

**OAKLAND POLICE DEPARTMENT**  
**Office of**  
**Inspector General**



**Analyses of Race in Internal Investigation**  
**Outcomes and Discipline**

**April 2022**

## Executive Summary

The below report on internal investigation outcomes and discipline is a follow-up to a report that was released in April 2020 on police discipline disparities within the Oakland Police Department (Department). Although the initial report did find disparities in case outcomes by race, the data that was utilized contained thousands of records that were replicated based on the number of officers in each case. In order to resolve some of the questions that arose from the report produced by Hillard Heintze, the Department decided to take on the task of producing a reliable and meaningful dataset that could be analyzed internally by Department staff.

The Department worked with Dr. Monin of Stanford University to identify the best way to produce a clean dataset and analyze the data. After these discussions, the City's IT Department was brought in to create a data pull that would accurately reflect Internal Affairs (IA) data. After much discussion, it was decided that for analyses concentrated on race, the data should be analyzed at the case and officer level. That is, if an officer has a case that includes five allegations, analyzing at the allegation level would mean that officer's race would be counted five times in the data as opposed to another officer with a single-allegation case, who would only be counted once. Analyzing at the case and officer level means that officer information will only be counted once per case, avoiding the inflation caused by counting at the allegation level.

The data is split into two periods, cases that came to a finding from 2014-2017 and 2018-2021. Years are combined because of the low number of sustained cases each year per race. This allowed the Department to compare their results to a period similar to what Hillard Heintze reviewed (cases with a complaint date from 2014 to mid-2018) and compare that period to the following four years. A year-by-year breakdown of sustained cases is included in the report and revealed an overall sustained rate of 9%. Black officers experienced the highest overall sustained rate of 11% while white officers had an overall sustained rate of 9%. A Chi-square analysis was conducted to determine whether there were disparities between white officers and officers of other races (Black, Hispanic, Asian/Filipino, Other/Unknown) for the two periods. For each analysis (white v Black, white v Hispanic, white v Asian/Filipino, and white v other/unknown) there were not significantly different sustained rates for the two periods. Additionally, there were no significant differences for either period in the discipline of sustained cases by race.

One of the additions to the Department's dataset was the inclusion of a variable that identified the investigation type for each case. The most common investigation types are Division Level Investigation (DLI) and IA investigation. DLIs are investigated by field sergeants and IA investigations are handled by supervisors assigned to IA and typically involve the most serious allegations. Data that includes the investigation type variable is available for cases that came to a finding from 2018 to present. Additional analyses were conducted on the data for the 2018 to 2021 period and split the data by the two investigation types. The analyses revealed significant differences in three areas: between white and Black officers for DLIs with Black officers being sustained more frequently, between white and Hispanic officers for IA investigations with white officers being sustained more frequently, and between white and Asian/Filipino officers with white officers being sustained more frequently. Once again, significant differences were not found for discipline.

After reviewing the DLI sustained rates by year, it appeared that 2019 was driving the disparity between white and Black officers. Further Chi-square testing was conducted on each year and determined that 2019 was the only year where significant differences between white and Black officers appeared. For

2018, 2020, and 2021, there were no significant differences in the sustained rate of DLIs for white and Black officers.

Overall, for case outcomes, the disparity found in 2019 between white and Black officers for DLIs is cause for some concern and warrants a closer look. No disparities were found in officer discipline for all cases combined or when cases were analyzed by investigation type. Future recommendations involve enhancements to the data collection process, increased transparency, and further analysis of the 2019 DLI data to try to determine the cause of the outcome disparity between white and Black officers.

The current report provides the necessary framework for the Department to conduct ongoing analyses of IA data. The Department has put sustainability measures in place to assure these analyses occur on a consistent basis. First, the data pull created by the City's IT Department is available to those in the Risk Analysis Unit and Internal Affairs. The user only needs to enter a date range to pull the data. Secondly, conducting analyses of these data by race are written into the Department's Risk Management Policy (DGO R-1). While this report has helped to answer some lingering questions about racial disparities and IA investigations, it has also raised additional questions that the Department can analyze internally due to the practices and procedures put into place for the current report.

## **Analyses of Race in Internal Investigation Outcomes and Discipline**

This report is a follow-up to a report that was released in April 2020 on police discipline disparities within the Oakland Police Department (Department). The initial report, its findings, and its recommendations were accepted by the Department and will not be reviewed here in detail. Rather, the intent of this report is to focus on what has occurred since the completion of the initial study around internal investigations and discipline with a particular focus on whether race plays a role in either process.

The initial study focused on several areas relating to discipline: Department members' perceptions of investigations and discipline, an analysis of complaint investigations, an examination of policies and procedures for handling complaints and discipline, a review of probationary releases from the academy and field training, and analysis of complaint and discipline data. Based on the findings and recommendations from the initial study, a working group was convened to implement the recommendations and ensure their sustainability. The results of this work will be memorialized in an informational and training bulletin that will be released by the Department at a later date.

The current study focuses on the analyses of complaint outcome and discipline data. The below findings and analyses provide a basic review of whether there are differences between white officers and officers of other races within internal investigation processes and discipline. Eight years of data were reviewed, split into two periods due to the low number of sustained cases, 2014-2017 and 2018-2021. When all case types were combined, there were no significant differences between white officers and officers of other races for case outcomes or discipline. When breaking down the data by investigation type for the 2018-2021 period, significant differences were found in case outcomes with Black officers sustained more frequently than white officers in Division Level Investigations in 2019 and Hispanic and Asian/Filipino officers sustained less frequently than white officers in Internal Affairs Investigations for the 2018-2021 period. There were no significant differences when discipline was analyzed by investigation type.

### **Investigation Outcomes and Race**

When an investigation into officer behavior occurs, there are several factors or variables that could impact the outcome of the investigation. These factors can include whether there is video evidence of the allegation, the credibility of the complainant and the officer, or witness statements. Factors that should not impact an investigation are identifying variables such as the age, race, gender, or rank of the employee. The initial study conducted on investigation outcomes did not include this first set of variables likely because that information was not readily available and would have been extremely costly in terms of time and money to collect. Because of this, and due to other significant data issues, the findings from the initial research have come into question. While the current research is still unable to include investigative variables, it does address many of the data issues that were present in the initial study.

