total class member counts:

Table 1 - Class Member Counts Difference Between BE and Thornton's Analysis		
Total Class Members Included in Dr. Thornton's Analysis	[1]	30,392
Total Class Members Included in BE's Analysis	[2]	32,941
Class Members Included by BE but not Dr. Thornton		
Class Members on ramp-up for only month in data	[3a]	1,043
Additional Class Members with only one month in data	[3b]	671
Class Members that worked only in an 'LA' store	[3c]	734
Class Members without current explanation for difference	[3d]=[3]-[3a-c]	650
Class Members Included by Thornton but not BE		
	[4]	549
References:		
[1] Thornton 2015 Report, pg. 5, fn. 10; "cnts2015update" SAS dataset.		
[2] BE 2016 Rebuttal Report, p. 34 (¶96) cites an employee count of 33,941, while BE's final underpayment dataset contains exactly 32,941 Class Members (Dkt. 626-3, NKA1413025.xlsx). The report count appears to be a typo.		
[3a] Class Members on ramp-up according to Dr. Thornton's ramp-up dataset ("rebutcomp.dta" in DATA10).		
[3c] See NKA1413008, NKA1413010, NKA1413012, NKA1413014, NKA1413016, NKA1413018 datasets, employees with scid starting with the words "LA".		
Assumptions:		
[3b] These may correspond to employees with only partial months which Dr. Thornton excluded but BE kept.		
[3d] This remaining unexplained difference could include, for example, Class Members who always have a negative "learn" value in the Compensation Statement data and Class Members whose only commission calculation months resulted in extreme values (outliers identified and excluded by Dr. Thornton).		

¹ See, e.g., BE 2015 Report, ¶246, App. D.

² See March 17, 2016 email from Alex Baggio to Elise M. Bloom and Nicole Eichberger, et. al.

³ See, e.g., Dr. Thornton’s “cnts4update” SAS program (see “DATA21\Programs”).

As shown in **Table 1**, the number of total class members included in BE’s analysis (32,941) is different from the total included in Dr. Thornton’s analysis (30,392). BE analyzes 3,098 employees not included in Dr. Thornton’s class member list, and Dr. Thornton analyzes 549 employees not included in BE’s.

Experts’ Counts of Class Members Underpaid, Overpaid, or Correctly Paid

BE calculated that out of 32,941 employees, 28,988 were underpaid, 3,498 were overpaid, and 455 were correctly paid. Dr. Thornton calculated that out of 30,392 employees, 29,746 were overpaid, 629 were underpaid, and 17 were correctly paid. **Table 2** presents this summary.

	Number of Class Members from Dr. Thornton's Analysis	Number of Class Members from BE's Analysis
Total Class Size	30,392	32,941
Overpaid	29,746	3,498
Underpaid	629	28,988
Correctly Paid	17	455

Requests from the Court

The Court has asked me to produce the following lists of class members under two approaches: “Concession” and “Overlap”.

Concession:

- For the 3,953 (=3,498+455 in **Table 2**) class members for whom BE calculated overpayments or correct payments, produce the list as **Exhibit A1**;
- For the 629 class members for whom Dr. Thornton calculated underpayments, produce the list as **Exhibit B1**.

Under “Concession”, it may be that a subset of the 3,953 employees for whom BE calculated overpayments or correct payments was not among those in Dr. Thornton’s class list of 30,392. Similarly, it may be that a subset of the 629 employees for whom Dr. Thornton calculated overpayments was not among those in BE’s class list of 32,941.

Overlap:

- Identify the class members for whom both BE and Dr. Thornton calculated overpayments or correct payments, produce this list as **Exhibit A2**;

- Identify the class members for whom both BE and Dr. Thornton calculated underpayments, produce this list as **Exhibit B2**.

