TO:	COMMUNITY SAFETY ADVISORY COMMISSION MEMBERS
FROM:	VLAD KOGAN
SUBJECT:	ANALYSIS OF CPD APPLICANT DATA
DATE:	JULY 25, 2018
CC:	BRYAN CLARK
	AMY DELONG
	THOMAS QUINLAN
	GEORGE SPEAKS
	ELON SIMMS

MEMO

Dear Fellow Commissioners,

Several members of the commission requested a more detailed analysis of Columbus police recruitment data — including potential racial disparities at various steps during the application process — and Bryan Clark asked me to help in preparing one. This memo is the result. A number of people, including Columbus Civil Service Commission Executive Director Amy DeLong, Public Safety Assessment Manager Elizabeth Reed, and CPD HR Manager Miranda Vollmer have been extremely helpful in providing the necessary data and helping me understand the nuances of the hiring process. However, I stress that any errors contained herein and the interpretations offered are my own.

In what follows, I present the following information for individuals who applied for a spot at the CPD academy in 2017 and 2016: (1) the geography of CPD applicants; (2) major bottlenecks at which the largest number of applicants are weeded out (both overall, and by subgroup); and (3) statistical analyses of racial and gender differences at each step of the application process. I should emphasize that the analysis is constrained by the available data. For example, the processing of the 2017 applications is still incomplete, so the snapshot I present below is based on the current status of each applicant, which may change. In addition, some data (e.g., the outcome of the polygraph exam for applicants who are subsequently interviewed by the Oral Board and sent for consideration to the public safety director) are currently not tracked in a manner that makes them amenable to systematic evaluation. Please keep these limitations in mind as you review the information below.

When individuals submit their applications, the information is initially reviewed to ensure that each applicant meets the minimum qualifications. For example, applicants are rejected immediately if they lack a driver's license, fall short of the minimum age, or are not U.S. citizens. I exclude the small number of applicants who fail this initial qualification review from all analyses that follow.

Nevertheless, given the sizeable Somali community in Columbus that likely contains a large number of noncitizens, I took a quick look at how the CPD minimum qualifications compare to those used by police departments in the largest 15 U.S. cities by population. This information is summarized in Table 1.

Although our citizenship requirement is not unusual, Chicago, Los Angeles, San Diego, and San Jose all allow legal permanent residents to apply (although the latter three cities require that these applicants must have applied for citizenship).

Since the question of residency came up during our conversations, I found it interesting that large cities also vary on this dimension. Although Ohio state law prohibits cities from requiring employees to live within their boundaries, several large cities in other states have such a requirement in place. In addition, Forth Worth requires officers to establish residency within 30 minutes of their designated report-in station within six months of employment.

T	able 1. Selected Qualification I	Requirements
City	Citizenship Required?	Residency Required?
New York	Yes	Yes
Los Angeles	No^1	No
Chicago	No	Yes
Houston	Yes	No
Phoenix	Yes	No
Philadelphia	Yes	Yes
San Antonio	Yes	No
San Diego	No^1	No
Dallas	Yes	No
San Jose	No^{1}	No
Austin	Yes	No
Jacksonville	Yes	No
San Francisco	Yes	No
Fort Worth	Yes	No ²

¹ Must be eligible and have applied for citizenship.

² Must live within 30 minutes of a designated report-in station within six months of employment.

I. Geography of Applicants

Table 2 provides a basic summary of where applicants (and the subset who are ultimately offered a spot at the police academy) come from, using the ZIP codes from the applications. Overall, between 50% and 60% of CPD applicants live in a ZIP code that is at least partially within the city of Columbus. Another 15% live in one of the counties that make up the Columbus metropolitan area. The rest apply from elsewhere, both from within and outside of Ohio.

	Applicants (2017)	Eligible for Academy (2017)	Applicants (2016)	Eligible for Academy (2016)							
Columbus City*	55%	52%	57%	60%							
Metro Area	15%	15%	14%	19%							
Outside Metro Area	26%	22%	29%	20%							
Unknown	4%	11%	0%	0%							

Table 2. Geography of CPD Applicants

*Based on address in ZIP code that is at least partially in the city of Columbus. However, individual applicants might live in portion of ZIP code that lies outside of the city.