The first step in producing a meaningful analysis is to ensure the data being utilized is clean and accurate. In partnership with Drs. Monin and Eberhardt from Stanford University and as a part of the Department's Disparity Working Group, the Department resolved issues with the data that were identified following the initial study. To create a basic dataset to utilize for this study, and for future studies, Department employees worked with staff from the IT Department for the City of Oakland. The team created a data pull that included investigation information including allegations, findings, and discipline and linked that data to demographic information including the race, gender, and age of the subject officer. Previously, this data link resulted in duplicate entries where rows of data were repeated multiple times depending

on how many officers were subjects in the case. The new data pull resolved this issue. Additionally, since the initial study was published, the Department hired a Data Manager whose primary focus is the Department's officer activity data. Officer activity data including data on stops, force, pursuits, and complaints, are now reviewed by the Data Manager prior to use for research purposes or public release. Appendix 1 provides an overview of the data cleaning process.

The initial study analyzed complaint allegations with findings and discipline from 2014 to 2018. This meant that a large portion of the complaints made in the second half of 2018 were not included in the analyses because findings had not yet been reached. The current study includes cases that came to a finding between 2014 to 2021. After discussions with the Stanford research team and the Internal Affairs (IA) Commander, cases that came to a finding based on the results of a collision, pursuit, or force board were excluded. Such cases typically do not include an IA component, and the findings are based on recommendations from a review board, not an IA investigator or field sergeant. The current study includes all investigation types which includes, Internal Affairs (IA) Investigations, Internal Affairs Summary Findings, Division Level Investigations (DLI), Division Level Investigation Summary Findings, Administrative Closures, and Informal Complaint Resolutions. Definitions of each investigation type can be found in Appendix 2.

Discussions between the Stanford team and the Internal Affairs Division indicated that it would be appropriate to consider DLI and IA investigations separately. DLIs are generally conducted by field sergeants and typically contain less serious allegations. IA investigations involve the most serious allegations and are conducted by supervisors with more thorough investigative training. Unfortunately, prior to 2018, this information is not readily available. Because the 2014-2017 period is important to this report, it was decided two separate analyses would be conducted. The first combines all cases and compared the 2014-2017 period to 2018-2021. The second analyses involve the DLI and IA investigations.

Like the initial study, the current research only includes findings for named, sworn employees. One of the biggest differences between the initial study and the current study is that the current study analyzes the data at the case and officer level, whereas the initial study analyzed the data at the allegation level within cases. Because the primary question is whether the race of an officer impacts the outcome of a case, analyzing the data at the allegation level would inflate the findings for cases with multiple allegations. That is, if an officer has a case that includes five allegations, analyzing at the allegation level would mean that officer's race would be counted five times in the data as opposed to another officer with a single-allegation case, who would only be counted once. Analyzing at the case and officer level means that officer information will only be counted once per case, avoiding the inflation caused by counting at the allegation level. There was some concern that conducting the analyses at the case level would ignore any disparities in the number of allegations per case. Appendix 3 provides a breakdown of the number of allegations per case by race and reveals that 63% of cases contain one allegation per case. White officers have one allegation per case 64% of the time and Black officers 63% of the time. Appendix 3 also provides the racial breakdown of cases that come into IA by complaint date. This breakdown generally mirrors the demographics of the Department.

At the case level, a case was determined to be "sustained" if it included one or more sustained allegations. If the case had no sustained findings, the case was categorized as "other than sustained." Table 1 displays the sustained rate from 2014 to 2021 by race. The overall sustained rate for the whole period is 9%. The sustained rate ranges from 5% in 2017 to 12% in 2019.

**Table 1: Sustained Rate for All Investigation Types**

	White		Black		Hispanic		Asian/ Filipino		Other/ Unknown		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
<b>2014</b>	26	11%	10	10%	12	9%	6	6%	1	17%	55	9%
<b>2015</b>	24	7%	10	9%	11	7%	6	5%	0	0%	51	7%
<b>2016</b>	21	6%	17	9%	22	11%	10	8%	1	3%	71	8%
<b>2017</b>	18	5%	9	6%	15	7%	4	2%	1	4%	47	5%
<b>2018</b>	39	11%	18	13%	14	6%	13	8%	2	8%	86	9%
<b>2019</b>	36	10%	29	17%	30	11%	19	10%	4	10%	118	12%
<b>2020</b>	36	10%	20	11%	37	10%	19	9%	2	4%	114	9%
<b>2021</b>	47	10%	20	9%	32	7%	16	7%	8	14%	123	9%
<b>Total</b>	<b>247</b>	<b>9%</b>	<b>133</b>	<b>11%</b>	<b>173</b>	<b>9%</b>	<b>93</b>	<b>7%</b>	<b>19</b>	<b>8%</b>	<b>665</b>	<b>9%</b>

Table 1 does show fluctuations in the sustained rate over time; however, in 2019, there is a large difference in the sustained rate for Black and white officers. Analyses in a later section of this report provides a bit more detail on this disparity. While Table 1 provides a simple breakdown of the sustained rate by race it does not determine whether there is a significant relationship between the outcome of an investigation and the race of the officer. Using the same method as the initial study, expected outcomes were calculated for two periods, 2014-2017 and 2018-2021. Years were combined because of the low number of sustained cases each year for some races. Though not a perfect comparison, the first period, cases with sustained findings from 2014-2017, generally represents the period reviewed in the initial study.

In order to determine whether there were significant differences between the outcomes for officers of other races compared to white officers, a 2 by 2 Chi square for pairwise comparisons was conducted. For 2014-2017, the sustained rate for white officers was 7% (89 of 1235 cases). Tables 2-5 provide the Chi-square test for officers of other races compared to white officers. For 2014-2017, the rate of cases with at least one sustained allegation was slightly higher for Black officers than for white officers (8% v 7%), but this difference was not significant,  $\chi^2(1) = 0.84, p = 0.359$ . For the 2018-2021 period, white officers were sustained 9% of the time and Black officers 10% of the time. Again, these differences were not significant. If the differences were significant, the *p* value would be less than 0.05. For all the comparisons for both periods, there were no significant differences between officers of other races and white officers.

