

# Baltimore Aerial Investigation Research Project

# Findings from Wave 2 Survey and Comparison to Early Launch Survey September 2021

Submitted by:
P. Ann Cotten, DPA, CPA | Director
Gabriela Wasileski, Ph.D.
Elias Nader, Ph.D.
Sarah Ficenec, Ph.D.

Schaefer Center for Public Policy
University of Baltimore – College of Public Affairs
1420 N. Charles Street
Baltimore, MD 21201
410.837.6188
acotten@ubalt.edu

September 30, 2021



# **ACKNOWLEDGEMENTS**

The following Schaefer Center staff members and University of Baltimore faculty members played key roles in the collection and analysis of the data used for the analysis included in this document.

- Dr. Ann Cotten, Director (Co-Principal Investigator)
- Dr. Gabriela Wasileski, (Co-Principal Investigator and Primary Report Author)
- Michelle Cantave, Survey Manager
- Dr. Sarah V. Ficenec, Research Associate (Primary Report Author)
- Dr. Elias Nader (Primary Report Author)

The research team is appreciative of the assistance from Seema Iyer and Cheryl Knott at the Baltimore Neighborhood Indicators Alliance - University of Baltimore, Jacob France Institute.

This research was funded by Arnold Ventures, which also funded the AIR pilot program and the related evaluations being conducted by RAND and The Policing Project at New York University School of Law.



#### ABOUT THE SCHAEFER CENTER FOR PUBLIC POLICY

Established in 1985 with a mission to bring The University of Baltimore's academic expertise to bear in solving problems faced by government and nonprofit organizations, the Schaefer Center has grown into one of Maryland's preeminent policy centers offering invaluable assistance in support of Maryland's public sector.

Housed in The University of Baltimore's College of Public Affairs, the Schaefer Center complements its professional staff by drawing upon the expertise of faculty and students in the university's other three schools – Criminal Justice, Health and Human Services, Public and International Affairs – in its research, consulting and professional development work.

The Schaefer Center offers program evaluation, policy analysis, survey research, strategic planning, workload studies, opinion research, management consulting and professional development services. It is through the Schaefer Center that The University of Baltimore and the College of Public Affairs meet a central component of the University's mission of applied research and public service to the Baltimore metropolitan area and to the state of Maryland.

Since its creation more than 35 years ago, the Schaefer Center has completed over 500 research and professional development projects for various local, state and federal agencies, as well as nonprofit organizations. Through its newest program, the Maryland Certified Public Manager® Program offered to nonprofit and government managers, the Schaefer Center is building management capacity in Maryland's public organizations.

For information about working with the Schaefer Center, please contact the director, Ann Cotten, at 410-837-6188 or acotten@ubalt.edu.



# **TABLE OF CONTENTS**

Executive Summary	1
Findings	1
Awareness of the AIR Program	1
Support for the AIR Program	1
Beliefs about Privacy and the AIR Program	2
Attitudes about AIR Program Effectiveness	2
Perception of Police Legitimacy and Procedural Justice	2
Perception of Police Bias	2
Willingness to Partner with Police	2
Willingness to Contact Police	2
Perceptions of Neighborhood Social Cohesion	3
Perceptions of Neighborhood Safety	3
Fear of Being a Victim of Crime	3
Evolution of the Program	3
Introduction	4
Report Overview	5
Methodology	6
Research Topics	6
Sample and Sampling Procedure	6
Sample Demographics	8
Survey Topics and Analysis	10
Section I: Perceptions of Neighborhood Conditions and Crime – Overall Findings	11
Social Cohesion & Isolation	11
Perceptions of Neighborhood Safety	12
Fear of Being a Victim of a Crime	13
Summary with Comparison to Early Launch Survey	14
Section II: Perceptions of Neighborhood Conditions and Crime – Findings by Race and Neighborhoo	d Crime
Level	15
Social Cohesion & Isolation	15
Perceptions of Neighborhood Safety	17
Fear of Being a Victim of a Crime	18
Summary with Comparison to Early Launch Survey	19
Section III: Perceptions of AIR Program – Overall Findings	20
Awareness of the AIR Program	20
Knowledge of AIR Components	21
Support for the AIR Program	22
Support for Using the AIR Program for Specific Types of Safety Concerns or Crimes	25
Attitudes about the Effectiveness of the AIR Program	26
Beliefs about Privacy and the AIR Program	27
Summary with Comparison to Early Launch Survey	28
Section IV: Perceptions of AIR Program – Findings by Race and Neighborhood Crime Level	
Support for Continued Use of Surveillance Planes	29
Attitudes about the Effectiveness of the AIR Program	30
Beliefs about Privacy and the AIR Program	31
Summary with Comparison to Early Launch Survey	32
Section V - Perceptions of Police – Overall Findings	34



Perceptions of Police Legitimacy	34
Perceptions of Procedural Justice	35
Perceptions of Police Bias	36
Willingness to Partner with Police	37
Willingness to Contact Police	38
Summary with Comparison to Early Launch Survey	39
Section VI: Perceptions of Police – Findings by Race and Neighborhood Crime Level	
Perceptions of Police Legitimacy	40
Perceptions of Procedural Justice	41
Perceptions of Police Bias	42
Willingness to Partner with Police	43
Willingness to Contact Police	44
Summary with Comparison to Early Launch Survey	45
Summary of Findings	46
Perceptions of the AIR Program	47
Perceptions of Police	47
Perceptions of Neighborhood Conditions	48
Recommendations	48
Limitations	49
References	50
Appendix A: Sample and Sampling Procedure	52
Step One: Develop Crime/Poverty Index	52
Early Launch Survey: Data Collection	53
Wave 2 Survey: Data Collection	54
Appendix B: Sample Demographics	56
Appendix C: Survey Topics and Analysis	
Appendix D: Full Survey Instrument – Wave 2 Survey	63



# **TABLE OF FIGURES**

Figure 2: Social Cohesion & Interaction by Race and Neighborhood Crime Level	16
Figure 3: Perceptions of Neighborhood Safety by Race and Neighborhood Crime Level	17
Figure 4: Fear of Being a Victim by Race and Neighborhood Crime Level	18
Figure 5: Respondents "Keeping Up" with News about the AIR Planes	20
Figure 6: Percent of Responses to Items on Specific Knowledge of AIR Program	22
Figure 7: Respondents Who Would Support Use of Surveillance Planes	23
Figure 8: Reasons Why Respondents Would Support Surveillance Plane Use	24
Figure 9: Reasons Why Respondents Do Not Support Surveillance Plane Usage	25
Figure 10: Resident Support for Use of Surveillance Planes for Investigating Safety Concerns or Crim	nes 26
Figure 11: Attitudes about Effectiveness of Program by Race and Neighborhood Crime Level	31
Figure 12: Beliefs about Privacy by Race and Neighborhood Crime Level	32
Figure 13: Police Legitimacy by Race and Neighborhood Crime Level	40
Figure 14: Procedural Justice by Race and Neighborhood Crime Level	41
Figure 15: Police Bias by Race and Neighborhood Crime Level	43
Figure 16: Willingness to Partner with Police by Race and Neighborhood Crime Level	44
Figure 17: Willingness to Contact Police by Race and Neighborhood Crime Level	45
Figure 1: Sample Box Plot	58



# **TABLE OF TABLES**

Table 1: Sample Distribution by Contact Type (Wave 2 Survey)	7
Table 2: Sample Disposition Summary (Wave 2 Survey)	8
Table 3: Demographics of Survey Participants	9
Table 4: Summary of Survey Scales	10
Table 5: Neighborhood Conditions Scales	11
Table 6: Social Cohesion & Neighborhood Interaction Frequency Table	12
Table 7: Perceptions of Neighborhood Safety Frequency Table	13
Table 8: Fear of Being a Victim of a Crime Frequency Table	14
Table 9: Comparison of Average Item Score for Early Launch and Wave 2 Surveys	14
Table 10: Social Cohesion & Interaction by Race and Neighborhood Crime Level	16
Table 11: Perceptions of Neighborhood Safety by Race and Neighborhood Crime Level	18
Table 12: Fear of Being a Victim of a Crime by Race and Neighborhood Crime Level	19
Table 13: Source(s) of News for keeping Up with the AIR Program - Frequency Table	21
Table 14: Attitudes about the Effectiveness of the AIR Program Scale	26
Table 15: Attitudes about the Effectiveness of the AIR Program Frequency Table	27
Table 16: Beliefs about Privacy and the AIR Program Scale	27
Table 17: Beliefs about Privacy and the AIR Program Frequency Table	28
Table 18: Comparison of Average Item Score for Early Launch and Wave 2 Surveys	28
Table 19: Relationship between Support for Continued Use of AIR Planes and Demographic Variables	30
Table 20: Attitudes about Effectiveness of AIR Program by Race and Neighborhood Crime Level	31
Table 21: Beliefs about Privacy by Race and Neighborhood Crime Level	32
Table 22: Perceptions of Police Scales	34
Table 23: Perceptions of Police Legitimacy Frequency Table	35
Table 24: Perceptions of Procedural Justice Frequency Table	36
Table 25: Perceptions of Police Bias Frequency Table	37
Table 26: Willingness to Partner with Police Frequency Table	38
Table 27: Willingness to Contact Police Frequency Table	39
Table 28: Comparison of Average Item Score for Early Launch and Wave 2 Surveys	39
Table 29: Police Legitimacy by Race and Neighborhood Crime Level	41
Table 30: Perceptions of Procedural Justice by Race and Neighborhood Crime Level	42
Table 31: Police Bias by Race and Neighborhood Crime Level	43
Table 32: Willingness to Partner with Police by Race and Neighborhood Crime Level	44
Table 33: Willingness to Contact Police by Race and Neighborhood Crime Level	45
Table 34: Overall Findings from Survey Responses	46
Table 35: Findings from Wave 2 Survey Responses by Race and Neighborhood Crime Level	47
Table 36: Sample Disposition - Detail	55
Table 37: Demographics of Survey Participants	59
Table 38: Demographics of Baltimore Adult Population	60
Table 4: Summary of Survey Scales	62



# Baltimore Aerial Investigation Research Project Findings from Wave 2 Survey and Comparison to Early Launch Survey

# **EXECUTIVE SUMMARY**

On May 1, 2020, the Baltimore City Police Department launched the Aerial Investigation Research (AIR) pilot program. The 180-day pilot program, operated by Persistent Surveillance Systems (PSS) and funded by Arnold Ventures, LLC, investigated: the impact of surveillance plane technology on crime rates and clearance rates; its potential deterrence effect on crime and offenders; and public support for the program in Baltimore. The program focused on specific crime – murders, non-fatal shootings, armed robberies, and carjackings – in Baltimore City.

This report documents the findings from a second, follow-up survey of 356 Baltimore City residents conducted between March 6 and May 2, 2021. (The survey is called "Wave 2" in this report.) The survey was designed to capture residents' opinions on the program, policing in Baltimore, and related concerns. The research team used an address-based sampling frame that included 31,936 addresses, 72.8% of which were from the areas most impacted by violent crime and therefore most likely to benefit from or be impacted by the AIR program.

#### **FINDINGS**

The survey asked Baltimore residents about their level of knowledge of and support for the AIR program. The survey also asked about their perceptions of their neighborhood, personal safety, and the police. The key findings from the survey are summarized below. It is important to note here that the findings of this report are largely descriptive in nature, and thus do not speak to any causal relationships between the factors measured in this survey.

#### Awareness of the AIR Program

While the Early Launch survey asked about respondents' awareness of the AIR Program in general, the Wave 2 survey asked if respondents were "keeping up" with news about the planes as they were flying. In 2020, 6 in 10 respondents had been aware of the program, but one year later only 46% of respondents were paying attention to the program.

# Support for the AIR Program

Over half of respondents (55.9%) reported support of the use of the AIR surveillance planes. In comparison, 55.2% supported the program in the results of the Early Launch survey last year. For the Wave 2 survey, 28.1% of respondents would not support the continued use of the planes, while 6.5% were not sure if they would support the program or not. Those supporting the program believed that the program will help to solve and/or reduce crime. The most common reasons for opposing the program



were beliefs that the program violates privacy, that it does not deter offenders and that it does not help to solve crime in the city.

# Beliefs about Privacy and the AIR Program

Respondents were generally neutral on the issues of privacy with respect to the surveillance planes. In general, while respondents did not believe the planes protected individuals' privacy, they also did not believe the planes excessively violated their privacy either.

# Attitudes about AIR Program Effectiveness

Respondents were generally neutral about the surveillance planes' effectiveness. This means that participants generally did not think that the planes were either effective or ineffective. However, future measures of residents' perception of the effectiveness might provide important insights into the barriers and facilitators for the program implementation.

#### Perception of Police Legitimacy and Procedural Justice

Police legitimacy refers to people's trust and confidence in the police and its fairness. Legitimacy also implies that the police are granted the power of use of program that target the crime and criminals. Respondents were overall neutral with respect to police legitimacy (i.e., they saw the police as neither legitimate nor illegitimate). They were also neutral with respect to perceptions of procedural justice (i.e., perceptions of the fairness and the transparency of police programs and interventions). In addition, no evidence was found that the differences with respect to perceptions of police legitimacy and procedural justice were not driven by racial differences or residence in a high crime area.

#### Perception of Police Bias

Respondents were also asked if they thought police acted with bias based on people's race, ethnicity, earnings or age. Such perceptions of bias would be likely to decrease support for policing initiatives, even if a specific initiative was not driven by the bias itself. The results of the survey did indicate there was a perception of bias with respect to police interactions with the public. However, additional analysis shows that the race or living in high crime areas cannot explain the differences in this perception.

#### Willingness to Partner with Police

Individuals who cooperate with police by, for example, reporting crimes or providing information in response to inquiries, may also be more likely to support policing initiatives, such as the AIR program. The survey results suggest respondents were generally willing to partner with police.

#### Willingness to Contact Police

Cooperation with police can also be measured by an individual's willingness to contact police when: they were the victim of any crime; to report a minor or misdemeanor crime; to report a serious or felony crime; or to report serious activity. Findings from the Wave 2 survey suggest that respondents were likely to contact police to report the various crimes or criminal activities.



#### Perceptions of Neighborhood Social Cohesion

The survey included questions about how connected respondents felt to their neighbors. Overall, participants agreed that their neighborhoods were socially cohesive or that neighbors get along and are willing to help each other. There was a slight difference between the findings from these questions on the Wave 2 survey than on the Early Launch survey (3.47 and 3.51, respectively), although both resulted in findings of "neutral" perceptions of social cohesion. It is possible the ongoing isolation due to COVID-19 pandemic could continue to influence physical and social contact among neighbors.

# Perceptions of Neighborhood Safety

Overall, participants rated their perceptions of neighborhood safety as neutral, indicating that their neighborhood is neither safe nor unsafe, which is similar to the results of the Early Launch survey.

# Fear of Being a Victim of Crime

In general, respondents were not really afraid of being a victim of a crime. However, there average item score to the group of questions concerning this issue increased from the Early Launch survey (2.33 compared to 2.47 from the Wave 2 survey). This suggests respondents had an increased fear of being a victim of a crime overall although their responses were still generally classified as "not really afraid." This increase could be the result of the city's ongoing spike in gun violence, including both homicides and nonfatal shootings.

#### **EVOLUTION OF THE PROGRAM**

The AIR program had several safeguards imbedded in the program design to protect civil liberties and minimize the potential for a violation of an individual's constitutional rights. (1) The video was recorded at a low resolution (1 pixel per person), which prevents the video from being used to identify individuals, individual characteristics (e.g., ethnicity, gender, clothing) or vehicle characteristics (e.g., color, make, model, license plate), and (2) the video images were analyzed by designated and independent analysts.

Regardless of these safeguards, the prospect of aerial surveillance planes raised concerns from privacy and civil liberties advocates who then mounted a lobbying campaign to stop the program. Two of their major criticisms were that the program can be a tool that disproportionately targets minority neighborhoods (Campbell, 2020; Jackson, 2020) and that it violates the individuals' First and Fourth Amendment rights. Eventually, in June 24, 2021, the Fourth Circuit Court of Appeals in an 8-to-7 decision declared the Baltimore Police Department's use of an aerial surveillance plane as unconstitutional, promoting a warrantless search that violated the Fourth Amendment. In the decision, Federal Appeals Court Chief Judge Roger Gregory wrote: "Because the AIR program enables police to deduce from the whole of individuals' movements, we hold that accessing its data is a search and its warrantless operation violates the Fourth Amendment... and it violates a reasonable expectation of privacy individuals have in the whole of their movement." The program had already been ended by the city, but the decision also made the use of materials gathered by the flights unusable by law enforcement in the future.