I have also attached an appendix that provides more detailed information for the ZIP codes that are at least partially within the city of Columbus. The appendix includes some basic demographic information about each ZIP code taken from the 2016 American Community Survey, reports the total number of applicants from each area (both overall, and by race), and calculates an "applicant success percentage," which is defined as the fraction of initial applicants who make it to the end of the process and become academy-eligible.

II. Application Process

Table 3 walks you through each step in the application process — in chronological order — that follows the initial qualification screening. Applicants may be rejected or withdraw at any point in this process, and the table summarizes the most common reasons for why candidates fail to make it past each step.

Terminal Step Reached	Common Reasons for Disqualification
Did Not Pass Preliminary	Applicant revealed disqualifying information (e.g., drug use,
Screening	criminal conviction) on preliminary background questionnaire.
Did Not Complete All Exams	Applicant was a "no show" for multiple-choice, written exam,
	or oral (COPE) exam or withdrew prior to exams.
Did Not Pass Multiple-	Self-explanatory.
Choice Exam	
Did Not Pass Writing Exam	Self-explanatory.
Did Not Pass Oral Exam (COPE)	Self-explanatory.
Did Not Complete Physical Test	Applicant was a "no show" for the physical test.
Did Not Pass Physical Test	Self-explanatory.
Fell Below 80 Band	COPE score placed applicant below the 80 band.
Did Not Submit Personal	Applicant withdrew application or did not complete the
History Questionnaire	personal history questionnaire (PHQ) by the deadline.
Did Not Pass Personal	Applicant revealed disqualifying information on PHQ. The
History Questionnaire	most common reasons for disqualification in 2016 were
Review	marijuana use within the previous year and too many traffic
	citations within the previous four years.
Did Not Schedule Polygraph	Applicant withdrew application or was not processed because
Did Not Successfully	Applicant revealed discuslifying information during the
Complete Polygraph	nolygraph or was caught trying to distort the results. Note that
complete i orygruph	applicants who do not reveal disqualifying information but
	who are judged to be deceptive (or have an inconclusive
	polygraph result) are not automatically disqualified at this
	point. Information on polygraph results for applicants who
	move to the subsequent steps is unavailable.
Did Not Pass Background	Applicant withdrew application or background investigation
Verification	revealed disqualifying information not initially reported on the
	PHQ.
Did Not Complete Oral Board	Applicant withdrew, failed to schedule the Oral Board
	appearance, or did not show up. Note that information on the

Table 3. Overview	of Application	Process
-------------------	----------------	---------

Terminal Step Reached	Common Reasons for Disqualification
	outcome of the Oral Board hearing is not available in the data
	I analyzed.
Did Not Pass OPOTC Fitness	Self-explanatory.
Test	
Did Not Receive Conditional	No information is available for why offers were not made by
Offer from Safety Director	the safety director for most rejected applicants.
Did Not Pass Health/Stress	Self-explanatory.
Test	
Did Not Pass Psychological	Self-explanatory.
Exam	

Table 4 below summarizes the percent of applicants who are rejected (or withdraw voluntarily) at each of the above steps. This information is broken down separately by year, and by applicant race and gender.

When reading the table, note that percent differences between racial or gender groups in each row are not necessarily evidence of racial disparities. Similarly, a *lack* of differences at each step is not necessarily evidence that racial disparities are absent. Since the number of applicants who are "at risk" of getting rejected at each step depends on how many were rejected earlier, it is difficult to directly compare the percentages or to draw clear conclusions from them. Although the table shows the steps at which the largest share of applicants were removed from the process, this descriptive data alone does not speak to the presence (or absence) of racial disparities.

To examine such disparities, I have also estimated a series of statistical models that predict the probability that an applicant moves on to the next step *among applicants who made it thus far*. I present the results of these models as a series of bar plots in the appendix. At each step, I compare the probability of advancing for white vs. nonwhite applicants and for male vs. female applicants. If the box for nonwhite or female applicants is shaded in red, this means the difference is statistically significant (at the conventional 5 percent level) when compared to the white or male applicants. Although the full results are reported in the appendix, I will highlight several findings likely to be of interest in the next section.