**Table 2: Sustained Rate Chi-Square for White v Black Officers**

	Other than Sustained		Sustained		Chi-Square Value	<i>p</i>
	Observed	Expected	Observed	Expected		
<b>2014-2017</b>						
White	93% (1,146)	92% (1,141)	7% (89)	8% (94)	0.84	0.359
Black	92% (498)	92% (503)	8% (46)	8% (41)		
<b>2018-2021</b>						
White	90% (1,383)	91% (1,373)	10% (158)	9% (168)	2.10	0.147
Black	91% (620)	90% (630)	9% (87)	10% (77)		

**Table 3: Sustained Rate Chi-Square for White v Hispanic Officers**

	Other than Sustained		Sustained		Chi-Square Value	<i>p</i>
	Observed	Expected	Observed	Expected		
2014-2017						
White	93% (1,146)	92% (1,141)	7% (89)	8% (94)	0.93	0.334
Hispanic	92% (653)	92% (658)	8% (60)	8% (55)		
2018-2021						
White	90% (1,383)	91% (1,395)	10% (158)	9% (146)	2.24	0.135
Hispanic	92% (1,200)	90% (1,188)	8% (113)	10% (125)		

**Table 4: Sustained Rate Chi-Square for White v Asian/Filipino Officers**

	Other than Sustained		Sustained		Chi-Square Value	<i>p</i>
	Observed	Expected	Observed	Expected		
2014-2017						
White	93% (1,146)	93% (1,153)	7% (89)	7% (82)	2.01	0.156
Asian/Filipino	95% (463)	93% (456)	5% (26)	7% (33)		
2018-2021						
White	90% (1,383)	90% (1,394)	10% (158)	10% (147)	2.66	0.103
Asian/Filipino	92% (752)	90% (741)	8% (67)	10% (78)		

**Table 5: Sustained Rate Chi-Square for White v Other/Unknown Officers**

	Other than Sustained		Sustained		Chi-Square Value	<i>p</i>
	Observed	Expected	Observed	Expected		
2014-2017						
White	93% (1,146)	93% (1,147)	7% (89)	7% (88)	0.46	0.497
Other/Unknown	95% (58)	93% (57)	5% (3)	7% (4)		
2018-2021						
White	90% (1,383)	90% (1,385)	10% (158)	10% (156)	0.17	0.678
Other/Unknown	91% (157)	90% (155)	9% (16)	10% (18)		

Overall, the above analyses show no significant differences in case outcomes between white officers and officers of other races during the two periods. Although the current analyses have limitations, they provide an improvement over the prior study in that they utilize clean data, removed collision/pursuit/force board allegations, and analyze the data at the case level to avoid over-inflating the results.

### Internal Affairs and Division Level Investigations

While information on investigation type was not available for the whole period studied (2014-2021), investigation type is available for cases with a finding from 2018 to 2021. For these analyses, IA Investigations and IA Summary Findings were combined and DLIs and DLI Summary Findings were combined. Other investigation types were removed. Tables 6 and 7 display the sustained rate by year by investigation type.

**Table 6: 2018-2021 Sustained Rate Division Level Investigations and Summary Findings**

	White		Black		Hispanic		Asian/ Filipino		Other/ Unknown		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
<b>2018</b>	18	7%	11	11%	7	4%	7	5%	1	6%	44	7%
<b>2019</b>	19	6%	24	17%	21	9%	15	10%	4	12%	83	10%
<b>2020</b>	21	8%	12	8%	26	9%	16	10%	2	5%	77	9%
<b>2021</b>	18	7%	15	11%	18	7%	9	6%	4	11%	64	8%
<b>Total</b>	<b>76</b>	<b>7%</b>	<b>62</b>	<b>12%</b>	<b>72</b>	<b>8%</b>	<b>47</b>	<b>8%</b>	<b>11</b>	<b>9%</b>	<b>268</b>	<b>8%</b>

**Table 7: 2018-2021 Sustained Rate IAD Investigations and Summary Findings**

	White		Black		Hispanic		Asian/ Filipino		Other/ Unknown		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
<b>2018</b>	21	22%	7	23%	7	19%	6	19%	1	20%	42	21%
<b>2019</b>	17	28%	5	26%	9	22%	4	16%	0	0%	35	24%
<b>2020</b>	15	15%	8	28%	11	14%	3	8%	0	0%	37	15%
<b>2021</b>	29	15%	5	7%	12	8%	7	9%	4	27%	57	12%
<b>Total</b>	<b>82</b>	<b>19%</b>	<b>25</b>	<b>17%</b>	<b>39</b>	<b>13%</b>	<b>20</b>	<b>11%</b>	<b>5</b>	<b>14%</b>	<b>171</b>	<b>16%</b>

While the tables above provide a simple breakdown by year, for the tables below, a Chi-square test was used to determine whether there were significant differences in outcomes for white officers and officers of other races. Tables 8-11 provide the observed and expected outcomes for each race as well as the results of the Chi-square test. P values less than 0.05 indicate significant differences.

**Table 8: 2018-2021 DLI/IAD Chi-Square for White v Black Officers**

	Other than Sustained		Sustained		Chi-Square Value	p
	Observed	Expected	Observed	Expected		
<b>DLI</b>						
White	93% (974)	91% (958)	7% (76)	9% (92)	9.52	0.002
Black	88% (458)	91% (474)	12% (62)	9% (46)		
<b>IAD</b>						
White	81% (358)	82% (360)	19% (82)	18% (80)	0.20	0.658
Black	83% (122)	82% (120)	17% (25)	18% (27)		

**Table 9: 2018-2021 DLI/IAD Chi-Square for White v Hispanic Officers**

	Other than Sustained		Sustained		Chi-Square Value	p
	Observed	Expected	Observed	Expected		
<b>DLI</b>						
White	93% (974)	93% (972)	7% (76)	7% (78)	0.18	0.657
Hispanic	92% (859)	92% (861)	8% (72)	8% (70)		
<b>IAD</b>						
White	81% (358)	84% (368)	19% (82)	16% (72)	3.99	0.046
Hispanic	87% (259)	84% (249)	13% (39)	16% (49)		

**Table 10: 2018-2021 DLI/IAD Chi-Square for White v Asian/Filipino Officers**

	Other than Sustained		Sustained		Chi-Square Value	p
	Observed	Expected	Observed	Expected		
DLI						
White	93% (974)	93% (972)	7% (76)	7% (78)	0.17	0.678
Asian/Filipino	92% (556)	93% (558)	8% (47)	7% (45)		
IAD						
White	81% (358)	83% (367)	19% (82)	17% (73)	4.59	0.032
Asian/Filipino	89% (154)	83% (145)	11% (20)	17% (29)		

**Table 11: 2018-2021 DLI/IAD Chi-Square for White v Other/Unknown Officers**

	Other than Sustained		Sustained		Chi-Square Value	p
	Observed	Expected	Observed	Expected		
DLI						
White	93% (974)	93% (974)	7% (76)	7% (76)	0.34	0.563
Other/Unknown	91% (116)	93% (118)	9% (11)	7% (9)		
IAD						
White	81% (358)	82% (359)	19% (82)	18% (81)	0.41	0.522
Other/Unknown	86% (30)	83% (29)	14% (5)	17% (6)		

The tables above revealed the following significant differences, white v Black officers for DLIs with Black officers being sustained more frequently, white v Hispanic officers for IA Investigations with white officers being sustained more frequently, and whites v Asian/Filipino officers for IA Investigations with white officers being sustained more frequently.