# **INTRODUCTION**

In 2020, Baltimore City Police Department operated the Aerial Investigation Research (AIR) pilot program.<sup>1</sup> The program was designed to use surveillance planes flying over the city to help investigate crimes thereby potentially lowering the city's crime rate, improving the clearance rate, and potentially deterring future crimes. The program was focused on murders, non-fatal shootings, armed robberies, and carjackings in Baltimore City. AIR flights ended in October 2020, and the contract formally ended by Baltimore City in April 2021. Additionally, the 4th Circuit U.S. Court of Appeals denied the city's request for a temporary injunction to stop the program, and the denial was based on the surveillance capability and privacy concerns of such technology (Prudente, 2021).

Different aspects of the program were evaluated as part of the project by four entities: RAND Corporation (RAND), The Policing Project at New York University School of Law (NYU), the University of Baltimore Schaefer Center for Public Policy (Schaefer Center), and Morgan State University (Morgan State). RAND has investigated the usefulness of the AIR data to police in the investigation of crimes, including the impact on clearance rates and crime reduction. NYU examined the program's impact on civil rights and civil liberties. Morgan State was responsible for a quantitative impact evaluation of the program.

The fourth entity, the Schaefer Center for Public Policy, was responsible for conducting two public opinion surveys concerning the program: The Early Launch survey, which was conducted in June 2020, shortly after the surveillance planes started flying, and the Wave 2 survey, which was conducted between March 6 and May 2, 2021. While this second survey was conducted well after the planes stopped flying, the goal was to understand Baltimore City residents' views on the plane after the program was completed and, preferably, results from the program would be available for public consideration.

As discussed in the report of the findings from the Early Launch survey, the goal of the surveys was to understand: residents' perceptions of the AIR program, policing, and safety; its impact on crime clearance and deterrence; and its impact on civil rights. The sampling frame focused on the people most likely to be impacted by the use of the planes, although residents from across the city were sampled. To do this, an address-based sample was used for the Early Launch survey, with approximately 73% of the sample from Census block groups that had high levels of crime and high rates of poverty, while the remaining 27% of the sample was distributed across the other Census block groups in the city. The sample for the Wave 2 study, which is the focus of this report, was based on the sample used for the Early Launch survey.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> More information about the sample design is available in the Methodology section of the report.



<sup>&</sup>lt;sup>1</sup> More information about the program, including the capabilities of the planes and how the footage was stored, is available in the Early Launch survey report available on the Schaefer Center's website. <a href="https://schaefercenter.ubalt.edu/reports/">https://schaefercenter.ubalt.edu/reports/</a>

<sup>&</sup>lt;sup>2</sup> The evaluations by RAND, NYU, and the Schaefer Center are funded by Arnold Ventures, while Morgan State University's evaluation is funded by the Abell Foundation.

#### REPORT OVERVIEW

This report provides the findings from the Wave 2 survey, which was administered via phone and web survey between March 6 and May 2, 2021. At the time of the survey, the aerial surveillance planes had not been flying for approximately four months. This report, therefore, captures residents' views on the program after its completion, but before the court's decision about its unconstitutionality, using a robust, systematic process designed to reach a wide range of residents across the city's many neighborhoods.

This report was designed to be a companion to the report on the findings from the Early Launch survey. Therefore, readers would benefit from having read that report in advance to understand the theoretical basis of the survey questions developed as well as the specific findings from those questions. Only the top-level findings from that survey are presented here for comparison to the Wave 2 results. The only section that is largely similar between the two reports is the Methodology, as the sample for the Wave 2 survey was built off the sample for the Early Launch survey. Even then, some details from the Methodology related to the Early Launch survey, such as call disposition, are not included here but discussed at length in the first report.

As with the first report, this report on the findings from the Wave 2 survey is descriptive in nature. It is presented in five segments: methodology and sampling procedures; perceptions of neighborhood conditions and crime; perceptions of the AIR program; perceptions of the police including the willingness to engage with police; and a summary of findings and recommendations. The sections on perceptions of neighborhood conditions and crime, the AIR program, and police include both overall findings as well as findings by race and by neighborhood crime level. The sections also include brief comparisons of these findings to the Early Launch report, although the response rate for the survey precluded statistical analysis of the differences.

Also in line with the Early Launch survey, the design of the Wave 2 survey, the nature of the questions, and the response rate means readers should take extreme care in drawing causal conclusions. Results presented here should be viewed only as the respondents' assessments of the AIR program, policing, and neighborhood conditions; because the sample was not representative of residents' demographics overall, the results cannot be assumed to how city residents as a whole or in various demographic groups view the program. While there were initially plans to weight the results of the Wave 2 survey to provide such analysis, the final response rate was not sufficient to do so. Therefore, conclusions should not be made that individuals of a specific demographic group would have responded similarly to the respondents or that there is a causal relationship between demographic factors and respondents' holding or not holding a specific view.



# **METHODOLOGY**

The survey questionnaire was developed by the Schaefer Center project team based on the existing literature on criminal justice and policing. The complete survey questionnaire is available in Appendix D of this report. The project team also evaluated the quality of the survey instrument by computing a measure of internal consistency reliability – Cronbach's Alpha ( $\alpha$ ). For each section where computed, the "alpha" is presented and interpreted as a proportion of variance.<sup>4</sup>

Survey questions were developed to address four research topics (discussed below). Descriptive differences among participants are reported for discussion but should not be used for causal conclusions.

This section of the report presents information on the research topics, sampling procedure, and calculations used in the analysis of survey data.

#### RESEARCH TOPICS

The survey of Baltimore City residents documents their perceptions of the AIR program, their perceptions of their neighborhood conditions and crime, and their perceptions of policing in their neighborhood. The survey research plan was designed to answer the following four research topics:

- 1. Residents' perceptions of their neighborhood conditions, including perceptions of crime and personal safety.
- 2. Residents' perceptions of policing, including procedural justice, police legitimacy, police bias, willingness to partner with police, etc.
- 3. Residents' understanding of the overall surveillance plane program.
- 4. Residents' perceptions about the effectiveness of the surveillance plane program in addressing their concerns about personal safety and safety in their neighborhood.

#### SAMPLE AND SAMPLING PROCEDURE

Below is a brief description of the sampling procedure used by the research team for the Wave 2 survey. Please refer Appendix A for more information on how the sample was selected. Since the sampling of high crime block groups for the Early Launch survey had resulted in selection of almost all available addresses, the decision was made to re-use the sample purchased in 2020 for the follow-up survey, although there were some modifications. Addresses that did not have a valid telephone phone number and had a returned letter during the Early Launch survey process were excluded from Wave 2, resulting in 1,036 addresses that did not receive a Wave 2 invitation to participate in the survey. Addresses that had an invalid number disposition during the Early Launch survey data collection were mailed an invitation along

<sup>&</sup>lt;sup>4</sup> Ideally, the alpha values should range between 0.70 and 0.90. An alpha of 0.60 and below would be considered poor reliability in most research situations, while a score above 0.90 suggests redundancy in the questions.



with the addresses without a matched phone number. In total, almost 32,000 addresses were contacted during the Wave 2 data collection, with 20,583 (64%) contacted via phone and the remainder by mail only (Table 1).

Table 1: Sample Distribution by Contact Type (Wave 2 Survey)

Census Block Group Classification	Universe of Possible Addresses	Address & Phone Number (Contacted by Phone)	Address Only (Contacted by Mail)	Total
High crime/high poverty census block groups	25,954	15,724	7,528	23,252
All other census block groups	233,876	4,859	3,825	8,684
Total	259,840	20,583	11,353	31,936

Data collection for Wave 2 of the study commenced on March 6, 2021, with the start of outbound calling. The invitation letters were mailed out over three waves between March 8 and March 22, and the project web site was available for completing the survey until May 2. Outbound calls were made Monday-Friday 10 a.m.-9:00 p.m. EST and Saturday and Sunday from noon-6:00 p.m. EST. For outbound calls, up to five attempts were made to each phone number, and a message was left on the first encounter of a voicemail. This message informed the respondent about the purpose of the call and gave them the information needed to complete the survey online or to call back into the call center.

A total of 356 individuals participated in the survey, of which 80 responses came from households that participated in the Early Launch survey.

The AAPOR Response Rate 4 for the Wave 2 survey is 2%.<sup>5</sup> The decline in response rate can be attributed to several factors. First, there was a significant time period between the first and second survey, and it was more difficult to contact a household during the Wave 2 data collection compared to the Early Launch process. This is seen by the increase in households with unknown eligibility and the decline in responses from households going online to complete the survey (Table 2). Second, in the time between the Early Launch and Wave 2 surveys, the decision had been made to discontinue the program, likely making residents less inclined to participate in a survey about a program that was already discontinued. Finally, response rates for all surveys have been steadily decreasing over time, but the decrease at the start of COVID-19 was noticeably larger even among major federal agencies such as Census Bureau and U.S. Bureau of Labor Statistics.

<sup>&</sup>lt;sup>5</sup> APPOR refers to the American Association for Public Opinion Research, and the response rate was estimated using their calculator, version 4.0, available at <a href="https://www.aapor.org/AAPOR\_Main/media/MainSiteFiles/Response-Rate-Calculator-4-0-Clean-18-May-2016.xlsx">https://www.aapor.org/AAPOR\_Main/media/MainSiteFiles/Response-Rate-Calculator-4-0-Clean-18-May-2016.xlsx</a>.



Table 2: Sample Disposition Summary (Wave 2 Survey)

Disposition	Phone Sample	Mail Only Sample	Total
Completed Interview [1]	288	68	356
Eligible, Contacted Respondent - Interview Not Completed [2]	3,550	-	7,164
Unknown eligibility [3]	13,810	10,306	24,116
Not Eligible [4]	2,914	-	2,914
Total	20,562	10,374	30,936

#### Notes:

- [1] Includes complete and partially complete interviews.
- [2] Includes refusals, callbacks, answering machines, terminated interviews, deceased respondents, and language barriers.
- [3] Includes always busy, no answer, call blocking, letters mailed without response or return, and returned mail.
- [4] Includes not a Baltimore City resident, fax/data line, non-working/disconnected number. business or government number, no eligible respondent, quota filled, and duplicate listing.

# Sample Demographics

Table 3 shows the demographics of the survey respondents. Of those who reported their demographic information, the majority were women (58.0%), Black (68.7%), not Latinx (98.0%), employed at least part-time (53.1%) and living in a high crime neighborhood (67.7%). Just less than 42% of respondents had up to a high school diploma, while 40.2% had some college, an Associate's degree, or vocational training. The median respondent was between the ages of 55-64 years old.



**Table 3: Demographics of Survey Participants** 

Variables	N	Percent	Valid Percent
Age Group			
18-24 years old	11	3.1%	3.7%
25-34 years old	31	8.7%	10.4%
35-44 years old	49	13.8%	16.5%
45-54 years old	48	13.5%	16.2%
55-64 years old	67	18.8%	22.6%
65-74 years old	59	16.6%	19.9%
75 years or older	32	9.0%	10.8%
Missing/refused	59	16.6%	NA
Gender			
Male	125	35.1%	41.7%
Female	174	48.9%	58.0%
Nonbinary	1	0.3%	0.3%
Missing/refused	56	15.7%	NA
Race			
White	80	22.5%	28.2%
Black	195	54.8%	68.7%
Other	9	2.5%	3.2%
Missing/refused	72	20.2%	NA
Ethnicity			
Latinx	6	1.7%	2.0%
Not Latinx	288	80.9%	98.0%
Missing/refused	62	17.4%	NA
Education			
Up to a high school degree	149	41.9%	41.9%
Some college, Associate's, or vocational training	143	40.2%	40.2%
Bachelor's or higher	64	18.0%	18.0%
Missing/refused	0	0.0%	NA
Employment Status			
Yes (at least part time)	154	43.3%	53.1%
Not employed	28	7.9%	9.7%
Retired/disabled, not able to work	108	30.3%	37.2%
Missing/refused	66	18.5%	NA
Crime Level			
Low crime neighborhood	115	32.3%	32.3%
High crime neighborhood	241	67.7%	67.7%

As with the Early Launch survey sample, the participants for the Wave 2 survey generally mirror the city's adult residents.<sup>6</sup> For example, the distribution by race and ethnicity is roughly similar, with Black and non-Latinx residents comprising the majorities of both. While women are the majority of both the survey participants and the city's population, the Wave 2 survey had a larger share of men (35.1% vs. 31.0% in the Early Launch survey). The biggest difference concerned the age distribution, as the city's population tends to be younger than the survey participants. Nevertheless, more younger residents completed the Wave 2 survey than the Early Launch survey (3.1% vs. 1.8%, respectively).

<sup>&</sup>lt;sup>6</sup> Appendix B contains a more information on the sample demographics and a comparison to the city's population.



#### SURVEY TOPICS AND ANALYSIS

The primary goal of this study was to explore the perception of the AIR program by Baltimore residents. The survey instrument was divided into four major sections measuring: (I) Perceptions of Neighborhood Conditions, Crime, and Personal Safety, (II) Perceptions of the AIR Program, (III) Perceptions of the Police, and (IV) Willingness to Cooperate with Police. As discussed more fully in the first report (and reproduced in Appendix C), a series of scales were developed to evaluate each of the research questions. These scales (shown in Table 4) included the responses to between three and six survey questions. Each question was included in only one scale, and if a participant did not respond to a question their responses are result in a missing case for the scale and are not included in the average. As with the Early Launch survey, additional analyses were undertaken for each scale to measure: (1) internal consistency, using Cronbach's alpha; (2) the distributions of scores by race and neighborhoods, using boxplots and two-way ANOVA.

**Table 4: Summary of Survey Scales** 

Scale	Description
Perceptions of Neighborhood Conditions, Crin	ne, and Personal Safety
Social cohesion & interaction	5-question scale, with responses ranging from
	1 = Strongly Disagree to 5 = Strongly Agree
Perceptions of neighborhood safety	5-question scale, with responses ranging from
	1 = Strongly Disagree to 5 = Strongly Agree.
Fear of being a victim	6-question scale, with responses ranging from
	1 = Not Afraid at all to 4 = Very Afraid
Perceptions of AIR Program	
Knowledge of AIR program	Response of: Yes, No, or I am not sure
Support of AIR program	Response of: Yes, No, or I am not sure
Support of AIR program for investigating	4-question scale for four crime types: Carjacking, Armed Robberies,
crime	Non-fatal Shootings, and Murders/Homicides Responses range from
	1 = Strongly Against to 5 = Strongly Support
Attitudes about effectiveness of AIR program	5-question scale, with responses ranging from
	1 = Strongly Disagree to 5 = Strongly Agree
Beliefs about privacy and AIR program	4-question scale, with responses ranging from
	1 = Strongly Disagree to 5 = Strongly Agree
Perceptions of the Police	
Police legitimacy	6-question scale, with responses ranging from
	1 = Strongly Disagree to 5 = Strongly Agree.
Procedural justice	5-question scale, with responses ranging from
	1 = Strongly Disagree to 5 = Strongly Agree
Perceptions of Police bias	3-question scale, with responses ranging from
	1 = Strongly Disagree to 5 = Strongly Agree
Willingness to Cooperate with Police	
Willingness to partner with Police	3-question scale, with responses ranging from
	1 = Very Unlikely to 4 = Very Likely
Likelihood of contacting Police	4-question scale, with responses ranging from
	1 = Very Unlikely to 4 = Very Likely

Note: The questions included in each scale, descriptive statistics for the responses and the results, and contextual information for each scale are presented in the subsequent sections of this report.



# SECTION I: PERCEPTIONS OF NEIGHBORHOOD CONDITIONS AND CRIME - OVERALL FINDINGS

Residents' perceptions of neighborhood conditions and crime, including their perceptions of neighborhood safety and their fear of being a victim of a crime, may affect how they perceive the use of the AIR program and other new crime control strategies. Based on the policing literature, three concepts were measured: (1) social cohesion and interaction, (2) perceptions of neighborhood safety, and (3) fear of being a victim to a crime.