Summary of Technical Advisor’s Findings

Table 3 - "Overlap" versus "Concession" Counts of Employees			
	Number of Class Members from Dr. Thornton's Analysis	Number of Class Members from BE's Analysis	Number of Overlap Class Members between Dr. Thornton and BE
Total Class Size	30,392	32,941	29,843
Overpaid	29,746	3,498	2,572 [1]
Underpaid	629	28,988	537 [2]
Correctly Paid	17	455	2 [3]
[4] Number of Class Members Underpaid According To Dr. Thornton's Calculation			629
[5] Number of Class Members Overpaid or Correctly Paid According To BE			3,953
[6] Overlap Number of Class Members Between [4] and [5]			64
<u>Overlap Approach</u>			
Exhibit A2 Class Member Count = [1]+[3]		2,574	
Exhibit B2 Class Member Count = [2]		537	

Method Used By The Technical Advisor

BE’s summary file “NKA1413025.xlsx”:

- Uses the corresponding unique employee identifier “UEID” created by BE⁴; and
- Contains employee names;

Dr. Thornton’s summary file “countsbyemp2015update. sas7bdat”:

- Uses an employee identifier originated from the data field “hdr_vc_empnum” found in the Sprint data; and
- Does not contain employee names.

In order to compare BE’s file with Dr. Thornton’s file to identify overlaps, an employee identifier crosswalk file is needed to merge the two, given the different employee ID types included in each summary file.

⁴ See, e.g., BE 2015 Report, ¶47.

The produced employee ID crosswalk file “beids.txt” lists the BE UEID identifiers and the corresponding Sprint employee ID (“hdr_vc_empnum” aka “repid”⁵), the latter of which is listed in Dr. Thornton’s damages summary file. The “beids.txt” employee ID crosswalk is a file used and referenced by Dr. Thornton as part of an ID match for her 2016 rebuttal analysis where she quantifies critiques/adjustments for BE’s analysis.⁶ As part of this analysis, Dr. Thornton generates the “hdr_vc_empnum” employee ID variable and sets it equal to the “repid” employee ID variable listed in the crosswalk file.

Merging the summary calculation data with the UEID-repid crosswalk enables the assignment of the employee names to Dr. Thornton’s calculation summary file. Once the data is merged, it can be determined whether both BE and Dr. Thornton computed an overpayment, underpayment, or correct payment for each employee.

Attachment A outlines the information I have reviewed for the determination of using “beids.txt” as a crosswalk to link the experts’ class member lists.⁷

I will produce **Exhibits A1, B1, A2, and B2**, along with the SAS program and loglst file, to the Court, Special Master Cohen, and the parties’ Counsel and Experts.

⁵ See, e.g., Dr. Thornton’s “COMPONENT.do” STATA program, lines 7-15 (see “DATA21\Programs”); BE 2016 rebuttal report, ¶81.

⁶ See, e.g., Dr. Thornton 2016’s rebuttal report, ¶121, fn. 115, which references the STATA program “COMPONENT.do”.

⁷ Exhibit B1 includes 28 class members not found BE’s class list and therefore the employees do not have an assigned BE ID. Thus, for these individuals, the employee names are determined using the following Dr. Thornton datasets: “ids.xlsx” (see DATA2); and “comp_s3.sas7bdat” (see DATA20\Data).

Attachment A – Information Reviewed

1) Employee ID crosswalk files: **beids.txt**; **ids.xlsx**; **NKA1201436.xlsx**

- **beids.txt**
 - File location: "DATA10\Data"
 - Lists BE's UEID (under heading "BEUEID") and corresponding RepID (under heading "Redpid (1)")
 - File does not include employee names
- **NKA1201436.xlsx**
 - File location: Appendix Docs for BE's first expert report, dated 10.15.12
 - File includes BE's ID's and corresponding RepID's (and other ID's)
 - File does not include employee names
- **ids.xlsx**
 - File location: "DATA2"
 - File includes various corresponding Sprint system ID's
 - File does include employee names
 - File does not include BE's ID's

2) Locations of summary calculation files

- **NKA1413025**
 - Appendix Docs for BE's current report, dated 9.28.15
- **countsbyemp2015update.sas7bdat**
 - "DATA21\Data"