It is important to understand that the low number of sustained cases each year and overall indicate that small increases or decreases in the numbers could have a large impact on sustained rates. For DLIs, the sustained rate for Blacks was 17% in 2019, which represented 24 sustained cases, almost as many as in 2020 and 2021 combined. The 2019 data appears to drive the higher overall sustained rate for Black officers. The sustained rate dropped in other years indicating that 2019 was an outlier.

A Chi-square was run for DLIs, each year from 2018-2021 for white v Black officers to test if the disparity was being driven by 2019 as hypothesized. Since each value has more than five cases, the Chi-square could be run on each year. Table 12 displays the result of the Chi-square and shows significant differences in only 2019 since the p value is less than 0.05.

**Table 12: 2018-2021 DLI Chi-Square for White v Black Officers**

	Other than Sustained		Sustained		Chi-Square Value	<i>p</i>
	Observed	Expected	Observed	Expected		
2018						
White	93% (236)	92% (233)	7% (18)	8% (21)	1.33	0.249
Black	89% (91)	92% (94)	11% (11)	8% (8)		
2019						
White	94% (275)	90% (265)	6% (19)	10% (29)	12.32	0.000
Black	83% (115)	90% (125)	17% (24)	10% (14)		
2020						
White	92% (233)	92% (233)	8% (21)	8% (21)	0.00	0.950
Black	92% (130)	92% (130)	8% (12)	8% (12)		
2021						
White	93% (230)	92% (227)	7% (18)	8% (21)	1.53	0.216
Black	89% (122)	91% (125)	11% (15)	9% (12)		

While the initial significant finding of differences in outcomes for DLIs between white and Black officers was for the whole 2018-2021 period, further testing reveals that significant differences only occurred in 2019. The Department should review the DLIs that occurred in 2019 to determine whether any specific factors caused the higher sustained rate for Black officers.

## Discipline and Race

A second area of concern for the Department was whether there was any relationship between race and the discipline an officer received from a sustained case. The initial study found no disparity in disciplinary outcomes based on race<sup>1</sup>. Race, gender, and other demographic factors should not be considered when determining discipline. However, aggravating factors such as whether the misconduct was willful and deliberate, the misconduct was premeditated, or the officer had a leadership role in the misconduct are considered. Also considered are mitigating factors such as whether the employee was forthright and truthful, whether the employee had a minor role in the misconduct, or commendations received by the employee. Each sustained employee's supervisor completes a Pre-Discipline Report which lists all aggravating and mitigating factors<sup>2</sup>. Additionally, for the whole period studied, a discipline matrix has been in place to ensure fair and consistent implementation of discipline<sup>3</sup>. Discipline determinations are made during a pre-discipline conference which is attended by members of the Executive Team. Final discipline is determined by the Chief of Police.

To determine whether there may be a relationship between the race of an officer and the discipline they receive, the same steps were followed that were used for the case outcome analysis. Tables 13 and 14 provide numerical and percent breakdowns by discipline type and race for the two periods. The most common discipline types are written reprimand, counseling, suspension, and termination or resignation.

**Table 13: 2014-2017 Discipline for Sustained Cases by Officer Race**

	White		Black		Hispanic		Asian/ Filipino		Other/ Unknown		Total	
Written Reprimand	32	36%	20	43%	18	30%	9	35%	1	33%	80	36%
Counseling	31	35%	9	20%	15	25%	7	27%	0	0%	62	28%
Suspension	19	21%	11	24%	18	30%	7	27%	2	67%	57	25%
Termination	4	4%	0	0%	2	3%	0	0%	0	0%	6	3%
Resigned	1	1%	3	7%	2	3%	1	4%	0	0%	7	3%
Released from Probation	1	1%	0	0%	2	3%	1	4%	0	0%	4	2%
Retired	1	1%	1	2%	0	0%	1	4%	0	0%	3	1%
No Discipline	0	0%	2	4%	1	2%	0	0%	0	0%	3	1%
Demotion	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Held in Abeyance	0	0%	0	0%	1	2%	0	0%	0	0%	1	0%
Last Chance Agreement	0	0%	0	0%	1	2%	0	0%	0	0%	1	0%
Refer to Log	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Training	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
<b>Total</b>	<b>89</b>	<b>100%</b>	<b>46</b>	<b>100%</b>	<b>60</b>	<b>100%</b>	<b>26</b>	<b>100%</b>	<b>3</b>	<b>100%</b>	<b>224</b>	<b>100%</b>

<sup>1</sup> Hillard Heintze (2020). Oakland Police Department Police Discipline Disparity Study Final Report.

<sup>2</sup> TF 3340 Pre-Discipline Report. Revised: May 2015.

<sup>3</sup> Training Bulletin V-T Discipline Policy Appendix. Effective Date: March 14, 2014.