The questions used in the scale for Social Cohesion & Interaction had good reliability with each other, as calculated via the Cronbach's alpha (Table 5). This is also true for the questions used in the scale for Perceptions of Neighborhood Safety. The Cronbach's alpha for Fear of Being a Victim is slightly outside the desirable range but not substantially enough to raise concerns. The average item scores, which represent the average rating of a respondent for questions on that scale, are discussed below, then compared to the results of the interim study of the Early Launch survey. The next section considers differences in responses across race and neighborhood crime level for the surveys.

**Table 5: Neighborhood Conditions Scales** 

Variables	Minimum- Maximum	Avg. Item Score (St. Dev)	α*	Missing
Social Cohesion & Interaction	1.00 - 5.00	3.47 (0.70)	0.77	N = 59 (16.57%)
Perceptions of Neighborhood	1.00 - 5.00	3.16 (0.79)	0.73	N = 43 (12.08%)
Safety				
Fear of Being a Victim	1.00 - 4.00	2.47 (0.86)	0.91	N = 45 (12.64%)

Note: N = 356.

Values for Scale Ranges:

Social Cohesion & Interaction: 1 lowest social cohesion; 5 highest social cohesion.

Neighborhood Safety: 1 not safe; 5 very safe.

Fear of Being a Crime Victim: 1 not afraid; 4 very afraid.

#### SOCIAL COHESION & ISOLATION

Social cohesion reflects connections and trust among a set of people (e.g., Sampson et al., 1997, 2002; Portes, 1998; Forrest & Kearns, 2001). Cohesion – and its opposite, isolation – can affect individuals' views of their neighborhood, and neighborhoods with more social cohesion tend to have lower crime rates.

Social cohesion reflects connections and trust among a set of people.

The survey therefore included questions about how connected respondents felt to their neighbors. These questions were: if respondents were willing to help their neighbors and if people in the neighborhood could be trusted, generally get along with one another, share the same values and visit each other's homes



<sup>\*</sup> Cronbach's alpha score between 0.70-0.90 indicates that the items have good reliability with one another.

or talk in the streets (Table 6). The average item score for this scale was 3.47 (S.D. = 0.70), indicating that respondents had a neutral view of social cohesion and neighborhood interaction.

**Table 6: Social Cohesion & Neighborhood Interaction Frequency Table** 

Question	N	Respondent Level of Agreement						Mean
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Missing	Question Response [1]
		1	2	3	4	5		
People around here are willing to help their neighbors.	356	5.9%	9.0%	23.0%	44.9%	13.5%	3.7%	3.53
People in this neighborhood can be trusted.	356	5.1%	16.6%	26.4%	38.5%	6.7%	6.7%	3.27
People in this neighborhood generally get along with each other.	356	1.7%	6.7%	16.3%	61.0%	9.6%	4.8%	3.73
People in this neighborhood share the same values.	356	3.4%	21.1%	25.0%	35.7%	4.8%	10.1%	3.19
People in this neighborhood visit each other's homes or talk in the streets.	356	2.0%	14.0%	18.8%	49.4%	9.3%	6.5%	3.53
Average Scale Item Score [2]								3.47

Notes: Highlighted cells under "respondent level of agreement" indicate the most frequent response for each question. [1] Mean question response is calculated as the average score for each individual question across all respondents, excluding participants with missing data on that individual question.

[2] The average item score was calculated by adding together scores for each participant on all items on the scale and taking the average of that sum. Participants with missing data for any item were excluded from this calculation, as their scores could not be summed with missing data.

#### PERCEPTIONS OF NEIGHBORHOOD SAFETY

Perceptions of neighborhood safety may influence respondents' views of police as well as initiatives to combat crime, including those using new technologies such as the AIR program. Therefore, questions (Fontaine et al., 2019) were included in the survey to assess the respondents' perceived level of safety in their neighborhoods.

Perceptions of neighborhood safety may influence respondents' views of police as well as initiatives to combat crime.

The questions respondents were asked about their neighborhood safety were: if it was safe; if they avoid certain streets or buildings; if they feel comfortable walking alone; if they carry a weapon to feel safe; and if people sell or use drugs on the street (Table 7). The average item score for this scale was 3.16 (S.D. = 0.79), indicating a neutral view of neighborhood safety. This means on average respondents did not view their neighborhood as either safe or unsafe.



**Table 7: Perceptions of Neighborhood Safety Frequency Table** 

Question	N	Respondent Level of Agreement						Mean
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Missing	Question Response [1]
		1	2	3	4	5		
My neighborhood is safe.	356	7.3%	26.6%	22.2%	35.1%	5.9%	3.9%	3.07
l avoid certain streets or buildings in my neighborhood. [3]	356	8.2%	34.8%	10.4%	33.4%	9.0%	4.2%	3.00
I feel comfortable walking alone in my neighborhood.	356	5.1%	20.8%	15.2%	44.1%	9.3%	5.6%	3.34
I carry a weapon to feel safe in my neighborhood. [3]	356	20.2%	49.2%	6.5%	14.9%	2.3%	7.0%	2.24
People sell or use drugs on the street in my neighborhood. [3]	356	6.7%	22.2%	13.8%	28.9%	18.3%	10.1%	3.33
Average Scale Item Score [2]								3.16

Notes: Highlighted cells under "respondent level of agreement" indicate the most frequent response for each question. [1] Mean question response is calculated as the average score for each individual question across all respondents, excluding participants with missing data on that individual question.

[3] Item is reverse coded.

#### FEAR OF BEING A VICTIM OF A CRIME

There were also questions included in the survey asking respondents if they were worried about being the victim of different types of crimes (e.g., Ferraro, 1995; Jackson et al., 2009; Warr, 2000). While there is evidence that such fears are more prevalent than actual crimes (Warr, 2000), these fears can influence how connected individuals feel to their community and how much they

Fear of crime can influence how connected individuals feel to their community and how much they support police and policing initiatives.

support police and policing initiatives (Jackson et al., 2009). Individuals who have greater fear of being a crime victim may be more likely to support initiatives to combat crime, such as the AIR program.

In this survey, respondents were asked if they were afraid of: having property or a car damaged by vandals; having a car stolen or carjacked; having someone break into their home; being robbed or mugged by a stranger; being shot or shot at; or being murdered (Table 8). The average item score of 2.47 (S.D. = 0.86) suggests that the average respondent is not really afraid of being the victim of a crime.



<sup>[2]</sup> The average item score was calculated by adding together scores for each participant on all items on the scale and taking the average of that sum. Participants with missing data for any item were excluded from this calculation, as their scores could not be summed with missing data.

**Table 8: Fear of Being a Victim of a Crime Frequency Table** 

Question	N	Respondent Level of Agreement							
		Not afraid at all	Not really afraid	Somewhat afraid	Very afraid	Missing	Question Response [1]		
		1	2	3	4	5			
Having your property/car damaged by vandals.	356	17.7%	30.9%	30.6%	14.0%	6.7%	2.44		
Having your car stolen or being carjacked.	356	22.5%	26.1%	26.1%	15.2%	10.1%	2.38		
Having someone break into your home.	356	19.1%	26.1%	28.4%	18.8%	7.6%	2.51		
Being robbed or mugged by a stranger.	356	13.8%	27.3%	30.6%	21.1%	7.3%	2.64		
Being shot or shot at.	356	22.8%	27.5%	20.8%	21.6%	7.3%	2.45		
Being murdered.	356	24.7%	27.0%	18.3%	21.9%	8.2%	2.41		
Average Scale Item Score [2]						-	2.47		

Notes: Highlighted cells under "respondent level of agreement" indicate the most frequent response for each question. [1] Mean question response is calculated as the average score for each individual question across all respondents, excluding participants with missing data on that individual question.

[2] The average item score was calculated by adding together scores for each participant on all items on the scale and taking the average of that sum. Participants with missing data for any item were excluded from this calculation, as their scores could not be summed with missing data.

#### SUMMARY WITH COMPARISON TO EARLY LAUNCH SURVEY

In general, the results of the Wave 2 survey were not substantially different from those of the Early Launch survey conducted in 2020 (Table 9). For the scales on Social Cohesion & Isolation and on Perceptions of Neighborhood Safety, the average item score differed by less than 0.05; while this was enough to move the first scale from a "positive" result to a "neutral" one, the difference is not sufficient to truly classify this difference, especially in the absence of statistical analysis (which, as a reminder, was not conducted due to the sample size of Wave 2). While there was a larger difference in the average item score for the scale on Fear of Being a Victim of a Crime, the difference was not enough to move the average response away from Not Really Afraid.

Table 9: Comparison of Average Item Score for Early Launch and Wave 2 Surveys

Scale	Early Launch Survey Results	Wave 2 Survey Results
Social Cohesion & Isolation	3.51 (Positive)	3.47 (Neutral)
Perceptions of Neighborhood Safety	3.20 (Neutral)	3.16 (Neutral)
Fear of Being a Victim of a Crime	2.33 (Not Really Afraid)	2.47 (Not Really Afraid)



# SECTION II: PERCEPTIONS OF NEIGHBORHOOD CONDITIONS AND CRIME — FINDINGS BY RACE AND NEIGHBORHOOD CRIME LEVEL

Both race and neighborhood crime level play a role in community support for various policies in Baltimore. This is especially true of community support for the Baltimore Police Department and policing strategies such as the AIR program. Due to the histories of racism and disinvestment in the city, majority Black neighborhoods are often overrepresented among poor and high crime neighborhoods, which is then likely to lead to more policing (Anderson, 1999; Fagan & Davies, 2000; Brunson & Miller, 2006). Such neighborhoods may affect the levels of social cohesion and isolation and likely impact perceptions of neighborhood safety and fear of being a victim of a crime (e.g., Sampson & Raudenbush, 2004; Scarborough et al., 2010).

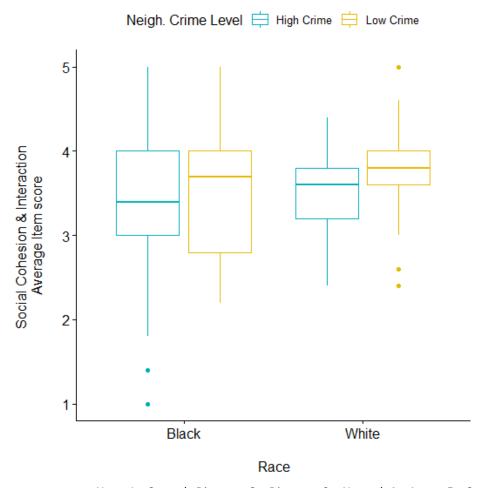
Therefore, this section considers the three scales of perceptions of neighborhood conditions and crime with respect to race and neighborhood crime level and if there is interaction between the two factors. For each scale, first the effects on responses by race and neighborhood crime level are considered via the use of boxplots. As discussed in Appendix C, in a boxplot each box contains 50% of the respondents for the category, with half of those respondents above the median line and half below; an additional 25% of the respondents had values above the box, and 25% had values below the box, while the dots signify outliers. A two-way ANOVA is then used to compare statistical differences within race and within neighborhood crime level then to see if there was interaction between the two factors.

#### **SOCIAL COHESION & ISOLATION**

The boxplot for race and neighborhood crime level with respect to Social Cohesion & Isolation is presented in Figure 1. The results suggest that White survey respondents generally had higher scores than Black respondents with regard to Social Cohesion & Isolation, as the median lines and minimum scores were higher. This was the case regardless of if respondents lived in a high or low crime neighborhood. In addition, while White respondents in high crime neighborhoods had a higher average score on this measure compared to Black respondents in similar neighborhoods, Black respondents had more range in their responses, as demonstrated by both the bigger box and the longer lines.



Figure 1: Social Cohesion & Interaction by Race and Neighborhood Crime Level



Note: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

Table 10 provides the results of the two-way ANOVA on the Social Cohesion & Interaction measure with regard to race and neighborhood crime level. The results suggest that both race (F = 12.69, p<.001) and neighborhood crime level (F = 4.82, p = 0.029) have statistically significant effects on these indicators of neighborhood perception, while there is no interaction between the two with respect to Social Cohesion & Interaction (i.e., the two factors together do not have a different relationship with the scale than each factor independently did).

Table 10: Social Cohesion & Interaction by Race and Neighborhood Crime Level

	F	p. value	Partial Eta Squared
Race	12.69	<.001	0.019
Neighborhood crime level	4.82	.029	0.020
Race*neighborhood crime level	0.70	.43	0.003



#### PERCEPTIONS OF NEIGHBORHOOD SAFETY

The boxplot for Perceptions of Neighborhood Safety by race and neighborhood crime level is shown in Figure 2. These results suggest White survey respondents generally felt safer in their neighborhoods than Black respondents and, as may be considered likely, individuals living in low crime neighborhoods were more likely to feel safe in their neighborhoods than individuals living in high crime neighborhoods.

Figure 2: Perceptions of Neighborhood Safety by Race and Neighborhood Crime Level

Note: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

The two-way ANOVA results shown in Table 11 find that the differences by race (F = 24.08, p<.001) and by neighborhood crime level (F = 18.44, p<0.001) are both statistically significant. In other words, both race and neighborhood crime level affect how respondents view this aspect of their neighborhood. However, the results also indicate there is no interaction for the two factors on Perceptions of Neighborhood Safety.



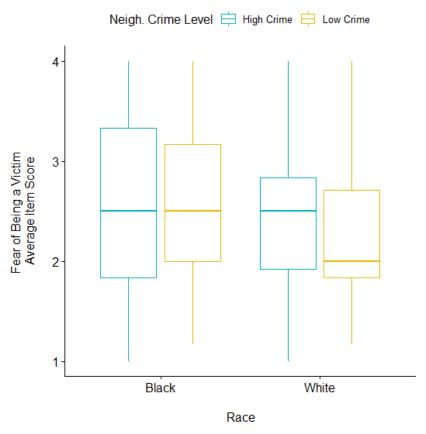
Table 11: Perceptions of Neighborhood Safety by Race and Neighborhood Crime Level

	F	p. value	Partial Eta Squared
Race	24.08	<.001	0.023
Neighborhood crime level	18.44	<.001	0.062
Race*neighborhood crime level	0.49	.486	0.002

#### FEAR OF BEING A VICTIM OF A CRIME

The boxplots for Fear of Being a Victim of a Crime are shown in Figure 3. They suggest that White respondents had more consistent results, since their boxes are smaller. The results also suggest that all groups had the same average score with respect to being the victim of a crime with the exception of White respondents living in low crime neighborhoods, whose average score was well below that of White respondents in high crime neighborhoods and Black respondents in both high and low crime neighborhoods.

Figure 3: Fear of Being a Victim by Race and Neighborhood Crime Level



Note: 1 = Not afraid at all, 2 = Not really afraid, 3 = Somewhat afraid, 4 = Very afraid

The results of the two-way ANOVA presented in Table 12 suggest that the differences shown in the boxplot are not statistically significant for either race or neighborhood crime level. The ANOVA results



also suggest that there is not an interaction between the two factors with respect to Fear of Being a Victim of a Crime.

Table 12: Fear of Being a Victim of a Crime by Race and Neighborhood Crime Level

	F	p. value	Partial Eta Squared
Race	2.68	.103	0.007
Neighborhood crime level	0.02	.885	0.000
Race*neighborhood crime level	0.56	.455	0.002

#### SUMMARY WITH COMPARISON TO EARLY LAUNCH SURVEY

The results presented here suggest that race and neighborhood crime level have statistically significant relationships with both Perceptions of Social Cohesion & Isolation and Perceptions of Neighborhood Safety. This result was also found in the Early Launch survey. The Wave 2 results did not find evidence that either race or neighborhood crime level had a statistically significant relationship with Fear of Being a Victim of a Crime; the results of the Early Launch survey did find a statistically significant relationship between Fear of Being a Victim of a Crime and both factors.

There were no interactions found for the three scales comprising Perceptions of Neighborhood Conditions and Crime. With the exception of Perceptions of Neighborhood Safety, this is the same result as was found from the Early Launch survey.