		2017 Applicant	S	2016 Applicants			
Terminal Step Reached	All Applicants	Nonwhite Applicants	Female Applicants	All Applicants	Nonwhite Applicants	Female Applicants	
Did Not Pass Preliminary Screening	3.5%	3.9%	2.9%	3.8%	5.5%	3.6%	
Did Not Complete All Exams	47.0%	49.4%	51.2%	49.7%	52.1%	49.9%	
Did Not Pass Multiple-Choice Exam	12.0%	15.0%	10.3%	10.7%	12.8%	10.8%	
Did Not Pass Writing Exam	3.7%	5.3%	2.4%	4.8%	6.7%	1.6%	
Did Not Pass Oral Exam (COPE)	4.7%	3.4%	2.4%	4.6%	3.0%	4.5%	
Did Not Complete Physical Test	7.0%	4.3%	10.5%	6.0%	3.9%	6.8%	
Did Not Pass Physical Test	3.6%	3.0%	5.7%	4.1%	2.9%	5.2%	
Fell Below 80 Band	4.6%	3.3%	3.1%	4.2%	3.0%	4.3%	
Did Not Submit Personal History Ouestionnaire*	6.0%	6.1%	2.6%	2.3%	1.8%	2.9%	
Did Not Pass Personal History Questionnaire Review	0.5%	0.4%	0.0%	1.1%	1.1%	0.5%	
Did Not Schedule Polygraph	0.0%	0.0%	0.0%	0.3%	0.3%	0.5%	
Did Not Successfully Complete Polygraph	1.7%	1.0%	1.7%	1.8%	1.7%	2.5%	
Did Not Pass Background Verification	0.2%	0.1%	0.0%	0.4%	0.3%	0.7%	
Did Not Complete Oral Board	0.4%	0.3%	0.2%	0.3%	0.6%	0.0%	
Did Not Pass OPOTC Fitness Test	0.2%	0.1%	0.2%	0.3%	0.3%	0.0%	
Did Not Receive Conditional Offer from	2.5%	2.20/	4 20/	1 70/	1 50/	0.5%	
Dilly in the second second	2.5%	2.2%	4.3%	1.7%	1.5%	0.5%	
Did Not Pass Health/Stress Test	0.1%	0.2%	0.0%	0.3%	0.2%	0.5%	
Did Not Pass Psychological Exam	0.4%	0.7%	1.0%	0.2%	0.4%	0.9%	
Eligible for Academy	1.8%	1.2%	1.4%	3.5%	1.8%	4.5%	

Table 4. Terminal Step Reached by CPD Applicants

* Includes applicants still being processed or who have not yet received decision for 2017.

III. Racial Disparities

1. The largest fraction of applicants is rejected for failing to complete all required exams, and the "no show" rates are significantly higher for nonwhite applicants. However, efforts to reduce "no show" rates <u>overall</u> will not necessarily increase the diversity of the applicant pool or narrow these differences.

Figure 1 below plots the probability of completing the multiple-choice, written, and oral (COPE) exams by applicant subgroup. In both 2016 and 2017, nonwhite applicant were about five percentage points less likely to show up on exam day. Since so many applicants are lost at this point, even this relatively small disparity substantially limits the diversity of the remaining applicant pool going forward.





As we discussed at our previous meeting, Columbus has taken a number of steps to try to reduce the "no show" rates for the qualification exams. While applicants in previous years simply received e-mail reminders, the city is now sending out postcards and is moving forward with a text message reminder system as well. Note, however, that while these changes might decrease the "no show" rates *overall*, they may not necessarily close the racial gaps between groups. Indeed, if postcard or text reminders increase test attendance among white or male applicants more than among nonwhite or female applicants, this could actually *reduce* the diversity of the applicant pool. For example, a recent experiment in Chattanooga (Tennessee), where the city sent a random subset of residents postcards encouraging them to apply for the police academy, showed that the postcards produced varying effects depending on the race and gender of the targeted recipient.¹ It is important that changes made to increase test attendance be evaluated to

¹ Elizabeth Linos, 2018, "More Than Public Service: A Field Experiment on Job Advertisements and Diversity in the Police," *Journal of Public Administration Research and Theory* 28(1): pp. 67-85, <u>https://academic.oup.com/jpart/article/28/1/67/4590248</u>.

see how they impact the diversity of the applicant pool, in addition to reducing the overall "no show" rates.

2. Minority applicants are significantly less likely to pass both the multiple-choice and written portions of the exams. Reducing the minimum score necessary for passage on the multiple-choice exam is unlikely to significantly increase diversity.

As we discussed at our last meeting, minority applicants are significantly less likely to pass either the multiple-choice (Figure 2) or written (Figure 3) portions of the exam. (Female applicants are actually somewhat more likely to pass the written exam.)