**Table 14: 2018-2021 Discipline for Sustained Cases by Officer Race**

	White		Black		Hispanic		Asian/ Filipino		Other/ Unknown		Total	
Written Reprimand	56	35%	24	28%	34	31%	25	37%	8	50%	147	34%
Suspension	52	33%	28	32%	34	31%	17	25%	3	19%	134	31%
Counseling	36	23%	29	33%	34	31%	21	31%	5	31%	125	29%
Termination	10	6%	4	5%	3	3%	3	4%	0	0%	20	5%
Resigned	2	1%	1	1%	1	1%	0	0%	0	0%	4	1%
Demotion	0	0%	0	0%	0	0%	1	1%	0	0%	1	0%
Held in Abeyance	0	0%	1	1%	0	0%	0	0%	0	0%	1	0%
Last Chance Agreement	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
No Discipline	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Refer to Log	0	0%	0	0%	1	1%	0	0%	0	0%	1	0%
Released from Probation	0	0%	0	0%	3	3%	0	0%	0	0%	3	1%
Retired	1	1%	0	0%	0	0%	0	0%	0	0%	1	0%
Training	1	1%	0	0%	0	0%	0	0%	0	0%	1	0%
<b>Total</b>	<b>158</b>	<b>100%</b>	<b>87</b>	<b>100%</b>	<b>110</b>	<b>100%</b>	<b>67</b>	<b>100%</b>	<b>16</b>	<b>100%</b>	<b>438</b>	<b>100%</b>

Using the four most common types of discipline, written reprimand, counseling, suspension, and termination, a 2x4 Chi-square test was conducted to determine if there were significant differences ( $p$  value of less than 0.05) in discipline between white officers and officers of other races. Tables 15-18 below display the results for each of the tests (white v Black, white v Hispanic, white v Asian, and white v Other) for the two periods. With three degrees of freedom, none of the comparisons are statistically significant. That is, compared to white officers, officers of other races did not receive significantly different discipline. Analyses of the data by investigation type can be found in Appendix 4. Breaking discipline down by investigation type did not reveal any significant differences between white officers and officers of other races.

**Table 15: Discipline Chi-Square for White v Black Officers**

	Counseling		Written Reprimand		Suspension		Termination		Chi-Square Value	p
	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected		
2014-2017										
White	36% (31)	32% (27)	37% (32)	41% (35)	22% (19)	24% (20)	5% (4)	4% (3)	4.86	0.182
Black	23% (9)	32% (13)	50% (20)	41% (17)	28% (11)	24% (10)	0% (0)	2% (1)		
2018-2021										
White	23% (36)	27% (42)	36% (56)	34% (52)	34% (52)	33% (51)	6% (10)	5% (8)	3.71	0.294
Black	34% (29)	25% (23)	28% (24)	31% (28)	33% (28)	38% (35)	5% (4)	5% (5)		

**Table 16: Discipline Chi-Square for White v Hispanic Officers**

	Counseling		Written Reprimand		Suspension		Termination		Chi-Square Value	p
	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected		
2014-2017										
White	36% (31)	33% (28)	37% (32)	36% (31)	22% (19)	27% (23)	5% (4)	5% (4)	2.48	0.479
Hispanic	28% (15)	34% (18)	34% (18)	36% (19)	34% (18)	26% (14)	4% (2)	4% (2)		
2018-2021										
White	23% (36)	27% (42)	36% (56)	35% (54)	34% (52)	33% (51)	6% (10)	5% (8)	3.84	0.279
Hispanic	32% (34)	27% (28)	32% (34)	35% (36)	32% (34)	34% (35)	3% (3)	5% (5)		

**Table 17: Discipline Chi-Square for White v Asian/Filipino Officers**

	Counseling		Written Reprimand		Suspension		Termination		Chi-Square Value	p
	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected		
2014-2017										
White	36% (31)	35% (30)	37% (32)	37% (32)	22% (19)	24% (21)	5% (4)	3% (3)	1.78	0.619
Asian/ Filipino	30% (7)	35% (8)	39% (9)	39% (9)	30% (7)	22% (5)	0% (0)	4% (1)		
2018-2021										
White	23% (36)	26% (40)	36% (56)	37% (57)	34% (52)	31% (48)	6% (10)	6% (9)	2.54	0.468
Asian/ Filipino	32% (21)	26% (17)	38% (25)	36% (24)	26% (17)	32% (21)	5% (3)	6% (4)		

**Table 18: Discipline Chi-Square for White v Other/Unknown Officers**

	Counseling		Written Reprimand		Suspension		Termination		Chi-Square Value	p
	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected		
2014-2017										
White	36% (31)	36% (30)	37% (32)	39% (32)	22% (19)	20% (17)	5% (4)	5% (4)	3.95	0.267
Other/ Unknown	0% (0)	33% (1)	33% (1)	33% (1)	67% (2)	33% (1)	0% (0)	0% (0)		
2018-2021										
White	23% (36)	24% (37)	36% (56)	38% (58)	34% (52)	32% (50)	6% (10)	6% (9)	3.14	0.371
Other/ Unknown	31% (5)	29% (4)	50% (8)	29% (4)	19% (3)	36% (5)	0% (0)	7% (1)		

## Limitations

As with any study, the study presented herein does have some limitations. These limitations, however, do not impact the overall findings regarding race, investigation outcome, and investigation discipline. The current study is a preliminary look at the data to determine whether more data collection and analyses are necessary. While the data permitted some conclusions regarding race and discipline, additional data representing other existing variables would permit a regression analysis which would provide a more complete picture of which variables impact case outcomes and discipline.

Currently, variables for internal investigation case reporting are readily available for investigation type, race, gender, assignment, rank, age, and years of service. Investigative variables such as whether the allegation was captured on video or audio recording, and the presence of witnesses, are found in each case file but are not entered into the Vision database. Adding this information into Vision would likely be a resource intensive process and the cost may outweigh the benefit at this point.

A second limitation is that because of the low number of sustained cases each year for certain races, year by year analyses could not be conducted for all data. Fortunately, for the additional analyses that was conducted on DLIs for Black and white officers, there was enough data each year for a meaningful analysis.

A third limitation and one that only impacted the ability to make a comparison with the first period (2014-2017) was that “investigation type” was not available for the 2014-2017 findings. While this meant the data could not be compared to the period Hillard Heintze reviewed, the analyses of the 2018 to 2021 data did produce significant findings.

## Recommendations

While conducting the current study, a few areas for improvement were identified. While these recommendations may improve the data collection and transparency, as mentioned above, the time and financial costs may outweigh the benefits. It is up to the Department to determine which recommendations, if any, will be implemented.