#### SECTION III: PERCEPTIONS OF AIR PROGRAM - OVERALL FINDINGS

In general, respondents to the Early Launch survey were generally approving of the AIR program, with 55% of respondents saying they supported the program and approximately 60% or more of respondents supporting its use for murders/homicides, non-fatal shootings, armed robberies, and carjackings. Respondents to the Wave 2 survey also generally supported the AIR program and its use for investigating the above types of crimes.

This section will explore if respondents were aware of continued news concerning the operation of the AIR planes and will also test their knowledge of various AIR components. It then explores respondents' support for the AIR program and for use of the program to solve various types of crimes, before considering the scales developed to measure attitudes about the effectiveness of the AIR program and beliefs about privacy and the AIR program.

# AWARENESS OF THE AIR PROGRAM

While the Early Launch survey asked about respondents' awareness of the AIR program in general, the Wave 2 survey asked if respondents were "keeping up" with news about the planes as they were flying. In 2020, 6 in 10 respondents had been aware of the program, but one year later only 46.3% of respondents were paying attention to the program (Figure 4).

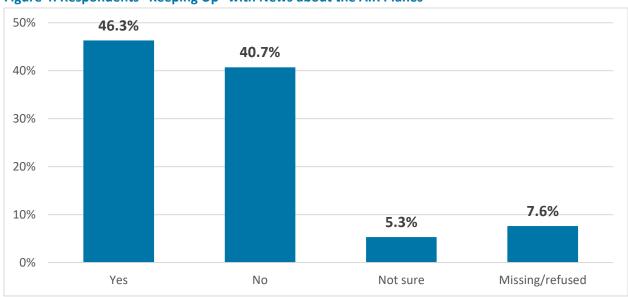


Figure 4: Respondents "Keeping Up" with News about the AIR Planes

N = 356.

For those who were paying attention to news concerning the AIR program, the most common source of such information was local TV or radio, which was identified by 81.8% of respondents (Table 13). This was



by far the most common source, with the next most frequently named source, the newspaper, selected by only 26.1% of respondents.

Table 13: Source(s) of News for keeping Up with the AIR Program - Frequency Table

	Percent
Local TV or radio	81.8%
Newspaper	26.1%
People in respondent's community	8.5%
Community organizations	7.9%
Civil rights organizations, like the ACLU	7.9%
Friends or family	6.7%
Baltimore Police Department announcement	6.7%
Religious organization, such as a church	2.4%
Other	9.7%

Notes: N = 165. Respondents were asked to check all source(s) that applied.

#### **Knowledge of AIR Components**

Respondents were asked if a series of statements concerning the AIR program were "true" or "false" to test their knowledge of the program, with the correct response to all of the statements being "true." As shown in Figure 5, there was only one statement for which a majority of respondents correctly identified the statement as true; this was that the program will be evaluated by independent researchers. For four of the other five statements, the largest share of respondents said the statement was "true," but it was not a majority of respondents. For the statement that people and vehicles could not be tracked in real time, the largest share of respondents said it was "false" although this was not the majority's answer. For the statements that did not change from the Early Launch survey to Wave 2, the shares of respondents correctly identifying the statements as "true" increased. The first statement, which was concerned with the program helping to solve violent crimes and included the word "only" in the Wave 2 survey but not the Early Launch survey, saw a decrease in those identifying it as "true" from 56.4% to 39.0%.



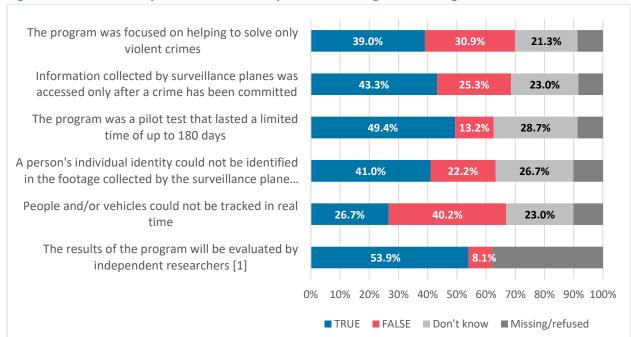


Figure 5: Percent of Responses to Items on Specific Knowledge of AIR Program

Notes: N = 356. All items measured on this scale are real (i.e., True) components of the AIR program.
[1] This item was not asked consistently by the administrators of the phone survey, and there contains more missing data than other items in this set.

#### SUPPORT FOR THE AIR PROGRAM

Over half of respondents (55.9%) would support the use of the AIR surveillance planes (Figure 6). In comparison, 55.2% supported the program in the results of the Early Launch survey last year. For this second survey, 28.1% of respondents would not support the continued use of the planes, while 6.5% were not sure if they would support the program or not.



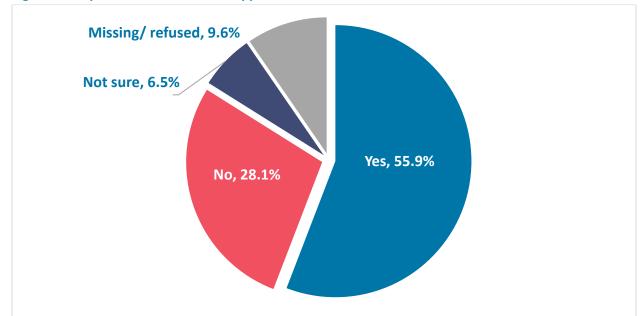


Figure 6: Respondents Who Would Support Use of Surveillance Planes

N = 356.

Respondents who supported the use of the surveillance planes were asked why they did so. The most common reason, selected by almost two-thirds of those who supported the AIR program, was that they thought the planes would help solve crime (Figure 7). The second most common reason for supporting the program was that they thought it would reduce crime, while 4 in 10 respondents thought it would prevent crime. Only 16.1% of respondents supported the continued use of the program because they thought the pilot program had been successful, while approximately 15.1% thought it was cost effective and another 14.6% were not concerned about violations of other people's privacy.



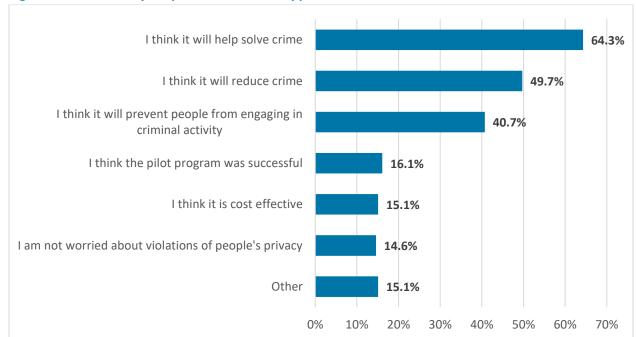


Figure 7: Reasons Why Respondents Would Support Surveillance Plane Use

Note: N = 199. Respondents could select more than one response.

Individuals who did not support the AIR program were asked to identify reasons why they did not. The most common reason, selected by 58.0% of these respondents, was because they thought it would violate people's privacy (Figure 8). The second most common reason was because they did not think it will help solve enough crime (45.0%) followed by thinking that it will not prevent people from engaging in criminal activity (44.0%). Approximately one-quarter of respondents did not support the program because the BPD did not provide enough information to the community, while 22.0% did not think the pilot program was successful.



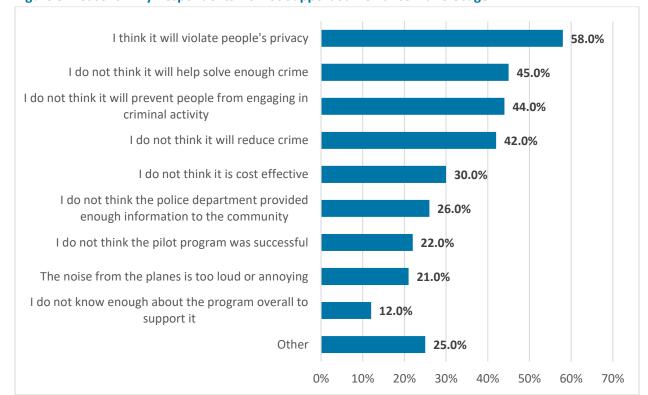


Figure 8: Reasons Why Respondents Do Not Support Surveillance Plane Usage

Note: N = 100.

# Support for Using the AIR Program for Specific Types of Safety Concerns or Crimes

All participants were then asked if they supported the use of the AIR program for investigating specific types of crimes. As with the Early Launch survey, majorities of respondents to the Wave 2 survey supported the use of the AIR planes to investigate murders/homicides (67.1%), non-fatal shootings (66.3%), armed robberies (65.4%), and carjackings (64.6%), as shown in Figure 9. All of these were increases in support from the Early Launch survey. The Wave 2 survey also asked if respondents supported the use of the planes for investigating three additional types of safety concerns or crimes: thefts or home burglaries, political protests or instances of civil unrest, and traffic violations or accidents. There was only support for using the AIR planes to investigate the first type of crime, thefts or home burglaries, for which 59.3% of respondents were supportive. For the other two concerns – protests/civil unrest and traffic violations/accidents, which may be disruptive but are less likely to be crimes – the largest share of respondents did not support the use of the surveillance planes for investigation (37.9% each) although the difference was less than 8 percentage points between opposition and support (31.2% and 32.6%, respectively). Compared to the other issues, which were more likely criminal activities, larger shares of respondents were neutral about the use of the planes for investigating protests/civil unrest and traffic violations/accidents.



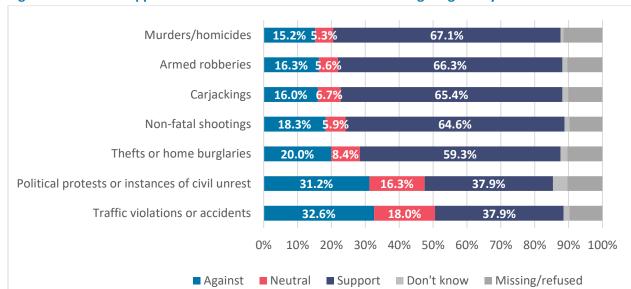


Figure 9: Resident Support for Use of Surveillance Planes for Investigating Safety Concerns or Crimes

#### ATTITUDES ABOUT THE EFFECTIVENESS OF THE AIR PROGRAM

A scale was developed to specifically measure respondents' attitudes about the effectiveness of surveillance planes for gathering evidence and preventing crime. The Cronbach's alpha suggests good inter-reliability of the questions with the scale (Table 14).

Table 14: Attitudes about the Effectiveness of the AIR Program Scale

Variable	Minimum- Maximum	Avg. Item Score (St. Dev)	α*	Missing
Attitudes about effectiveness of AIR	1.00 - 5.00	3.07 (0.90)	0.84	N = 53 (14.89%)
program				

Note: N = 356.

Scale values: 1 strongly disagree the program is effective; 5 strongly agree the program is effective.

The questions in this scale concerned if respondents thought the surveillance planes were helpful for police by gathering evidence: in open public places, such as parks and streets; in open private places, such as porches and backyards; and for serious crimes like shootings and homicides. Additional questions asked if respondents thought the planes would prevent people from engaging in criminal activity or encourage people to report criminal activity to the police. The average item score was 3.07 (S.D. = 0.90), which suggests a neutral view of the surveillance planes' effectiveness. This means that respondents generally did not think that the planes were either effective or ineffective.



<sup>\*</sup> Cronbach's alpha score between 0.70-0.90 indicates that the items in the scale have good reliability with one another.

Table 15: Attitudes about the Effectiveness of the AIR Program Frequency Table

Question	N		Respondent Level of Agreement				Mean	
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Missing	Question Response [1]
		1	2	3	4	5		
Surveillance planes gathering evidence in open public places, like parks and streets, is useful for police.	356	6.7%	10.1%	23.3%	36.5%	10.7%	12.6%	3.39
Surveillance planes gathering evidence in open private places, like porches and backyards, is useful for police.	356	11.0%	20.2%	23.6%	25.6%	6.7%	12.9%	2.96
Surveillance planes gathering evidence for serious crimes, like shootings and homicides, will help the police solve these crimes.	356	5.6%	10.1%	16.6%	36.5%	18.3%	12.9%	3.59
Surveillance planes will prevent people from engaging in criminal activity.	356	15.5%	25.0%	16.9%	24.4%	5.1%	13.2%	2.75
Surveillance planes will encourage people to report criminal activity to the police.	356	14.0%	27.8%	22.2%	19.4%	3.7%	12.9%	2.66
Average Scale Item Score [2]								3.07

Notes: Highlighted cells under "respondent level of agreement" indicate the most frequent response for each question. [1] Mean question response is calculated as the average score for each individual question across all respondents, excluding participants with missing data on that individual question.

[2] The average item score was calculated by adding together scores for each participant on all items on the scale and taking the average of that sum. Participants with missing data for any item were excluded from this calculation, as their scores could not be summed with missing data.

#### BELIEFS ABOUT PRIVACY AND THE AIR PROGRAM

A second scale related specifically to the AIR program was also developed, this time concerning privacy and the AIR planes. This was especially useful considering privacy concerns that had been raised in the media and by civil rights organizations with respect to the program. As shown in Table 16, the Cronbach's alpha is within the desired range for this scale.

Table 16: Beliefs about Privacy and the AIR Program Scale

Variable	Minimum- Maximum	Avg. Item Score (St. Dev)	α*	Missing
Attitudes about privacy	1.00 - 5.00	3.05 (0.94)	0.81	N = 48 (13.48%)

Note: N = 356.

Scale values: 1 strongly disagree; 5 strongly agree.

The questions included in the scale on privacy were: if the planes violate the respondents' privacy; if the planes gather too much private information; if the information collected by the planes outweighs the loss



<sup>\*</sup> Cronbach's alpha score between 0.70-0.90 indicates that the items in the scale have good reliability with one another.

of privacy; and if the planes could be classified as excessive monitoring. The average item score on this scale was 3.05 (S.D. = 0.94), suggesting that individuals were neutral on the issues of privacy and the surveillance planes. In general, then, while respondents did not believe the planes protected individuals' privacy, they also did not believe the planes excessively violated privacy either.

**Table 17: Beliefs about Privacy and the AIR Program Frequency Table** 

Question	N	Respondent Level of Agreement					Mean	
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Missing	Question Response [1]
		1	2	3	4	5		
Surveillance planes violate my privacy.	356	7.9%	30.3%	15.5%	21.6%	12.1%	12.6%	3.00
The surveillance planes gather too much private information about me.	356	7.3%	30.6%	21.1%	18.5%	9.3%	13.2%	2.91
The information collected from the surveillance planes is worth my loss of privacy. [3]	356	13.5%	20.5%	23.3%	23.3%	6.5%	12.9%	2.87
Surveillance planes are excessive monitoring.	356	5.1%	25.3%	17.7%	27.8%	11.2%	12.9%	3.17
Average Scale Item Score [2]								3.05

Notes: Highlighted cells under "respondent level of agreement" indicate the most frequent response for each question. [1] Mean question response is calculated as the average score for each individual question across all respondents, excluding participants with missing data on that individual question.

[3] Item is reverse coded.

# SUMMARY WITH COMPARISON TO EARLY LAUNCH SURVEY

As shown in Table 18, there was very little difference in the average item score from the Early Launch survey to the Wave 2 survey on the scales for Attitudes about Effectiveness and Beliefs about Privacy as concerning the AIR program. For both scales in both surveys, the average response indicated a neutral attitude or belief, and the difference in score was 0.03 or less. While statistical analysis would be needed to tell if these differences were significant, the differences are not really substantial enough to warrant concern.

Table 18: Comparison of Average Item Score for Early Launch and Wave 2 Surveys

Scale	Early Launch Survey Results	Wave 2 Survey Results
Attitudes about the Effectiveness of the AIR Program	3.10 (Neutral)	3.07 (Neutral)
Beliefs about Privacy and the AIR Program	3.07 (Neutral)	3.05 (Neutral)



<sup>[2]</sup> The average item score was calculated by adding together scores for each participant on all items on the scale and taking the average of that sum. Participants with missing data for any item were excluded from this calculation, as their scores could not be summed with missing data.