Figure 4 plots the average multiple-choice exam score —59 is necessary for passage — and shows that nonwhite applicants score, on average, four points lower. This might lead one to conclude that simply lowering the minimum score required for passage by four points would increase the diversity of the applicant pool. It turns out this intuition is incorrect.

In Table 5, I use the raw multiple-choice scores to reconstruct the "counterfactual" pool of passing applicants using alterative score cutoffs. Lowering the minimum passing score to 55 does not appreciably increase the diversity of the applicant pool because the racial composition of applicants with scores in the 55-58 range is not different from the composition of applicants that receive a 59 or higher.

As the final column in the table shows, lowering the minimum passing score further to 50 would increase the diversity of the passing applicants by a somewhat larger extent. However, the actual impact of this change on diversity would likely be small because performance on the multiple-choice exam is also highly predictive of performance on the subsequent written exam and moderately predictive of performance on the oral (COPE) exam. My estimates suggest that between 30% and 40% of applicants with multiple-choice scores in the 50-59 range would still fail the written exam, and between 20% and 25% would fail the oral exam. Changing the multiple-choice exam would thus likely do little to increase diversity unless changes are simultaneously made to the written and oral exams as well.



Figure 2. Passage Rates on Multiple-Choice Exam



Figure 3. Passage Rates on Writing Exam



Figure 4. Average Score on Multiple-Choice Exam

2017	Min. Score: 59	Min. Score: 55	Min. Score: 50
White	71.0%	70.5%	68.8%
Nonwhite	29.0%	29.5%	31.2%
Male	83.9%	84.3%	84.0%
Female	16.1%	15.7%	16.0%
2016	Min. Score: 59	Min. Score: 55	Min. Score: 50
White	71.4%	70.9%	68.9%
Nonwhite	28.6%	29.1%	31.1%
Male	83.3%	83.2%	83.2%
Female	16.7%	16.8%	16.8%

Table 5. Changes in Applicant Pool Using AlternativeMultiple-Choice Exam Passage Cutoffs

3. At a previous meeting, several commissioner expressed concern that "most" minority applicants were disqualified at the "discretionary" steps in the application process. The data do not bear out this conclusion: Most minority applicants are disqualified earlier in the application process, and there is no consistent evidence of racial disparities at the discretionary steps.

The steps during the application process at which the most discretion is exercised appear to be the oral (COPE) exam, the oral board interviews, and the employment offers made by the public safety director. It is worth noting that almost 70% of minority applicants are disqualified *prior* to the COPE exams (see Table 4 above).

Figure 5 plots the passage rates on the oral (COPE) exam, while Figure 6 plots the average of the individual COPE exam scores by subgroup. Neither figure reveals any evidence of racial disparities in this step of the application process.

Although some applicants fail to advance past the Oral Board, this usually occurs because they withdraw at this step in the process or fail to schedule (or appear for) their interview. Results of the interviews are not tracked in a manner that lends themselves to statistical analysis, so I cannot speak to potential disparities that may occur during the Oral Board.

Figure 6 does show that minority applicants are about 10 percentage points less likely to receive a conditional offer from the safety director, although this difference is not significant for either 2017 or 2016 and could arise due to random chance. The safety director's decision is based in part on the outcome of the background investigation, the polygraph exam, and the Oral Board interview, so it is possible that negative (but not automatically disqualifying) information is revealed or negative recommendations are made during those steps more often for minority applicants.



Figure 5. Passage Rates on Oral Exam



Figure 6. Average Score on Oral Exam



* Excluding applicants still being processed

Figure 7. Probability of Receiving Offer from Safety Director

4. Bonus points awarded to military veterans disproportionately benefit male, white applicants. The consequence of this disparity on the diversity of the applicant pool is probably limited, however.

Under Columbus Civil Service Commission Rule VII(E), veterans receive extra points on their final passing exam score, with a larger bonus awarded to disabled veterans. In the CPD application process, these points are added to the oral (COPE) exam, since this is the only portion of testing where applicants are awarded a numerical (rather than a pass/fail) score. The COPE score determines an applicant's relative position and probability of advancing to subsequent stages of the application process.