- In the IAD Administration section of Vision, add three new “Investigation Types”: collision board, pursuit board, and force board. This will make it easy to determine which investigations need to be pulled out or analyzed separately. The current process is done by hand and requires the researcher to make determinations that may be inaccurate.
- In the Discipline section, consider adding an aggravating and mitigating factor count for each employee. While it is understood that not all factors are weighed equally, this may be the easiest way to capture additional variables that are considered when determining discipline. Another option would be to add into Vision some of the details from the Pre-Discipline Report. This would provide the specific mitigating and aggravating factors. Again, it is recognized that the financial cost of this recommendation may outweigh its benefit.
- Consider creating a publicly releasable summary document that reports out on cases and discipline. Include information such as the allegation(s), findings, discipline, and appropriate demographic data. The LAPD’s Professional Standards Bureau releases disciplinary penalty reports monthly and would be a good reference<sup>4</sup>. The Department’s report would not need to be

---

<sup>4</sup> <https://www.lapdonline.org/office-of-the-chief-of-police/professional-standards-bureau/disciplinary-penalties/>

released as frequently due to the lower number of sustained cases. This report would increase transparency not only for the public but for employees as well.

- Conduct additional analyses on the 2019 DLI data to determine whether there were specific factors that led to the high sustained rate for Black officers.

## **Conclusions**

The current study provides a necessary update from the initial study which was published in early 2020. Data extraction process changes allowed for much cleaner data and more accurate analyses. A reanalysis of data from 2014-2017 and a new analysis of data from 2018-2021 revealed no significant differences between white officers and officers of other races for the outcome of investigations or discipline for sustained cases of all investigation types combined. Additional analyses that separated IA and DLIs revealed significant differences, most troubling was the finding that Black officers were sustained at a higher rate than white officers for DLIs. Testing each year revealed the disparity was due to the high sustained rate in 2019. Further analyses should assist in determining the potential cause of that disparity.

The current study represents an important first step in the analyses of IA data and shows the Department has the ability to conduct some of this research internally. The recommended additions to Vision would allow for more robust analyses. Processes have been put into place at the Department that require quarterly and annual reviews of case outcome data (see DGO R-1). The frequent analyses will allow the Department to identify any disparities and conduct further research into their cause prior to them becoming systemic issues.

## Appendix 1: Data Cleaning and Sustainability Procedures

Questions into OPD's data cleaning procedures arose after data was released to Hillard Heintze. This data contained duplications that made it appear as if OPD had many times more Internal Affairs complaints than it truly had. Image 1 below provides one example of a case that was included in the data sent to Hillard Heintze. This one case seems to involve five officers and a total of 24 allegations. Image 2 was pulled from Vision. It is the same case. The same five officers are involved; however, there are only six allegations in the case. Four officers received one complaint allegation and one officer received two. The number of duplicated allegations appears to increase when more officers are involved in the case. It is believed that the duplication issue occurred when the case data was joined to the personnel data so Hillard Heintze could use demographic data for their analyses.

**Image 1: Allegation Duplications of Case 14-0011**

ActivityId	CaseNum	DOC	Perso	MORC	MORDescription
1263505	14-0011	1/9/2014	1521	314.39-2f	PERFORMANCE OF DUTY - GENERAL
1263505	14-0011	1/9/2014	1521	314.39-2f	PERFORMANCE OF DUTY - GENERAL
1263505	14-0011	1/9/2014	1521	314.39-2f	PERFORMANCE OF DUTY - GENERAL
1263505	14-0011	1/9/2014	1521	314.39-2f	PERFORMANCE OF DUTY - GENERAL
1263505	14-0011	1/9/2014	1540	314.39-2f	PERFORMANCE OF DUTY - GENERAL
1263505	14-0011	1/9/2014	1540	314.39-2f	PERFORMANCE OF DUTY - GENERAL
1263505	14-0011	1/9/2014	1540	314.39-2f	PERFORMANCE OF DUTY - GENERAL
1263505	14-0011	1/9/2014	1540	314.39-2f	PERFORMANCE OF DUTY - GENERAL
1263505	14-0011	1/9/2014	1540	314.39-2f	PERFORMANCE OF DUTY - GENERAL
1263505	14-0011	1/9/2014	223	314.39-2f	PERFORMANCE OF DUTY - GENERAL
1263505	14-0011	1/9/2014	223	314.39-2f	PERFORMANCE OF DUTY - GENERAL
1263505	14-0011	1/9/2014	223	314.39-2f	PERFORMANCE OF DUTY - GENERAL
1263505	14-0011	1/9/2014	223	314.39-2f	PERFORMANCE OF DUTY - GENERAL
1263505	14-0011	1/9/2014	223	314.39-2e	PERFORMANCE OF DUTY - UNINTENTIONAL/IMPROPER SEARCH, SEIZURE, OR ARREST
1263505	14-0011	1/9/2014	223	314.39-2e	PERFORMANCE OF DUTY - UNINTENTIONAL/IMPROPER SEARCH, SEIZURE, OR ARREST
1263505	14-0011	1/9/2014	223	314.39-2e	PERFORMANCE OF DUTY - UNINTENTIONAL/IMPROPER SEARCH, SEIZURE, OR ARREST
1263505	14-0011	1/9/2014	223	314.39-2e	PERFORMANCE OF DUTY - UNINTENTIONAL/IMPROPER SEARCH, SEIZURE, OR ARREST
1263505	14-0011	1/9/2014	276	314.39-2f	PERFORMANCE OF DUTY - GENERAL
1263505	14-0011	1/9/2014	276	314.39-2f	PERFORMANCE OF DUTY - GENERAL
1263505	14-0011	1/9/2014	276	314.39-2f	PERFORMANCE OF DUTY - GENERAL
1263505	14-0011	1/9/2014	276	314.39-2f	PERFORMANCE OF DUTY - GENERAL
1263505	14-0011	1/9/2014	131	314.39-2f	PERFORMANCE OF DUTY - GENERAL
1263505	14-0011	1/9/2014	131	314.39-2f	PERFORMANCE OF DUTY - GENERAL
1263505	14-0011	1/9/2014	131	314.39-2f	PERFORMANCE OF DUTY - GENERAL
1263505	14-0011	1/9/2014	131	314.39-2f	PERFORMANCE OF DUTY - GENERAL