# SECTION IV: PERCEPTIONS OF AIR PROGRAM – FINDINGS BY RACE AND NEIGHBORHOOD CRIME LEVEL

As with the Perceptions of Neighborhood Conditions and Crime, the Perceptions of the AIR Program by race and neighborhood crime level are examined in this section using boxplots and two-way ANOVA tests. Additional analysis is also done with respect to support for the continued use of AIR planes by respondents considering other demographic indicators, such as education, employment status, gender and age.

As with the other analyses in this study, the findings only suggest if there is a relationship between individuals displaying a certain demographic characteristic and support for the AIR program or agreement with a statement. There is no implied causation in either direction.

#### SUPPORT FOR CONTINUED USE OF SURVEILLANCE PLANES

As a first step, the relationship between respondents' support for the continued use of the surveillance planes and their various demographic characteristics (specifically, race, education, employment, gender, age and neighborhood crime level) were examined using Chi squared tests. The results are shown in Table 19 and show that race ( $\chi^2 = 7.64$ , p = .006), education ( $\chi^2 = 4.23$ , p = .040), employment status ( $\chi^2 = 7.47$ , p = .024), and age group ( $\chi^2 = 26.08$ , p = .000) were significant. For each of these groups, respondents saying they supported continued use of the planes were a majority compared to those who did not support or were unsure of their support of the program with the exception of the youngest age group – only 26.8% of respondents ages 18-34 supported the program. The strongest support of the program was shown by respondents who were retired or disabled as well as those who were between the ages of 35 and 64; for both groups, 7 in 10 respondents supported the program.



Table 19: Relationship between Support for Continued Use of AIR Planes and Demographic Variables

	Support for Contin	Support for Continued Use of Surveillance Planes				
	No/Unsure	Yes	Total	Chi Sq (sig)		
Race				7.64 (.006)		
Black	60 (30.8%)	135 (69.2%)	195			
White	39 (49.4%)	40 (50.6%)	79			
Education (Associate's or higher)				4.23 (.040)		
Yes	66 (44.6%)	82 (55.4%)	148			
No	46 (32.2%)	97 (67.8%)	143			
Employment Status				7.47 (.024)		
Employed	70 (45.8%)	83 (54.3%)	153			
Not employed	9 (32.1%)	19 (67.9%)	28			
Retired/disabled	32 (29.6%)	76 (70.4%)	108			
Gender				3.32 (.068)		
Female	57 (33.0%)	116 (67.1%)	173			
Male	55 (44.0%)	70 (56.0%)	55			
Age Group				26.08 (.000)		
18-34 years old	30 (73.2%)	11 (26.8%)	41			
35-64 years old	49 (29.9%)	115 (70.1%)	164			
65 years or older	34 (37.4%)	57 (62.6%)	91			
Crime Level				0.00 (.970)		
Low crime neighborhood	40 (38.8%)	63 (61.2%)	103			
High crime neighborhood	83 (37.9%)	136 (62.1%)	219			

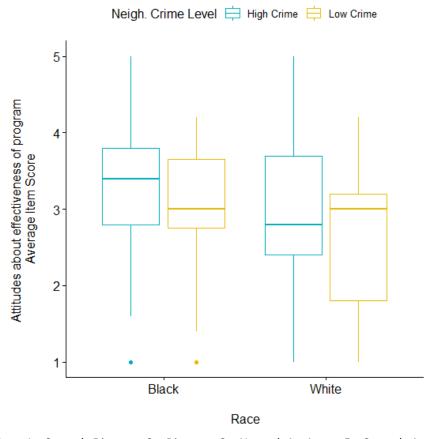
Notes: Most frequent responses for each factor highlighted in light blue. Some demographic categories excluded because N was too small for statistical analysis.

#### ATTITUDES ABOUT THE EFFECTIVENESS OF THE AIR PROGRAM

The boxplot shown in Figure 10 suggests that Black respondents living in high crime neighborhoods were the most likely to agree that the surveillance planes were effective tools for police in gathering evidence or preventing crime. This is because the plot for these respondents has the highest average score compared to Black respondents in low crime neighborhoods and White respondents in either low or high crime neighborhoods. Black respondents in high and low crime neighborhoods also have more consistent scores compared to White respondents in those neighborhoods, respectively.



Figure 10: Attitudes about Effectiveness of Program by Race and Neighborhood Crime Level



Note: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

The two-way ANOVA results shown in Table 20 suggest that the differences on Attitudes about the Effectiveness of the AIR Program by both race (F = 20.9, p<.001) and neighborhood crime level (4.6, p = 0.033) are statistically significant. There was, however, no interaction between the two factors.

Table 20: Attitudes about Effectiveness of AIR Program by Race and Neighborhood Crime Level

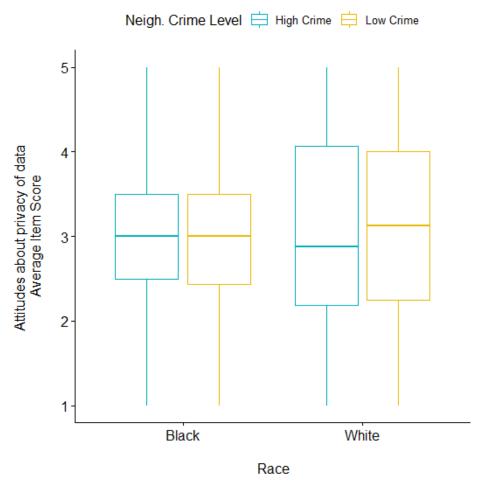
	F	p. value	Partial Eta Squared
Race	20.94	<.001	0.035
Neighborhood crime level	4.59	.033	0.016
Race*neighborhood crime level	0.00	.968	0.000

# BELIEFS ABOUT PRIVACY AND THE AIR PROGRAM

Figure 11 shows the boxplots for Beliefs about Privacy and the AIR Program. While the average score was similar across the four groups, the results for Black respondents in both low and high crime neighborhoods were much more consistent than those for White respondents in either type of neighborhood.



Figure 11: Beliefs about Privacy by Race and Neighborhood Crime Level



Note: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

As shown in Table 21, neither race nor neighborhood crime level had a statistically significant relationship with Beliefs about Privacy. There was also no interaction between the two factors.

Table 21: Beliefs about Privacy by Race and Neighborhood Crime Level

	F	p. value	Partial Eta Squared
Race	1.42	.235	0.003
Neighborhood crime level	0.10	.755	0.000
Race*neighborhood crime level	0.51	.477	0.002

# SUMMARY WITH COMPARISON TO EARLY LAUNCH SURVEY

The results of the Wave 2 survey suggested that both race and neighborhood crime level had statistically significant relationships with views about the Effectiveness of the AIR Program. This is different than the findings of the Early Launch survey, when only race was found to have a statistically significant relationship with views on effectiveness. The Wave 2 survey results did not find statistically significant relationships



between either of the factors and views on Privacy and the AIR Program; the results of the Early Launch survey had found such a relationship between race and views on privacy. There were no interactions found between race and neighborhood crime level for either scale.



# **SECTION V - PERCEPTIONS OF POLICE - OVERALL FINDINGS**

The final set of scales included in this analysis concerned the perceptions of police. Respondents' perceptions of police likely have influence on whether they are supportive of policing initiatives, especially initiatives using new technologies such as the AIR program. In a city such as Baltimore, in which there have been issues raised about policing as well as high crime rates, it is useful to understand respondents' views of the police to understand how they might react to programs such as the surveillance planes.

The five scales that were used in this study were based on the literature and were: (1) perceptions of police legitimacy, (2) perceptions of procedural justice, (3) perceptions of police bias, (4) willingness to partner with police, and (5) willingness to contact police to report a crime. Three of the five scales (Police Legitimacy, Police Bias, and Willing to Contact Police) had Cronbach's alpha scores indicating that there was good reliability among the items, while the other two items (Procedural Justice and Willing to Partner with Police) had scores outside of the "desirable" range but still within the "acceptable" range (Table 22).

**Table 22: Perceptions of Police Scales** 

Variables	Minimum- Maximum	Avg. Item Score (St. Dev)	α*	Missing
Police Legitimacy	1.00 - 5.00	2.82 (0.80)	0.81	N = 86 (24.16%)
Procedural Justice	1.00 - 5.00	2.95 (0.85)	0.92	N = 113 (31.74%)
Police Bias	1.00 - 5.00	3.54 (0.81)	0.75	N = 85 (23.88%)
Willing to Partner with Police	1.00 - 4.00	2.60 (0.62)	0.60	N = 73 (20.51%)
Willing to Contact Police	1.00 - 4.00	3.13 (0.60)	0.80	N = 72 (20.22%)

N = 356.

Values for Scale Ranges:

Police Legitimacy, Procedural Justice, Police Bias: 1 strongly disagree; 5 strongly agree.

Willing to Partner with Police, Willing to Contact Police: 1 very unlikely; 4 very likely.

The results from each scale are discussed separately below.

## PERCEPTIONS OF POLICE LEGITIMACY

Perceptions of police legitimacy are based on trust in the police and perceived obligation to obey police (Gau 2011; Mazerolle et al., 2013; Sargeant & Kochel, 2018; Heen et al., 2018). More positive perceptions of police legitimacy may drive how respondents support policing initiatives that target crime, such as the AIR program.

Perceptions of police legitimacy are based on trust in the police and perceived obligation to obey police. More positive perceptions of police legitimacy may drive how respondents support initiatives that target crime.

The questions on the survey concerning perceptions of police legitimacy were that: people in the respondents' community were well-protected by the police; the



<sup>\*</sup> Cronbach's alpha score between 0.70-0.90 indicates that the items in the scale have good reliability with one another.

police can be trusted to make decisions that are right for the respondents' community; that people should always listen to the police, even if the officer is wrong; that police are a part of the neighborhood; that the respondent is comfortable around the police; and that the respondent generally supports how the police act in their community (Table 23). The average item score for this scale was 2.82 (S.D. = 0.80), indicating that respondents had a neutral view of police legitimacy. In other words, they saw the police as neither legitimate nor illegitimate.

**Table 23: Perceptions of Police Legitimacy Frequency Table** 

Question	N	N Respondent Level of Agreement						Mean
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Missing	Question Response [1]
		1	2	3	4	5		
People in my community are well protected by the police.	356	11.5%	32.0%	20.2%	17.4%	2.0%	17.0%	2.59
The police can be trusted to make decisions that are right for my community.	356	11.8%	26.7%	21.9%	21.1%	2.0%	16.6%	2.70
People should always listen to police officers even if they believe that a police officer is wrong.	356	14.0%	26.4%	17.4%	21.6%	4.8%	15.7%	2.72
The police are a part of my neighborhood.	356	13.2%	32.3%	14.9%	20.5%	3.4%	15.7%	2.63
I feel comfortable around the police.	356	8.2%	14.3%	16.3%	40.5%	7.0%	13.8%	3.28
I generally support how the police act in my community.	356	7.0%	18.5%	18.5%	34.8%	2.8%	18.3%	3.10
Average Scale Item Score [2]								2.82

Notes: Highlighted cells under "respondent level of agreement" indicate the most frequent response for each question. [1] Mean question response is calculated as the average score for each individual question across all respondents, excluding participants with missing data on that individual question.

[2] The average item score was calculated by adding together scores for each participant on all items on the scale and taking the average of that sum. Participants with missing data for any item were excluded from this calculation, as their scores could not be summed with missing data.

## PERCEPTIONS OF PROCEDURAL JUSTICE

Procedural justice refers to approval of the police's decision-making process (Gau, 2011; Mazerolle et al., 2013). Procedural justice is usually linked to police legitimacy, because if policing initiatives or actions have procedural justice they are more likely to be viewed as legitimate and this, in turn, means the public may be more likely to support them.

Procedural justice refers to approval of the police's decision-making process.



In this survey, perceptions of procedural justice were measured by asking if police in the respondents' community: treat people with dignity and respect; treat people fairly; take time to listen to people; explain their decisions to people they deal with; and make decisions based on facts and the law and not on personal opinions (Table 24). The average item score for this scale was 2.95 (S.D. = 0.80), indicating a neutral response concerning perceptions of police legitimacy.

**Table 24: Perceptions of Procedural Justice Frequency Table** 

Question	N	Respondent Level of Agreement					Mean	
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Missing	Question Response [1]
		1	2	3	4	5		
Police in my community treat people with dignity and respect.	356	6.5%	16.0%	26.7%	27.0%	1.4%	22.5%	3.01
Police in my community treat people fairly.	356	4.5%	14.6%	28.9%	28.1%	1.1%	22.8%	3.09
Police in my community take time to listen to people.	356	6.7%	13.2%	27.5%	28.1%	1.1%	23.3%	3.05
Police in my community explain their decisions to the people they deal with.	356	6.5%	19.1%	25.3%	23.9%	0.6%	24.7%	2.91
Police in my community make decisions based on facts and the law, and not their own personal opinions.	356	7.3%	14.0%	29.2%	24.2%	0.8%	24.4%	2.96
Average Scale Item Score [2]								2.95

Notes: Highlighted cells under "respondent level of agreement" indicate the most frequent response for each question. [1] Mean question response is calculated as the average score for each individual question across all respondents, excluding participants with missing data on that individual question.

[2] The average item score was calculated by adding together scores for each participant on all items on the scale and taking the average of that sum. Participants with missing data for any item were excluded from this calculation, as their scores could not be summed with missing data.

#### PERCEPTIONS OF POLICE BIAS

Respondents were asked if they thought police acted with bias based on people's race/ethnicity, earnings or age (Table 25). Such perceptions of bias would be likely to decrease support for policing initiatives, even if a specific initiative was not driven by the bias itself. The average item score on this scale was 3.54 (S.D. = 0.81), indicating that there was a perception of bias with respect to police interactions with the public.

Respondents were also asked if they thought police acted with bias based on people's race/ethnicity, earnings or age.



**Table 25: Perceptions of Police Bias Frequency Table** 

Question	N	N Respondent Level of Agreement						Mean
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Missing	Question Response [1]
		1	2	3	4	5		
Police officers treat people differently based on their race/ethnicity.	356	2.0%	9.3%	18.3%	34.0%	16.6%	19.9%	3.67
Police officers treat people differently based on how much they earn.	356	0.6%	16.9%	19.9%	28.1%	12.4%	22.2%	3.45
Police officers treat people differently based on their age.	356	1.1%	12.6%	18.5%	39.6%	8.4%	19.7%	3.52
Average Scale Item Score [2]								3.54

Notes: Highlighted cells under "respondent level of agreement" indicate the most frequent response for each question. [1] Mean question response is calculated as the average score for each individual question across all respondents, excluding participants with missing data on that individual question.

[2] The average item score was calculated by adding together scores for each participant on all items on the scale and taking the average of that sum. Participants with missing data for any item were excluded from this calculation, as their scores could not be summed with missing data.

## WILLINGNESS TO PARTNER WITH POLICE

Individuals who cooperate with police by, for example, reporting crimes or providing information in response to inquiries, may also be more likely to support policing initiatives, such as the AIR program.

Individuals who cooperate with police may also be more likely to support policing initiatives, such as the AIR program.

This survey used two scales to measure willingness to cooperate with police. The first, Willingness to Partner with Police, asked respondents how willing they were to: patrol as part of an organized community group; help the police solve a crime or find a suspect; and attend a community meeting with police about crime in their neighborhood (Table 26). The average item score of 2.60 (S.D. = 0.62) represents a "likely" score, suggesting that respondents were willing to partner with police.



**Table 26: Willingness to Partner with Police Frequency Table** 

Question	N	N Respondent Level of Agreement					Mean
		Very Unlikely	Unlikely	Likely	Very Likely	Missing	Question Response [1]
		1	2	3	4		
Patrol the streets as a part of an organized community group.	356	16.9%	36.0%	24.2%	5.6%	17.4%	2.22
Help and assist the police to solve a crime or find a suspect.	356	9.8%	22.2%	38.2%	12.4%	17.4%	2.64
Attend a community meeting with the police to discuss crime in your neighborhood.	356	5.1%	12.9%	48.3%	16.9%	16.9%	2.93
Average Scale Item Score [2]							2.60

Notes: Highlighted cells under "respondent level of agreement" indicate the most frequent response for each question. [1] Mean question response is calculated as the average score for each individual question across all respondents, excluding participants with missing data on that individual question.