Figure 8 plots the percent of all applicants who are eligible for the veteran's preference points. It shows that white and male applicants are significantly more likely to qualify for this bonus. Note, however, that the bonus points are awarded only to applicants who pass the multiple-choice, written, and oral exams as well as physical test, so examining all applicants may paint a misleading picture. For this reason, Figure 9 plots the eligibility rates for veteran's preference points only among applicants who pass all of the required exams. The figure continues to reveal both racial and gender disparities, although the differences between white and nonwhite applicants are no longer significant at conventional levels.

The practical impact of these disparities is probably limited however, because the veteran's preference points will affect an applicant's prospects only if his or her score is shifted up to the next test performance "band" as a result. This is true only for a subset of all applicants who receive the bonus points, although I do not have the exact breakdown.



Figure 8. Percent of Applicants Eligible for Veteran's Preference Points





5. Minority and female applicants are significantly more likely to fail the psychological exam. Because these racial and gender disparities are large in absolute terms and occur at the very end of the application process, the differences in passage rates are likely consequential for the overall diversity of the academy-eligible pool.

As Figure 10 below indicates, both nonwhite and female applicants are 15% to 30% less likely to pass the psychological exam. Since these disparities are large, persistent (present both in 2016 and 2017), and occur at the very final step in the application process, they likely to be consequential.

The staff I spoke with seemed surprised to learn about these gaps and did not immediately know of any plausible reasons that may explain them.



Figure 10. Passage Rates on Psychological Exam

Appendix

ZIP Code Summary

2017 Applicants

Data from 2016 American Community Survey						2017 CPD Applicant Data					
ZIP	White	Black	Hispanic	Median	Poverty	Total	Nonwhite	Female	Applicants per 10K	Academy	Applicant Success
Code	Percent	Percent	Percent	Income	Rate	Applicants	Applicants	Applicants	Adult Population	Eligible	Percentage
43002	85	4.7	4.6	\$79,060	0.5	0	0	0	0	0	NA
43004	66.3	26.4	1.2	\$70,319	10.2	43	17	12	23.6	0	0
43016	68.9	3.2	4.5	\$88,284	3.4	28	11	2	10.7	1	3.6
43017	75.3	3.2	5.9	\$98,584	6.5	19	7	2	6.7	1	5.3
43026	83	5.2	4	\$80,297	7.4	67	25	8	15.7	2	3
43035	74.8	6	4	\$108,948	5.3	12	4	1	6.9	0	0
43054	80.7	5.8	2	\$112,333	2	14	6	3	8.4	0	0
43065	85.1	4.3	1.8	\$116,187	2.8	16	5	3	5.6	0	0
43068	60.6	27	5.5	\$57,505	10.3	77	35	20	19	2	2.6
43081	77.9	9.5	3	\$75,047	7.4	67	27	10	15.2	2	3
43082	87.5	4.4	2	\$113,539	2.2	15	3	2	6.4	1	6.7
43085	82.4	5.4	5.1	\$76,860	5	10	4	1	5.4	1	10
43109	99.2	0	0	\$54,375	5.9	0	0	0	0	0	NA
43110	66.6	26.3	2.5	\$66,347	8.9	58	26	11	21.9	2	3.4
43119	77.4	7.4	6.9	\$62,423	12.6	56	16	9	27.3	2	3.6
43123	89.5	4.9	1.4	\$63,004	9.7	103	15	9	22.2	1	1
43125	75.4	17.2	3	\$58,417	7.5	24	10	7	22	0	0
43137	95.8	1.7	1.3	\$50,694	20.2	1	0	0	6.5	0	0
43147	77.7	14.2	2.3	\$89,007	4	43	16	4	15.1	0	0
43201	75.2	10.9	4.6	\$26,473	53.9	34	15	4	13	0	0
43202	74.6	5.5	2	\$45,214	27	19	3	3	9.7	0	0
43203	20.2	68.6	3.9	\$24,819	43	3	1	2	5.5	0	0
43204	74.6	11.7	6.9	\$41,671	27.3	39	15	12	12.4	0	0
43205	28.7	57.2	2.8	\$30,988	36.8	10	8	3	10.6	0	0
43206	47	45.2	1.8	\$47,727	25.4	23	12	8	13.1	0	0
43207	64.8	25.2	4.4	\$41,324	24.6	54	27	10	15.2	0	0
43209	66.3	27	2.3	\$55,478	12.9	18	13	3	8.8	0	0