**Image 2: Vision Display of Case 14-0011**

Serial No	Employee	MOR Code	Synopsis	Finding
	Officer 1	314.39-2f - PERFORMANCE OF DUTY - GENERAL	Complainant alleged officers did not investigate a domestic battery that had occurred.	Exonerated
	Officer 2	314.39-2f - PERFORMANCE OF DUTY - GENERAL	Complainant alleged officers did not investigate a domestic battery that had occurred.	Exonerated
	Officer 3	314.39-2f - PERFORMANCE OF DUTY - GENERAL	Complainant alleged officers did not investigate a domestic battery that had occurred.	Exonerated
	Officer 4	314.39-2e - PERFORMANCE OF DUTY - UNINTENTIONAL/IMPROPER SEARCH, SEIZURE, OR ARREST	Complainant alleged he was falsely arrested.	Exonerated
	Officer 4	314.39-2f - PERFORMANCE OF DUTY - GENERAL	Complainant alleged officers did not investigate a domestic battery that had occurred. .	Exonerated
	Officer 5	314.39-2f - PERFORMANCE OF DUTY - GENERAL	Complainant alleged officers did not investigate a domestic battery that had occurred.	Exonerated

Since discovering the issue, the OPD has worked with the City of Oakland IT Department to create a cleaner data pull that includes an allegation key that allows anyone to easily determine if there are any duplicates in the data. This data pull lives in the PowerBI Report Server and access is provided to those in

the Risk Analysis Unit and Internal Affairs. To pull the data, all one must do is enter a date range. Image 3 below provides the first few rows and columns of data for cases that came to a finding from 1/1/2021 to 1/20/2021. The data pull provides case specific information and officer specific information (not included in the image). This data can be extracted to an Excel spreadsheet for easy analysis. Given the problems with duplication in the past, an “Allegation Key” is included in the dataset. This “Allegation Key” is unique for every allegation. If there are duplicates in the data, they can easily be found based on this key. The following fields are included in this data pull: case number, date of complaint, approval date, intake date, allegation key, violation, violation description, violation class, finding, investigation type, complaint made by, concurrent CPRA investigation, discipline, suspension days, days held in abeyance, synopsis, subject key, subject last name, subject first name, subject serial number, subject DOB, classification title, race code, gender code, civilian indicator, assignment at time of complaint, rank at time of complaint, current classification, current classification start date, hire date, sworn date, investigator first name, investigator last name, investigator serial number.

**Image 3: PowerBI Internal Affairs Data Pull**

Case Number	Date Of Complaint	Approval Date	Intake Date	Allegation Key	Violation	Violation Descp	Violation Class	Finding	Investigation Type	Complaint Made By	Concurrent CPRA Investigation	Discipline	Suspension Days	Days Held In Abeyance
19-0813	8/9/2019	1/7/2021	8/9/2019	48546	000.01-0b	SERVICE COMPLAINT	0	Admin Closure	Administrative Closure	Complainant				
20-0079	1/23/2020	1/6/2021	1/23/2020	55827	314.04-2a	CONDUCT TOWARDS OTHERS - Unprofessional Conduct in Violation of AI 71	Class II	Unfounded	Internal Affairs Investigation		NO			
20-0079	1/23/2020	1/6/2021	1/23/2020	56365	314.04-2a	CONDUCT TOWARDS OTHERS - Unprofessional Conduct in Violation of AI 71	Class II	Unfounded	Internal Affairs Investigation		NO			
20-0086	1/24/2020	1/8/2021	1/24/2020	51792	370.45-1e	REPORTS AND BOOKINGS	Class I	Sustained	Internal Affairs Investigation		BLAN	Termination		

The Risk Analysis Unit continues to work with the City IT Department to improve the data pull and add additional fields. This data is at a minimum pulled monthly and used for the Monthly Risk Analysis Report. If there were issues with the data pull, they would be discovered during this process.

### Sustainability

The above data pull was created by the City’s IT Department lives on the PowerBI Report Server and is accessible at any time to anyone who is given access. That access currently includes the Risk Analysis Unit, members of Internal Affairs, and the IT Department. The data is pulled monthly and is an integral part of the Risk Management Meeting process. Its use is memorialized in the Risk Management Policy.

## Appendix 2: Investigation Type Definitions

The analyses in the main report include all investigation types. The definitions can be found below.

**Internal Affairs (IA) Investigation** – A formal investigation into allegations of misconduct that is conducted within the Internal Affairs Division. These investigations typically involve one or more of the following: Class I allegations of misconduct, Level 1 uses of force, involve violations of a criminal statute, involves many subjects or witnesses, or any case at the discretion of the IAD Commander.

**Division Level Investigation (DLI)** – A formal investigation into allegations of misconduct that is conducted outside the Internal Affairs Division. DLIs are subject to the same investigative requirements as those conducted by IAD investigators. DLIs, typically, involve only Class II allegations of misconduct; however, investigations involving Class I allegations may be sent out as a DLI upon approval of the IAD Commander.

**IA/DLI Summary Finding** - A Summary Finding is an abbreviated internal investigation in which a finding can be reached without conducting a full formal internal investigation because the correct finding can be determined with no or minimal follow-up and based on the existing documentation, evidence, statements, and crime information data (e.g., Offense Report, Use of Force Report, video or digital recordings, complainant's statement, radio purge, LRMS records). See Policy 21-01 Internal Affairs Policy and Procedure Manual.

**Administrative Closure** - A recommendation to close the complaint without investigation or coming to a finding. Often used for service complaints, complaints against outside-agency personnel, or where allegations do not rise to the level of an MOR violation. See DGO M-03, IV, B, 3.

**Informal Complaint Resolution** - A process for expediting the resolution of less-serious (Class II) complaints against members where there is no indication of a pattern of misconduct and where the complainant agrees to the ICR process. See DGO M-03.1, Informal Complaint Resolution Process.

### Appendix 3: Cases by Number of Allegations

Table 1 below provides a breakdown of cases that Internal Affairs intakes by complaint date for sworn employees. These data exclude complaints that involve collision, pursuit, and force board findings.

**Table 1: Case Breakdown of Internal Affairs Complaints for Sworn Employees**

	White		Black		Hispanic		Asian/ Filipino		Other/ Unknown		Total
	%	n	%	n	%	n	%	n	%	n	n
2014	45%	293	17%	112	22%	142	16%	106	0%	3	656
2015	43%	312	16%	118	23%	166	16%	117	2%	12	725
2016	37%	320	20%	172	23%	201	16%	141	3%	26	860
2017	40%	443	15%	172	24%	270	18%	204	3%	30	1,119
2018	36%	323	16%	141	27%	241	18%	159	3%	28	892
2019	31%	321	16%	172	29%	309	19%	200	4%	46	1,048
2020	33%	483	14%	199	30%	437	18%	265	4%	62	1,446
2021	31%	339	16%	181	30%	334	19%	209	3%	38	1,101
Total	36%	2,834	16%	1,267	27%	2,100	18%	1,401	3%	245	7,847

Compared to Table 2 below of the demographics of sworn employees in the Department, the demographics of complaints closely mirrors the demographics of the Department.