## WILLINGNESS TO CONTACT POLICE

The second scale developed to measure cooperation with police concerned the respondents' Willingness to Contact Police, specifically when: they were the victim of any crime; to report a minor or misdemeanor crime; to report a serious or felony crime; or to report serious activity. As with the Willingness to Partner with Police, an individual's willingness to contact

Participants were asked about their likelihood of contacting the police to report criminal activity, including when they were a victim, to report a minor (misdemeanor) crime, to report a major (felony) crime, or to report suspicious activity.

police may also indicate a higher likelihood to support policing initiatives. The average item score of 3.13 (S.D. = 0.60) suggests that respondents were also likely to contact police to report the various crimes or criminal activities (Table 27).



<sup>[2]</sup> The average item score was calculated by adding together scores for each participant on all items on the scale and taking the average of that sum. Participants with missing data for any item were excluded from this calculation, as their scores could not be summed with missing data.

**Table 27: Willingness to Contact Police Frequency Table** 

Question	N Respondent Level of Agreement					nt	Mean
		Very Unlikely	Unlikely	Likely	Very Likely	Missing	Question Response [1]
		1	2	3	4		
To report any crime where you were the victim.	356	2.5%	5.1%	34.3%	41.6%	16.6%	3.38
To report a minor (misdemeanor) crime, such vandalism.	356	5.6%	14.0%	47.2%	16.9%	16.3%	2.90
To report a serious (felony) crime, such as an assault.	356	1.4%	6.7%	26.2%	26.8%	18.8%	3.34
To report suspicious activity.	356	7.0%	10.1%	47.8%	16.6%	18.5%	2.91
Average Scale Item Score [2]							3.13

Notes: Highlighted cells under "respondent level of agreement" indicate the most frequent response for each question. [1] Mean question response is calculated as the average score for each individual question across all respondents, excluding participants with missing data on that individual question.

## SUMMARY WITH COMPARISON TO EARLY LAUNCH SURVEY

Overall, the results on the scales related to Perceptions of Police suggested that respondents were neutral with regard to Police Legitimacy and Procedural Justice, although respondents also did agree that police exhibited bias by treating people differently on characteristics such as race and ethnicity or age. Despite the neutral feelings and perceptions of bias, the responses also suggested that survey participants were willing to partner with police with regard to crime control and to contact police to report crimes.

For four of the five scales, the categorical result of the responses was the same as that found in the Early Launch survey (i.e., respondents were neutral on Police Legitimacy and Procedural Justice and likely to cooperate with police by partnering or contacting them), as shown in Table 28. The only scale for which there was a change from the Early Launch survey to the Wave 2 survey concerned Police Bias, as survey responses in 2020 resulted in a "neutral" score. All of the scales except for Willing to Partner with Police did have changes in the average item score of more than 0.10; however, without statistical analysis the significance of these changes is unknown.

Table 28: Comparison of Average Item Score for Early Launch and Wave 2 Surveys

Scale	<b>Early Launch Survey Results</b>	Wave 2 Survey Results
Police Legitimacy	2.73 (Neutral)	2.82 (Neutral)
Procedural Justice	2.80 (Neutral)	2.95 (Neutral)
Police Bias	3.41 (Neutral)	3.54 (Agree)
Willing to Partner with Police	2.58 (Likely)	2.60 (Likely)
Willing to Contact Police	3.20 (Likely)	3.13 (Likely)



<sup>[2]</sup> The average item score was calculated by adding together scores for each participant on all items on the scale and taking the average of that sum. Participants with missing data for any item were excluded from this calculation, as their scores could not be summed with missing data.

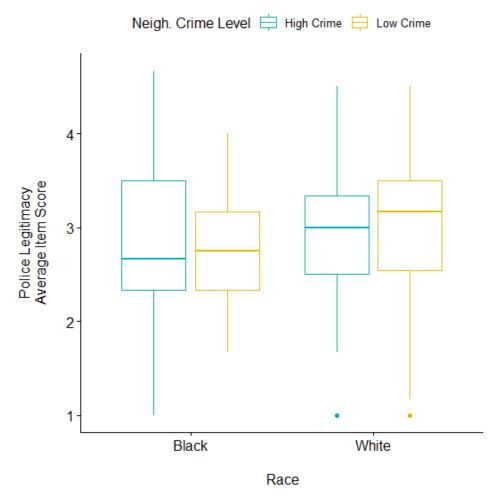
# SECTION VI: PERCEPTIONS OF POLICE – FINDINGS BY RACE AND NEIGHBORHOOD CRIME LEVEL

The issues concerning policing and high crime rates in Baltimore, mentioned at the start of the last section, often vary in both perception and impact by race and neighborhood crime level in the city. Therefore, it is important to consider whether either of these factors affect any of the scales presented in the last section or if they have an interaction with respect to the Perceptions of Police.

#### PERCEPTIONS OF POLICE LEGITIMACY

As shown in the boxplots presented in Figure 12, Black respondents living in low and high crime neighborhoods provided lower average scores for Perceptions of Police Legitimacy than White respondents living in either low or high crime neighborhoods. However, Black respondents living in high crime neighborhoods had the widest range of responses.

Figure 12: Police Legitimacy by Race and Neighborhood Crime Level



Note: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree



The results of the two-way ANOVA test shown in Table 29 suggest that the differences by race with respect to Perceptions of Police Legitimacy are not statistically significant. In addition, it appears there is not an interaction between race and neighborhood crime level.

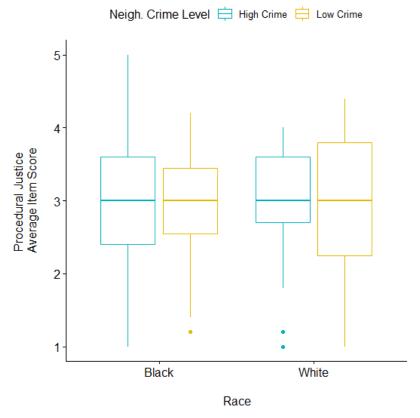
**Table 29: Police Legitimacy by Race and Neighborhood Crime Level** 

	F	p. value	Partial Eta Squared
Race	1.87	.173	0.006
Neighborhood crime level	0.01	.935	0.000
Race*neighborhood crime level	0.34	.563	0.001

## PERCEPTIONS OF PROCEDURAL JUSTICE

Figure 13 provides the boxplots for the survey responses on Perceptions of Procedural Justice by race and neighborhood crime level. While the average response was approximately the same for each group – both White and Black respondents in both high and low crime neighborhoods – White respondents in low crime neighborhoods had the least consistency in their responses, as suggested by the size of the box.

Figure 13: Procedural Justice by Race and Neighborhood Crime Level



Note: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree



The two-way ANOVA tests suggest that the small differences found by race and neighborhood crime level were not statistically significant (Table 30). In addition, there did not appear to be an interaction between the two factors.

Table 30: Perceptions of Procedural Justice by Race and Neighborhood Crime Level

	F	p. value	Partial Eta Squared
Race	0.00	.977	0.000
Neighborhood crime level	0.03	.865	0.000
Race*neighborhood crime level	0.01	.933	0.000

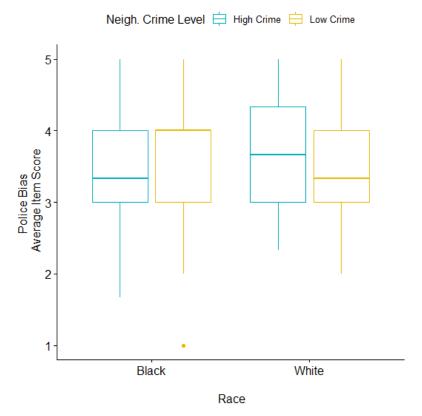
## PERCEPTIONS OF POLICE BIAS

Figure 14 displays the boxplots for Perceptions of Police Bias.<sup>7</sup> Black respondents in both low and high crime neighborhoods as well as White respondents in low crime neighborhoods had approximately the same range of responses to the questions concerning Perceptions of Police Bias. In contrast, White respondents living in high crime neighborhoods had both less consistent responses, as demonstrated by the wider box, and were more likely to agree that the police acted with bias, since their responses results in a higher average score.

<sup>&</sup>lt;sup>7</sup> For Black respondents living in low crime neighborhoods, the median case is approximately equivalent to that of the quartile marker, which is why only two horizontal lines appear (as opposed to three lines for the other three demographic groups). This is likely just an effect of the small sample sizes within the categories. A similar effect will be seen in Figure 15 and Figure 16.



Figure 14: Police Bias by Race and Neighborhood Crime Level



Note: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree

The two-way ANOVA test suggests that the differences in Perceptions of Police Bias by race and neighborhood crime level were not statistically significant (Table 31). In addition, there did not appear to be an interaction between the two factors on Perceptions of Police Bias.

**Table 31: Police Bias by Race and Neighborhood Crime Level** 

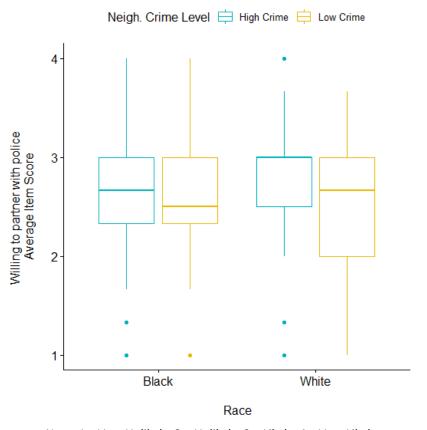
	F	p. value	Partial Eta Squared
Race	0.70	.405	0.001
Neighborhood crime level	0.23	.630	0.001
Race*neighborhood crime level	3.08	.081	0.013

## WILLINGNESS TO PARTNER WITH POLICE

The boxplots shown in Figure 15 suggest that Black respondents had the same range of respondents regardless of if they lived in low or high crime neighborhoods, but respondents living in high crime neighborhoods were more likely to partner with police than those living in low crime neighborhoods. White respondents in high crime neighborhoods had the most consistent responses, while those in low crime neighborhoods had the least consistent responses.



Figure 15: Willingness to Partner with Police by Race and Neighborhood Crime Level



Note: 1 = Very Unlikely, 2 = Unlikely, 3 = Likely, 4 = Very Likely

The two-way ANOVA results suggest that the differences by race and neighborhood crime level were not statistically significant and that there was no interaction between the two factors for Willingness to Partner with Police (Table 32).

Table 32: Willingness to Partner with Police by Race and Neighborhood Crime Level

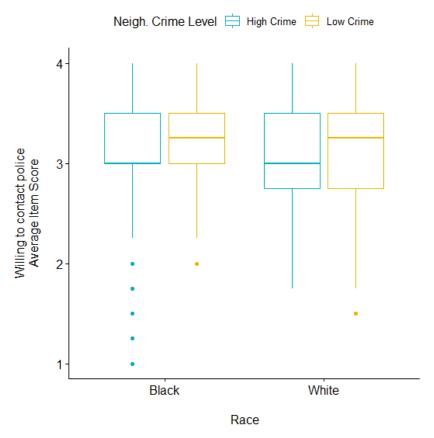
	F	p. value	Partial Eta Squared
Race	0.10	.755	0.003
Neighborhood crime level	1.74	.189	0.007
Race*neighborhood crime level	1.02	.314	0.004

# WILLINGNESS TO CONTACT POLICE

Figure 16 displays the boxplots for the survey results with respect to Willingness to Contact Police by race and neighborhood crime level. The results suggest that Black respondents had more consistent results than White respondents, regardless of neighborhood crime level. In addition, individuals living in low crime neighborhoods were more likely to contact police to report a crime or suspicious activity, regardless of the respondents' race.



Figure 16: Willingness to Contact Police by Race and Neighborhood Crime Level



Note: 1 = Very Unlikely, 2 = Unlikely, 3 = Likely, 4 = Very Likely

The two-way ANOVA results in Table 33, however, suggest that these differences by race and neighborhood crime level are not statistically significant. The ANOVA results also suggest there was not an interaction between the two factors with Willingness to Contact Police.

Table 33: Willingness to Contact Police by Race and Neighborhood Crime Level

	F	p. value	Partial Eta Squared
Race	0.10	.755	0.002
Neighborhood crime level	1.04	.309	0.004
Race*neighborhood crime level	0.16	.687	0.001

#### SUMMARY WITH COMPARISON TO EARLY LAUNCH SURVEY

The Wave 2 survey results did not find statistically significant relationships between any of the scales for Perceptions of Police and either race or neighborhood crime level. These results generally match those found in the Early Launch survey as well, although there were two statistically significant relationships found there: between neighborhood crime level and Perceptions of Procedural Justice and between race and Willingness to Contact Police. There were no interactions found for Perceptions of Police with the results of either the Wave 2 or Early Launch surveys.



## **SUMMARY OF FINDINGS**

Overall, the findings from the Wave 2 survey were generally similar to those of the Early Launch survey. As can be seen in Table 34, the results of the two surveys differed for only two scales: Social Cohesion & Isolation and Perceptions of Police Bias. In the former, the difference was only 0.04, while the difference for the latter was 3.41 compared to 3.54. In both cases, the results from the Wave 2 survey were more negative, but without statistical analysis (which cannot be conducted due to the sample size, as already discussed) the significance of these changes is unknown.

**Table 34: Overall Findings from Survey Responses** 

Topic	General Response – Early Launch Survey	General Response – Wave 2 Survey
Perceptions of Neighborhood Conditions and Crime		
Social Cohesion & Isolation	Positive	Neutral
Neighborhood Safety	Neutral	Neutral
Fear of Being a Victim of a Crime	Not really afraid	Not really afraid
Perceptions of AIR Program		
Effectiveness of the AIR Program	Neutral	Neutral
Privacy and the AIR Program	Neutral	Neutral
Perceptions of Police		
Police Legitimacy	Neutral	Neutral
Procedural Justice	Neutral	Neutral
Police Bias	Neutral	Agree
Willing to Partner with Police	Likely	Likely
Willing to Contact Police	Likely	Likely

Note: Shaded cells represent different general responses from the Early Launch and Wave 2 surveys.

The results of the Early Launch and Wave 2 surveys were also generally similar when comparing the findings by race and neighborhood crime level, as shown in Table 35. However, there were changes between the two surveys. For example, while the analysis of the Early Launch survey had found statistically significant differences by race with respect to Fear of Being a Victim of a Crime, Privacy and the AIR Program, and Willing to Contact Police, the differences by race in the Wave 2 results were not statistically significant. Similarly, the differences by neighborhood crime level for Fear of Being a Victim of a Crime and Procedural Justice were not statistically significant in the Wave 2 results but were significant in the Early Launch results. In contrast, the differences in Effectiveness of the AIR Program with respect to neighborhood crime level were statistically significant in the Wave 2 analysis but not in the Early Launch analysis. There were also no interactions found between race and neighborhood crime level for any of the scales in the Wave 2 analysis, whereas an interaction for Neighborhood Safety had been found in the analysis of the Early Launch data.

Table 35: Findings from Wave 2 Survey Responses by Race and Neighborhood Crime Level

Topic	Statistic	Statistically Significant Difference by	
	Race	Neighborhood Crime Level	
<b>Perceptions of Neighborhood Conditions and</b>	l Crime		
Social Cohesion & Isolation	Yes	Yes	No
Neighborhood Safety	Yes	Yes	No
Fear of Being a Victim of a Crime	No	No	No
Perceptions of AIR Program			
Effectiveness of the AIR Program	Yes	Yes	No
Privacy and the AIR Program	No	No	No
Perceptions of Police			
Police Legitimacy	No	No	No
Procedural Justice	No	No	No
Police Bias	No	No	No
Willing to Partner with Police	No	No	No
Willing to Contact Police	No	No	No

Note: Shaded cells indicate result was different from that found in Early Launch Survey.

#### PERCEPTIONS OF THE AIR PROGRAM

As with the findings from the Early Launch survey, a majority of respondents to the Wave 2 survey supported the use of the AIR surveillance planes in general. Support increased when respondents were asked about using the AIR program to investigate specific serious crimes (e.g., murders/homicides, armed robberies, carjackings, and non-fatal shootings), but was mixed for political protests or incidences of civil unrest as well as for traffic violations or accidents. Two-thirds of respondents who supported the program did so because they thought it would help solve crimes, while half of respondents thought it would lower the crime rate.