	Data from 2016 American Community Survey							2017	CPD Applicant Data		
ZIP	White	Black	Hispanic	Median	Poverty	Total	Nonwhite	Female	Applicants per 10K	Academy	Applicant Success
Code	Percent	Percent	Percent	Income	Rate	Applicants	Applicants	Applicants	Adult Population	Eligible	Percentage
43210	76.9	5	2.8	\$16,314	41	0	0	0	0	0	NA
43211	22	62.3	4	\$24,751	43.4	11	8	4	7.4	0	0
43212	89.5	2.1	2.1	\$64,626	9.1	10	4	0	6	0	0
43213	42.1	38.9	12.8	\$35,582	25.2	33	23	11	13.7	0	0
43214	87	4.6	2.3	\$66,653	8.3	15	6	4	6.9	0	0
43215	76.5	13	2.4	\$55,490	21.2	16	5	4	12.7	0	0
43217	75.3	17.2	2.1	\$38,380	28.2	2	0	0	13.1	0	0
43219	15.6	72.2	5.6	\$34,625	32.9	29	22	6	14.8	0	0
43220	82.7	3.2	3.5	\$62,833	7.5	20	4	3	9.3	1	5
43221	87.2	2.5	3.1	\$84,804	6.9	18	5	5	7.4	1	5.6
43222	66.5	19.5	6.9	\$25,750	38	2	1	0	7.6	0	0
43223	64.5	23.4	5.5	\$30,695	34.3	17	6	2	10.2	1	5.9
43224	43.7	39	6.1	\$34,597	28.1	43	26	14	13.7	0	0
43227	21.9	59.8	9.8	\$34,468	27.7	16	15	6	9.3	0	0
43228	65.1	14.1	14.6	\$41,866	25.1	83	36	16	21	1	1.2
43229	38.9	41.4	10.1	\$40,487	20.2	54	31	14	14.5	0	0
43230	72.3	17.5	3.2	\$70,822	6.6	57	26	6	13.3	3	5.3
43231	46	41.7	6.4	\$47,215	17	17	11	1	11.4	0	0
43232	33.4	57.5	4	\$36,310	23	54	45	11	17.3	0	0
43235	76	5	7.1	\$70,004	8.8	34	10	7	10.3	2	5.9
43240	68.7	3.4	6.6	\$64,417	6	6	2	2	19.3	0	0

2016 Applicants

Data from 2016 American Community Survey						2016 CPD Applicant Data					
ZIP	White	Black	Hispanic	Median	Poverty	Total	Nonwhite	Female	Applicants per 10K	Academy	Applicant Success
Code	Percent	Percent	Percent	Income	Rate	Applicants	Applicants	Applicants	Adult Population	Eligible	Percentage
43002	85	4.7	4.6	\$79,060	0.5	0	0	0	0	0	NA
43004	66.3	26.4	1.2	\$70,319	10.2	44	20	8	24.2	2	4.5
43016	68.9	3.2	4.5	\$88,284	3.4	29	8	3	11.1	2	6.9
43017	75.3	3.2	5.9	\$98,584	6.5	21	5	3	7.4	3	14.3
43026	83	5.2	4	\$80,297	7.4	70	18	5	16.4	3	4.3
43035	74.8	6	4	\$108,948	5.3	20	4	2	11.4	5	25
43054	80.7	5.8	2	\$112,333	2	11	2	1	6.6	1	9.1
43065	85.1	4.3	1.8	\$116,187	2.8	17	4	5	6	1	5.9
43068	60.6	27	5.5	\$57,505	10.3	81	51	18	20	1	1.2
43081	77.9	9.5	3	\$75,047	7.4	63	24	7	14.3	1	1.6
43082	87.5	4.4	2	\$113,539	2.2	15	2	3	6.4	1	6.7
43085	82.4	5.4	5.1	\$76,860	5	14	6	2	7.6	0	0
43109	99.2	0	0	\$54,375	5.9	0	0	0	0	0	NA
43110	66.6	26.3	2.5	\$66,347	8.9	61	28	14	23	1	1.6
43119	77.4	7.4	6.9	\$62,423	12.6	68	14	14	33.1	2	2.9
43123	89.5	4.9	1.4	\$63,004	9.7	103	14	15	22.2	3	2.9
43125	75.4	17.2	3	\$58,417	7.5	20	4	6	18.3	0	0
43137	95.8	1.7	1.3	\$50,694	20.2	0	0	0	0	0	NA
43147	77.7	14.2	2.3	\$89,007	4	49	21	9	17.2	1	2
43201	75.2	10.9	4.6	\$26,473	53.9	27	12	6	10.3	3	11.1
43202	74.6	5.5	2	\$45,214	27	16	1	2	8.2	2	12.5
43203	20.2	68.6	3.9	\$24,819	43	11	6	5	20.1	0	0
43204	74.6	11.7	6.9	\$41,671	27.3	47	17	7	14.9	1	2.1
43205	28.7	57.2	2.8	\$30,988	36.8	15	12	4	15.9	0	0
43206	47	45.2	1.8	\$47,727	25.4	19	11	7	10.8	1	5.3
43207	64.8	25.2	4.4	\$41,324	24.6	49	17	7	13.8	1	2
43209	66.3	27	2.3	\$55,478	12.9	24	17	6	11.7	1	4.2