**Table 2: Demographics of Sworn Employees**

As of:	White		Black		Hispanic		Asian/ Filipino		Other/ Unknown		Total
	%	n	%	n	%	n	%	n	%	n	n
Jun 26, 2014	43%	312	19%	136	20%	148	15%	108	4%	27	731
Mar 27, 2015	42%	288	19%	130	22%	155	14%	94	3%	24	691
Jan 31, 2016	39%	298	18%	140	23%	178	16%	124	3%	24	764
Feb 28, 2017	40%	301	18%	134	24%	182	15%	117	4%	24	762
Jan 31, 2018	39%	288	17%	129	25%	183	17%	123	3%	20	743
Sep 30, 2019	36%	270	17%	127	27%	205	17%	127	3%	22	751
Jun 30, 2020	35%	259	17%	122	28%	203	17%	127	3%	23	734
Sep 30, 2021	33%	228	18%	127	27%	191	18%	127	3%	22	695

Concerns were raised about whether there were disparities in the number of allegations per case by race. The below chart is for officers whose case came to a finding from 2014-2021. As can be seen from Table 3 below, the number of allegations per case is consistent across races with no large disparities.

**Table 3: Complaints for Sworn Employees by Number of Allegations per Case**

	White		Black		Hispanic		Asian/ Filipino		Other/ Unknown		Total	
	%	n	%	n	%	n	%	n	%	n	%	n
1	64%	1,849	63%	822	61%	1,316	63%	864	61%	146	63%	4,997
2	21%	606	22%	292	23%	488	22%	301	22%	53	22%	1,740
3	9%	261	10%	132	10%	210	9%	121	11%	27	9%	751
4	4%	105	3%	43	4%	93	3%	47	4%	10	4%	298
5	1%	32	1%	13	1%	22	1%	20	1%	2	1%	89
6	1%	18	0%	6	0%	8	1%	13	1%	2	1%	47
7	0%	9	0%	1	0%	4	1%	7	0%	0	0%	21
8	0%	3	0%	1	0%	4	0%	0	0%	1	0%	9
9	0%	2	0%	1	0%	0	0%	1	0%	0	0%	4
11	0%	1	0%	0	0%	1	0%	2	0%	0	0%	4
Total	100%	2,886	100%	1,311	100%	2,146	100%	1,376	100%	241	100%	7,960

## **Appendix 4: Discipline by Investigation Type**

Since differentiating by investigation type revealed significant differences for case outcomes, the same analyses were conducted for discipline for 2018-2021. Expected outcomes were calculated and a chi-square test was used to determine whether there were significant differences in discipline between white officers and officers of other races for Internal Affairs and Division Level Investigations. None of the analyses revealed significant differences.

**Table 1: 2018-2021 DLI/IAD Discipline Chi-Square for White v Black Officers**

	Counseling		Written Reprimand		Suspension		Termination		Chi-Square Value	p
	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected		
DLI										
White	37% (28)	38% (29)	41% (31)	38% (29)	22% (17)	24% (18)	0% (0)	1% (1)	1.95	0.583
Black	40% (24)	38% (23)	33% (20)	38% (23)	25% (15)	24% (14)	2% (1)	1% (0)		
IAD										
White	10% (8)	13% (10)	32% (25)	28% (22)	45% (35)	47% (36)	13% (10)	13% (10)	3.37	0.338
Black	20% (5)	13% (3)	16% (4)	28% (7)	52% (13)	47% (12)	12% (3)	13% (3)		

**Table 2: 2018-2021 DLI/IAD Discipline Chi-Square for White v Hispanic Officers**

	Counseling		Written Reprimand		Suspension		Termination		Chi-Square Value	p
	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected		
DLI										
White	37% (28)	39% (30)	41% (31)	37% (28)	22% (17)	20% (18)	0% (0)	0% (0)	0.79	0.852
Hispanic	42% (30)	39% (28)	34% (24)	37% (27)	24% (17)	20% (16)	0% (0)	0% (0)		
IAD										
White	10% (8)	9% (7)	32% (25)	32% (25)	45% (35)	47% (37)	13% (10)	12% (9)	0.73	0.866
Hispanic	6% (2)	9% (3)	31% (10)	32% (10)	53% (17)	47% (15)	9% (3)	12% (4)		

**Table 3: 2018-2021 DLI/IAD Discipline Chi-Square for White v Asian/Filipino Officers**

	Counseling		Written Reprimand		Suspension		Termination		Chi-Square Value	p
	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected		
DLI										
White	37% (28)	38% (29)	41% (31)	41% (31)	22% (17)	20% (15)	0% (0)	1% (1)	2.12	0.548
Asian/Filipino	40% (19)	38% (18)	40% (19)	41% (19)	17% (8)	20% (10)	2% (1)	1% (0)		
IAD										
White	10% (8)	10% (8)	32% (25)	32% (25)	45% (35)	45% (35)	13% (10)	13% (10)	0.09	0.993
Asian/Filipino	11% (2)	10% (2)	32% (6)	32% (6)	47% (9)	47% (9)	11% (2)	11% (2)		

**Table 4: 2018-2021 DLI/IAD Discipline Chi-Square for White v Other/Unknown Officers**

	Counseling		Written Reprimand		Suspension		Termination		Chi-Square Value	p
	Observed	Expected	Observed	Expected	Observed	Expected	Observed	Expected		
DLI										
White	37% (28)	37% (28)	41% (31)	43% (32)	22% (17)	21% (16)	0% (0)	0% (0)	1.25	0.741
Other/Unknown	36% (4)	37% (4)	55% (6)	43% (5)	9% (1)	21% (2)	0% (0)	0% (0)		
IAD										
White	10% (8)	11% (8)	32% (25)	33% (25)	45% (35)	45% (35)	13% (10)	12% (9)	0.53	0.912
Other/Unknown	20% (1)	11% (1)	40% (2)	33% (2)	40% (2)	45% (2)	0% (0)	12% (1)		