As discussed in the report for the results of the Early Launch survey, these findings might be surprising to some considering the mixed media coverage of the AIR program. However, the effort to focus the sample on high crime/high poverty communities in Baltimore likely had some effect on the survey results, especially considering that neighborhood crime level was found to be statistically significant with respect to differences in Attitudes about the Effectiveness of the AIR Program. They may also have been affected by the city's increase in gun crimes committed in 2021. While the most common reason respondents gave for opposing the program was they thought it would violate people's privacy, respondents overall were neutral about issues of privacy concerning the AIR program. This suggests the possibility that supporters of the program do not see the planes as substantially different from the cameras placed around the city that are designed to help police investigations and that record movements on private property.

#### PERCEPTIONS OF POLICE

The results of the Wave 2 survey also found that respondents were on average neutral toward police in the matters of legitimacy and procedural justice and that respondents were willing to partner with police and to contact police. These findings were all similar categorically to those of the Early Launch survey.



Only the finding concerning Perceptions of Police Bias differed between the two surveys, as responses to the Early Launch survey generated an average response of neutral for this scale while responses to the Wave 2 survey generated an average response of agreeing that there was bias. Of note, none of the differences by race or neighborhood crime level with respect to the perceptions of police were statistically significant.

These results indicate that city residents may be open to engaging with BPD with respect to current or new investigative programs, especially with respondents' overall results suggesting they are "likely" to partner with and contact the police. The findings on police bias, however, do suggest an area of caution for BPD.

#### PERCEPTIONS OF NEIGHBORHOOD CONDITIONS

The findings on perceptions of neighborhood conditions were generally positive or neutral and not substantially different from those of the Early Launch survey. The major difference, the shifting of respondents' overall scores from positive to neutral with respect to Social Cohesion & Isolation, may be a consequence of the continued effects of social distancing and other response measures to the COVID-19 pandemic. However, since the absolute change for this scale was not substantial, the effect of this change should not be overstated.

The other principal change with respect to neighborhood conditions was that differences in Fear of Being a Victim of a Crime were not statistically significant, unlike in the Early Launch analysis. This might be an effect of the city's increasing serious crime rate in 2021, especially as respondents' differences in feeling safe in their neighborhoods were statistically significant for both the Early Launch and Wave 2 results. The results might suggest that respondents feel the city overall is less safe even if the level safety in their individual neighborhoods has not changed.

#### **RECOMMENDATIONS**

No recommendations for the AIR program are offered at this time, due to the 4th Circuit U.S. Court of Appeals' finding that that the program was unconstitutional. However, the recommendations presented in the Early Launch survey for the AIR program could be used by the Baltimore Police Department when considering the implementation of other investigative programs utilizing new technologies. These recommendations were:

- (1) Expand communication about the program by the Baltimore City Police Department;
- (2) Community outreach to discuss challenges of and seek feedback for police initiatives; and
- (3) Targeted outreach with youth and young people.

Readers interested in these recommendations should consult the report on the Findings from the Early Launch Community Survey for more information.



## **LIMITATIONS**

The principal limitation for this study was the small response, which was discussed earlier in the Methodology section. The number of responses meant that previous plans to weight the data proportional to the city's population and to conduct additional statistical analyses on the data were not practical. This limits the opportunity to draw conclusions about the differences between the two surveys and to make causal conclusions in the findings.

As such, while the demographics of the survey participants are approximately the same as those of adult city residents for some demographic characteristics, readers should be cautious in interpreting the findings. The results in this report should only be viewed as the respondents' assessments of the AIR program, neighborhood conditions, and policing in Baltimore.



# **REFERENCES**

- Anderson, E. (1999). *Code of the Street: Decency, Violence and the Moral Life of the Inner City*. W.W. Norton & Company
- Brunson, R. K., & Miller, J. (2006). Young black men and urban policing in the United States. *British journal of criminology*, *46*(4), 613-640.
- Crime and Justice Institute. (2019). Feedback from the Field: A Summary of Focus Groups with Baltimore Police Officers. Report prepared for the Baltimore Police Department Monitoring Team. <a href="http://www.crj.org/assets/2019/08/Feedback-from-the-Field\_A-Summary-of-Focus-Groups-with-Baltimore-Police-Officers\_2019.pdf">http://www.crj.org/assets/2019/08/Feedback-from-the-Field\_A-Summary-of-Focus-Groups-with-Baltimore-Police-Officers\_2019.pdf</a>.
- Fagan, J., & Davies, G. (2000). Street stops and broken windows: Terry, race, and disorder in New York City. *Fordham Urb. L.J.*, *28*(2), 457-504.
- Ferraro, K. F. (1995). Fear of crime: Interpreting victimization risk. SUNY press.
- Forrest, R., & Kearns, A. (2001). Social cohesion, social capital and the neighbourhood. *Urban studies*, *38*(12), 2125-2143.
- Gau, J. M. (2011). The convergent and discriminant validity of procedural justice and police legitimacy: An empirical test of core theoretical propositions. *Journal of Criminal Justice*, *39*(6), 489-498.
- Heen, M. S., Lieberman, J. D., & Miethe, T. D. (2018). The thin blue line meets the big blue sky: Perceptions of police legitimacy and public attitudes towards aerial drones. *Criminal Justice Studies*, 31(1), 18-37.
- Jackson, J., Bradford, B., Hohl, K., & Farrall, S. (2009). Does the fear of crime erode public confidence in policing? *Policing: a journal of policy and practice*, *3*(1), 100-111.
- Jefferson, T., & Walker, M. A. (1993). Attitudes to the police of ethnic minorities in a provincial city. *The British Journal of Criminology*, *33*(2), 251-266.
- Johnson, D., Wilson, D. B., Maguire, E. R., & Lowrey-Kinberg, B. V. (2017). Race and perceptions of police: Experimental results on the impact of procedural (in) justice. *Justice Quarterly*, *34*(7), 1184-1212.
- Mazerolle, L., Bennett, S., Davis, J., Sargeant, E., & Manning, M. (2013). Procedural justice and police legitimacy: A systematic review of the research evidence. *Journal of experimental criminology*, *9*(3), 245-274.
- Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annual review of sociology*, 24(1), 1-24.



- Prudente, Tim. (2021, June 25). Federal Appeals Court Rebukes Baltimore Spy Plane Program, Likely Blocks Access to Cache of Remaining Footage. *Baltimore Sun*. <a href="https://www.baltimoresun.com/maryland/baltimore-city/bs-md-ci-cr-spy-plane-decision-20210624-avfotbqo5zdwjfutok3oz6hno4-story.html">https://www.baltimoresun.com/maryland/baltimore-city/bs-md-ci-cr-spy-plane-decision-20210624-avfotbqo5zdwjfutok3oz6hno4-story.html</a>.
- Sampson, R. J., Morenoff, J. D., & Gannon-Rowley, T. (2002). Assessing "neighborhood effects": Social processes and new directions in research. *Annual review of sociology*, *28*(1), 443-478.
- Sampson, R. J., & Raudenbush, S. W. (2004). Seeing disorder: Neighborhood stigma and the social construction of "broken windows". *Social psychology quarterly*, *67*(4), 319-342.
- Sampson, R. J., Raudenbush, S. W., & Earls, F. (1997). Neighborhoods and violent crime: A multilevel study of collective efficacy. *Science*, *277*(5328), 918-924.
- Sargeant, E., & Kochel, T. R. (2018). Re-examining the normative, expressive, and instrumental models: how do feelings of insecurity condition the willingness to cooperate with police in different contexts?. *Policing and society*, *28*(7), 823-840.
- Scarborough, B. K., Like-Haislip, T. Z., Novak, K. J., Lucas, W. L., & Alarid, L. F. (2010). Assessing the relationship between individual characteristics, neighborhood context, and fear of crime. *Journal of criminal justice*, *38*(4), 819-826.
- Taylor, T. J., Turner, K. B., Esbensen, F. A., & Winfree Jr, L. T. (2001). Coppin' an attitude: Attitudinal differences among juveniles toward police. *Journal of criminal justice*, *29*(4), 295-305.
- Warr, M. (2000). Fear of crime in the United States: Avenues for research and policy. *Criminal justice*, *4*(4), 451-489.
- Weitzer, R., & Tuch, S. A. (1999). Race, class, and perceptions of discrimination by the police. *Crime & Delinquency*, 45(4), 494-507.



## APPENDIX A: SAMPLE AND SAMPLING PROCEDURE

The text in this appendix in Step One: Develop Crime/Poverty Index and Early Launch Survey: Data Collection comes directly from the Early Launch report. It is provided here for readers' reference.

The Schaefer Center research team based the survey sampling procedure on the goal of trying to obtain a substantial proportion of responses from those most affected by crime in the city and, as a result, potentially most affected by the results and effectiveness of the AIR program.

## STEP ONE: DEVELOP CRIME/POVERTY INDEX

The Schaefer Center team created a crime/poverty index for all Baltimore City census block groups with data from the Baltimore Police Department and the U.S. Census Bureau. The purpose of the index was to identify the areas of the city with the highest concentrations of crime and poverty to ensure that the residents most impacted by violent crime would have a higher probability of being included in the survey. Seventy-five percent (75%) of the addresses included in the sampling frame were from census block groups with the highest concentration of crime and poverty. The remaining 25% of the addresses were from the rest of the city. This strategy ensured the opinions of residents in areas most impacted by violent crime would be documented.

To identify high crime neighborhoods, crime incident data was downloaded from the Open Baltimore portal and filtered to include specific violent offenses: homicides, shootings, robberies (which include carjackings and crimes occurred on the street, in commercial buildings, and in residential homes), aggravated assaults, and common assaults. The data spanned from January 1, 2019, to March 31, 2020, and contained the location of the crime incident. Geographic Information Systems (GIS) format was used to map out location of these violent offenses, and they were aggregated to the census block group level.

All census block groups in the city were then ranked on two dimensions of crime: presence and strength. The first dimension was based on the presence of violent offenses that occurred within each census block group, where block groups were ranked from 0 to 5 on the presence of each of the violent offense types (homicides, shootings, robberies, aggravated assaults, and common assaults), with a ranking of 5 indicating the presence of all offenses. A ranking of 4 indicated that at least three offense types were present; a ranking of 3 indicated that at least two offense types were present, one of which must be homicide; a ranking of 2 indicated that at least one offense type was present, but it was not homicide; and a ranking of 1 indicated that at least one offense type was present, but it was not homicide or shootings. All other census block groups were ranked at zero.

The second dimension was based on the magnitude of the violent offenses that occurred within each census block group. The block groups were ranked again from 0 to 5, and these scores were based on the number of crimes in relation to the average block group. For each crime, block groups were flagged if the crime rate was more than one standard deviation above the average block group. Block groups were then



ranked based on the number of crimes they were flagged for. When a block group was flagged for at least three of the crimes, or at least two crimes if they were homicide and shootings, they were ranked at the highest score (5) on this dimension. A ranking of 4 indicated that homicides and shootings were both greater than average or homicides alone were greater than one standard deviation above the mean. A ranking of 3 indicated that at least three crimes were above average, one of which must be homicides at least one standard deviation above the average. A ranking of 2 indicated at least two crimes were at least one standard deviation above the mean. A ranking of 1 indicated at least one crime was at least one standard deviation above the mean. All other census block groups were ranked at zero.

The final step in identifying block groups for oversampling in the survey sample used demographic data. Block groups that ranked at the highest ranking (5) for either presence or magnitude of crime were assessed by their poverty rate. Those block groups who had a poverty rate greater than 25% were included in the high crime/high poverty grouping (N = 79). Block groups that did not have the highest rankings of either presence or magnitude of crime but had a poverty rate of 20% or greater were examined for their potential inclusion in the high crime/high poverty grouping. A manual inspection of these block groups was conducted, and three block groups were moved to the high crime/high poverty grouping, mainly due to the unusually high rates of one particular offense type within the census block group.

#### EARLY LAUNCH SURVEY: DATA COLLECTION

Using census block groups as a sampling frame, through its sample vendor the research team used address-based sampling (ABS) to select a random sample of 32,000 residential addresses from the identified census block groups, with 75% of the sample being from the high crime/high poverty grouping and the remaining 25% from the rest of the city's block groups. The addresses were then phone matched by the vendor.

A total of 20,649 addresses (64.5%) were matched to a phone number. Of the matched phone numbers, 59.3% were matched to a cell phone number, and the remaining 40.7% were matched to a landline phone number. Sample records with a telephone phone number were called by a vendor, and those that did not have a telephone number match (N = 11,351) were mailed a letter inviting them to either call into the call center to complete the survey or to go to the project website (<a href="http://airsurvey.ubalt.edu">http://airsurvey.ubalt.edu</a>) with a unique code to access the web version of the survey. After about two weeks of calling, sample records with a phone number but an invalid number (e.g., disconnected, business, and fax numbers) were mailed an invitation letter.

Data collection for the study commenced on June 2, 2020, with the start of outbound calling. The invitation letters were mailed out over 5 waves between June 11 to June 24, and the project web site was available for completing the survey until July 17, 2020. Outbound calls were made Monday-Friday 10 a.m.-

<sup>&</sup>lt;sup>8</sup> Poverty data was sourced from the 5-year American Community Survey (ACS) Estimates (2014-2018). More information about the American Community Survey can be found at <a href="https://www.census.gov/programs-surveys/acs/about.html">https://www.census.gov/programs-surveys/acs/about.html</a>.



9:00 p.m. EST and Saturday and Sunday from noon to 6:00 p.m. EST. For outbound calls, up to five attempts were made to each record, and a message was left on the first encounter of a voicemail, informing the respondent about the purpose of the call and giving them the information needed to complete the survey online or to call back into the call center.

A total of 844 individuals participated in the Early Launch survey. Of these, 646 completions were via telephone, of which 146 were considered as "partially complete." Additionally, 198 completions were via web survey, of which two were considered "partially complete." A partial completion is defined as a respondent who has been reached and who responded to at least the first substantive question of the survey but did not reach the demographics section of the survey. The AAPOR4 response rate for the study is 5.2%.

#### WAVE 2 SURVEY: DATA COLLECTION

The sample used in the Early Launch survey data collection was also used in Wave 2. Addresses that did not have a valid telephone phone and had a returned letter in the Early Launch data collection were excluded from data collection for the second survey, resulting in 1,036 addresses that did not receive a Wave 2 invitation to participate in the survey. Addresses that had a bad number disposition in the Early Launch survey data collection were mailed an invitation along with the addresses without a matched phone number.

Data collection for Wave 2 of the study commenced on March 6, 2021, with the start of outbound calling. The invitation letters were mailed out over three waves between March 8 and March 22, and the project web site was available for completing the survey until May 2. Outbound calls were made Monday-Friday 10 a.m.-9:00 p.m. EST and Saturday and Sunday from noon-6:00 p.m. EST. For outbound calls, up to five attempts were made to each phone number, and a message was left on the first encounter of a voicemail. This message informed the respondent about the purpose of the call and gave them the information needed to complete the survey online or to call back into the call center.

A total of 356 individuals participated in the survey, of which 80 responses came from households that participated in the Early Launch survey.

The AAPOR Response Rate 4 for this survey is 2.0%. The decline in response rate can be attributed to several factors. First, there was a significant time period between the first and second survey, and it was more difficult to contact some households during the Wave 2 data collection compared to the Early Launch process. This is seen by the increase in households with unknown eligibility and the decline in responses from households going online to complete the survey (Table 36). Second, in the time between the Early Launch and Wave 2 surveys, the decision had been made to discontinue the program, likely

<sup>&</sup>lt;sup>9</sup> APPOR4 refers to the American Association for Public Opinion Research, and the response rate was estimated using their calculator, version 4.0, available at <a href="https://www.aapor.org/AAPOR\_Main/media/MainSiteFiles/Response-Rate-Calculator-4-0-Clean-18-May-2016.xlsx">https://www.aapor.org/AAPOR\_Main/media/MainSiteFiles/Response-Rate-Calculator-4-0-Clean-18-May-2016.xlsx</a>.



making residents less inclined to participate in a survey about a program that was already discontinued. Finally, response rates for all surveys have been steadily decreasing over time, but the decrease at the start of COVID-19 was noticeably larger even among major federal agencies such as Census Bureau and U.S. Bureau of Labor Statistics.