	Data from 2016 American Community Survey							2016	CPD Applicant Data		
ZIP	White	Black	Hispanic	Median	Poverty	Total	Nonwhite	Female	Applicants per 10K	Academy	Applicant Success
Code	Percent	Percent	Percent	Income	Rate	Applicants	Applicants	Applicants	Adult Population	Eligible	Percentage
43210	76.9	5	2.8	\$16,314	41	4	2	1	71.9	0	0
43211	22	62.3	4	\$24,751	43.4	20	18	7	13.5	0	0
43212	89.5	2.1	2.1	\$64,626	9.1	16	3	1	9.6	0	0
43213	42.1	38.9	12.8	\$35,582	25.2	35	23	8	14.5	1	2.9
43214	87	4.6	2.3	\$66,653	8.3	16	4	1	7.4	1	6.2
43215	76.5	13	2.4	\$55,490	21.2	8	3	1	6.3	0	0
43217	75.3	17.2	2.1	\$38,380	28.2	4	1	0	26.2	0	0
43219	15.6	72.2	5.6	\$34,625	32.9	38	31	9	19.3	3	7.9
43220	82.7	3.2	3.5	\$62,833	7.5	22	9	2	10.2	0	0
43221	87.2	2.5	3.1	\$84,804	6.9	25	10	4	10.2	2	8
43222	66.5	19.5	6.9	\$25,750	38	1	1	1	3.8	0	0
43223	64.5	23.4	5.5	\$30,695	34.3	22	13	2	13.2	0	0
43224	43.7	39	6.1	\$34,597	28.1	42	29	13	13.3	0	0
43227	21.9	59.8	9.8	\$34,468	27.7	33	29	11	19.2	1	3
43228	65.1	14.1	14.6	\$41,866	25.1	83	32	16	21	3	3.6
43229	38.9	41.4	10.1	\$40,487	20.2	65	45	13	17.4	1	1.5
43230	72.3	17.5	3.2	\$70,822	6.6	76	37	11	17.7	3	3.9
43231	46	41.7	6.4	\$47,215	17	26	20	5	17.4	1	3.8
43232	33.4	57.5	4	\$36,310	23	66	53	13	21.2	0	0
43235	76	5	7.1	\$70,004	8.8	42	13	10	12.7	4	9.5
43240	68.7	3.4	6.6	\$64,417	6	3	1	0	9.6	0	0

ZIP Code Maps









Racial and Gender Differences at Each Step of Application Process

Approved to Test (2017)

Percent

Approved to Test (2016)



Took Tests (2017)

Took Tests (2016)





Passed Multiple–Choice Exam (2017)

Passed Multiple–Choice Exam (2016)

Passed Writing Exam (2017)

Passed Writing Exam (2016)



Passed Oral Exam (COPE) (2017)

Passed Oral Exam (COPE) (2016)



Took Physical (2017)

Took Physical (2016)



Passed Physical (2017)

Passed Physical (2016)









Returned Personal History Questionnaire by Deadline* (2017)

Percent





* Excluding applicants still being processed



Successfully Completed Polygraph (2017)

Successfully Completed Polygraph (2016)

Completed Oral Board (2017)

Completed Oral Board (2016)



Passed OPOTC Fitness Test (2017)





Granted Conditional Offer by Safety Director* (2017)

Percent

Granted Conditional Offer by Safety Director (2016)



* Excluding applicants still being processed

Passed Health/Stress Test (2017)







Passed Psychological Exam (2017)

Passed Psychological Exam (2016)