**Table 36: Sample Disposition - Detail** 

Dispositions	Total
Completed Interview	356
Complete	305
Partial complete	51
Eligible, Contacted Respondent - Interview Not Completed	7,164
Refusal	3,483
Callback	72
Answering machine	3,433
Language barrier	176
Unknown eligibility	23,399
Always busy	493
No answer	9,703
Letter mailed to address but no response or returned mail	11,907
Returned mail	1,296
Not Eligible	2,914
Not a Baltimore City resident	131
Fax/data line	841
Non-working/disconnected	1,727
Business, government office, other organization	208
No eligible respondent	7
Total	30,936



## **APPENDIX B: SAMPLE DEMOGRAPHICS**

This appendix compares the demographics of the Wave 2 survey respondents to those of the Early Launch survey respondents and to the demographics of Baltimore City adult residents.

Table 37 shows the demographics of respondents to the two surveys. Of those who reported their demographic information, the biggest difference concerned the education level of the respondents. For the Early Launch survey, 43.2% had a Bachelor's degree or higher, and the remaining respondents were divided almost evenly between those who had up to a high school diploma (28.8%) and those with some college, an Associate's degree, or vocational training (28.0%). For the Wave 2 survey, a much smaller share of respondents had a Bachelor's degree or higher (18.0%), although the remainder was again approximately evenly divided between those who had up to a high school diploma (41.9%) and those with some college, an Associate's degree, or vocational training (40.2%).

On the remaining demographic indicators, the general characteristics of the two respondent groups were the same: respondents tended to be middle-aged, female, Black, not Latinx, employed at least part-time, and living in a high crime neighborhood.

In addition to analyzing the responses for the subcomponents of each scale, two additional analyses were conducted to understand the relationships between each scale and respondents' race and neighborhood crime level. The responses to the survey scales were examined across categorical levels within race and neighborhood crime, as these factors likely have important implications in the context of this policing program.

First, in the criminological literature race has been consistently found to be associated with perceptions of crime and criminality as well as attitudes towards police and policing. Specifically, research has often found that Black residents are more likely than their White neighbors to report negative experiences with and/or dissatisfaction with police (e.g., Jefferson & Walker, 1993; Johnson et al., 2017; Taylor et al., 2001; Weitzer & Tuch, 1999).

The neighborhood context in Baltimore plays an additional role, and potentially interacts with race. Baltimore is a highly segregated city, with a legacy of disinvestment in neighborhoods and communities with a majority of Black residents. In many cities, Black residents are often overrepresented in impoverished, disorganized, and higher-crime neighborhoods, which is associated with an increased likelihood of policing (Anderson, 1999; Fagan & Davies, 2000; Brunson & Miller, 2006). This holds true in Baltimore, where Black residents in higher crime neighborhoods have been subject to differential policing patterns and practices, as outlined by the DOJ's Consent Decree for the BPD. Thus, residents in these higher crime neighborhoods may have different perceptions on topics of neighborhood conditions, crime and police than those in lower crime neighborhoods.



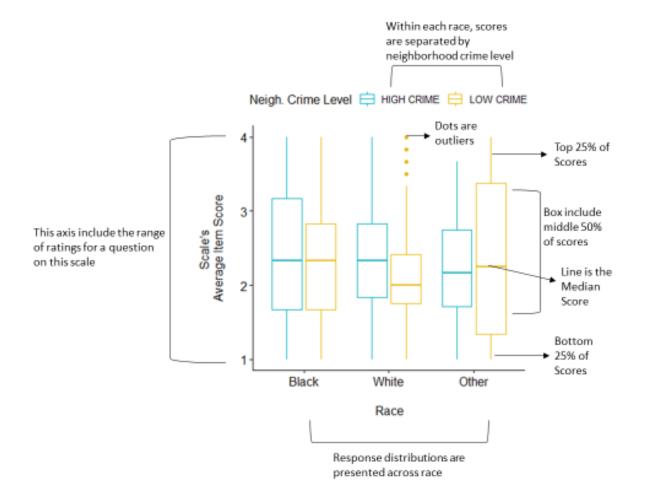
For the purpose of the analyses, race was coded in two categories: Black and White.<sup>10</sup> Neighborhood crime level was coded in two categories: High and Low crime neighborhoods. High crime/high poverty census block groups were coded in these analyses as high crime neighborhoods, while the other block groups in the city were coded as low crime neighborhoods.

The distributions of scores within race and neighborhood crime level categories are shown in a boxplot. The boxplot offers several advantages to data visualization, including presenting the key points of the data distribution and showing overall patterns of response for a group of respondents based on independent variables, in this case race and neighborhood crime level. Figure 17 presents an example of a boxplot with labels to assist with interpretation. Within each group, the box on the graph contains the scores for 50% of the respondents the category, with the line inside of the box identifying the median score. Thus, 25% of scores are located above the box and 25% are located below the box, with respondents identified as dots being "outliers" compared to the other category counterparts. When boxes are shorter, this means that scores are generally more consistent across participants in that category. When boxes are longer, this means greater variability in how participants responded to questions on the scale.

<sup>&</sup>lt;sup>10</sup> A third race group, "Other," was included in the Early Launch survey analysis but could not be included here due to the sample size.



Figure 17: Sample Box Plot



Second, a two-way ANOVA (Analysis of Variance) was computed for each scale to compare statistical differences within each factor (i.e., race and neighborhood crime level) on the outcome of interest (i.e., the scale). The two-way ANOVA also examines whether an interaction exists for the two factors on the outcome of interest.

**Table 37: Demographics of Survey Participants** 

Variables	Early Launch Survey			Wave 2 Survey		
	N	Percent	Valid percent	N	Percent	Valid percent
Age Group						
18-24 years old	15	1.8%	2.2%	11	3.1%	3.7%
25-34 years old	90	10.7%	13.0%	31	8.7%	10.4%
35-44 years old	123	14.6%	17.7%	49	13.8%	16.5%
45-54 years old	129	15.3%	18.6%	48	13.5%	16.2%
55-64 years old	145	17.2%	20.9%	67	18.8%	22.6%
65-74 years old	120	14.2%	17.3%	59	16.6%	19.9%
75 years or older	72	8.5%	10.4%	32	9.0%	10.8%
Missing/refused	150	17.8%	NA	59	16.6%	NA
Gender						
Male	262	31.0%	37.8%	125	35.1%	41.7%
Female	426	50.5%	61.5%	174	48.9%	58.0%
Nonbinary	5	0.6%	0.7%	1	0.3%	0.3%
Missing/refused	151	17.9%	NA	56	15.7%	NA
Race						
White	185	21.9%	27.1%	80	22.5%	28.2%
Black	448	53.1%	65.6%	195	54.8%	68.7%
Other	50	5.9%	7.3%	9	2.5%	3.2%
Missing/refused	161	19.1%	NA	72	20.2%	NA
Ethnicity						
Latinx	24	2.8%	3.5%	6	1.7%	2.0%
Not Latinx	665	78.8%	96.5%	288	80.9%	98.0%
Missing/refused	155	18.4%	NA	62	17.4%	NA
Education						
Up to a High School Degree	199	23.6%	28.8%	149	41.9%	41.9%
Some college, Associate's, or	194	23.0%	28.0%	143	40.2%	40.2%
vocational training						
Bachelor's or higher	299	35.4%	43.2%	64	18.0%	18.0%
Missing/refused	152	18.0%	NA	0	0.0%	NA
Employment Status						
Yes (at least part time)	364	43.1%	52.8%	154	43.3%	53.1%
Not employed	88	10.4%	12.8%	28	7.9%	9.7%
Retired/disabled, not able to work	237	28.1%	34.4%	108	30.3%	37.2%
Missing/refused	155	18.4%	NA	66	18.5%	NA
Crime Level						
Low crime neighborhood	252	29.9%	29.9%	115	32.3%	32.3%
High crime neighborhood	592	70.1%	70.1%	241	67.7%	67.7%

The demographics for Baltimore City residents as a whole are presented in Table 38. These were already discussed in the body of the report; as noted there, the Wave 2 survey participants generally had the same characteristics as the city's adult population with the exception of the age distribution. The city's adult population is on average younger than the survey respondents were.



**Table 38: Demographics of Baltimore Adult Population** 

Variables	N	Percent
Age Group		
18-24 years old	61,903	12.7%
25-34 years old	115,805	23.8%
35-44 years old	74,984	15.4%
45-54 years old	75,779	15.6%
55-64 years old	77,164	15.9%
65-74 years old	47,392	9.7%
75 years or older	33,454	6.9%
Gender		
Male	223,817	46.0%
Female	262,664	54.0%
Race		
White	187,152	30.4%
Black	383,918	62.5%
Other	43,630	7.1%
Ethnicity		
Latinx	31,503	5.1%
Not Latinx	583,197	94.9%
Education		
Up to a High School Degree	218,426	44.9%
Some college, Associate's, or vocational training	127,336	26.2%
Bachelor's or higher	140,719	28.9%
Employment Status		
Yes (at least part time)	279,034	55.9%
Not employed	219,931	44.1%

Source: U.S. Census Bureau, American Community Survey 5-Year Estimates for 2014-2018.



# **APPENDIX C: SURVEY TOPICS AND ANALYSIS**

The text in this appendix comes directly from the Early Launch report. It is provided here for readers' reference.

The primary goal of this study was to explore the perception of the AIR program by Baltimore residents. The survey instrument was divided into four major sections measuring: (I) Perceptions of Neighborhood Conditions, Crime, and Personal Safety, (II) Perceptions of the AIR Program, (III) Perceptions of the Police, and (IV) Willingness to Cooperate with Police. Inclusion of these sections was based on the idea that the community relationship with and perception of police often impact the use of technology in crime prevention strategies. In Sections I, III, and IV, survey measures were adopted based on tested and valid measurement items from existing literature, although they may have been modified to fit the needs of this survey (e.g., removing or adding items, changing response scales). Items in Section II: Perceptions of the AIR Program were structured based on existing surveys on other technologies (e.g., surveillance cameras; police drones), with the inclusion of new items written to fit the needs of this study. Additional information on the sources for specific survey questions is available upon request. The full survey instrument is available in Appendix C.

To evaluate the survey results for each section, a series of survey scales were developed. These scales included the responses to between three and six survey questions (with each question being included in no more than one scale). Table 39 shows these scales along with a description of the number of questions included in each scale and the range of responses for each item. In each of these scales, items were totaled and then averaged in order to obtain an average score per item for each scale. This average item score represents the average rating of a respondent for questions on that scale. For each scale, if a participant had one value that was missing (either because it was skipped or they refused to answer that item), their score could not be summed and averaged, and thus resulted in a missing case for the scale. The questions included in each scale, descriptive statistics for the responses and the results, and contextual information for each scale are presented in the subsequent sections of this report.



**Table 39: Summary of Survey Scales** 

Scale	Description
Perceptions of Neighborhood Conditions, Crin	ne, and Personal Safety
Social cohesion & interaction	5-question scale, with responses ranging from
	1 = Strongly Disagree to 5 = Strongly Agree
Perceptions of neighborhood safety	5-question scale, with responses ranging from
	1 = Strongly Disagree to 5 = Strongly Agree.
Fear of being a victim	6-question scale, with responses ranging from
	1 = Not Afraid at all to 4 = Very Afraid
Perceptions of AIR Program	
Knowledge of AIR program	Response of: Yes, No, or I am not sure
Support of AIR program	Response of: Yes, No, or I am not sure
Support of AIR program for investigating	4-question scale for four crime types: Carjacking, Armed Robberies,
crime	Non-fatal Shootings, and Murders/Homicides Responses range from
	1 = Strongly Against to 5 = Strongly Support
Attitudes about effectiveness of AIR program	5-question scale, with responses ranging from
	1 = Strongly Disagree to 5 = Strongly Agree
Beliefs about privacy and AIR program	4-question scale, with responses ranging from
	1 = Strongly Disagree to 5 = Strongly Agree
Perceptions of the Police	
Police legitimacy	6-question scale, with responses ranging from
	1 = Strongly Disagree to 5 = Strongly Agree.
Procedural justice	5-question scale, with responses ranging from
	1 = Strongly Disagree to 5 = Strongly Agree
Perceptions of Police bias	3-question scale, with responses ranging from
	1 = Strongly Disagree to 5 = Strongly Agree
Willingness to Cooperate with Police	
Willingness to partner with Police	3-question scale, with responses ranging from
	1 = Very Unlikely to 4 = Very Likely
Likelihood of contacting Police	4-question scale, with responses ranging from
	1 = Very Unlikely to 4 = Very Likely



# **APPENDIX D: FULL SURVEY INSTRUMENT - WAVE 2 SURVEY**

Note: The Wave 2 survey derived from the Early Launch survey and mostly contained the same questions. The primary differences were that: 1) the Wave 2 survey asked if respondents kept up with news concerning the surveillance planes whereas the Early Launch survey asked if they were aware of the program, and 2) the Early Launch survey included questions asking if respondents had heard noise from the surveillance planes. The full text of the Early Launch survey is available in the report of findings for that survey.

- S1. Before we start, can you verify that you are over 18 years of age?
  - 1. Yes
  - 2. No
- S2. Are you a Baltimore City Resident?
  - 1. Yes
  - 2. No
- S3. How long have you lived in Baltimore City?
  - 1. Less than 1 year
  - 2. 1-5 years
  - 3. 5+ Years
- S4. Do you recall receiving a letter about a survey on the Aerial Investigation Research Pilot Program?
  - 1. Yes
  - 2. No
  - 3. Don't Know
- S5. We conducted this survey last summer. Do you remember if you or someone in your household participated in this survey?
  - 1. Yes, I completed the survey
  - 2. Someone else in my household completed it
  - 3. No, I did not complete it nor did anyone in my household
  - 4. I don't recall
- S5. What is the nearest intersection to where you live or name your neighborhood?
  - 1. Enter Intersection
  - 2. Enter Neighborhood
  - 3. Refused



S6. What is the zip coo	de of the place where you live?
	(ENTER ZIP CODE)
88888 Don't k	now
99999 Refused	t

I. Perceptions of neighborhood conditions, crime, and personal safety

# Q1.1 – Social cohesion and neighbor interaction.

First, I would like to ask for your opinions about your neighborhood. Please tell me how much you agree or disagree with the following statements about the social atmosphere in your neighborhood.

- a) People around here are willing to help their neighbors. Would you say that you [INTERVIEWER READ RESPONSE OPTIONS FOR THE FIRST STATEMENT AND AS NECESSARY FOR REMAINING STATEMENTS]
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED
- b) People in this neighborhood can be trusted
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED
- c) People in this neighborhood generally get along with each other
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED



- d) People in this neighborhood share the same values
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED
- e) People in this neighborhood visit each other's homes or talk in the streets
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED

### Q1.2 - Perceptions of neighborhood safety.

Would you say that you are [INTERVIEWER READ RESPONSE OPTIONS FOR THE FIRST STATEMENT AND AS NECESSARY FOR REMAINING STATEMENTS]

- a) My neighborhood is safe
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED
- b) I avoid certain streets or buildings in my neighborhood
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED



- c) I feel comfortable walking alone in my neighborhood 1. Strongly Disagree 2. Disagree 3. Neutral 4. Agree 5. Strongly Agree 6. DON'T KNOW

  - 7. REFUSED
- d) I carry a weapon to feel safe in my neighborhood
  - Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED
- e) People sell or use drugs on the street in my neighborhood
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED
- Q1.3: In the past 6 months, would you say the level of crime in your neighborhood has:
  - a) Increased
  - b) Stayed about the same
  - c) Decreased
  - d) Don't Know
  - e) REFUSED
- Q1.4: What, if anything, do you think could be done to reduce crime in your neighborhood:
  - a) More police officers are needed
  - b) The police need more resources
  - c) More respect and trust is needed between the police and community members
  - d) My community needs more attention from social services
  - e) My community needs more resources
  - f) The city has to address the physical disorder in my neighborhood, such as graffiti and broken windows
  - g) Other:



# Q1.5 - Fear of being a victim.

For these next questions, I would like to ask about your fear of being a victim to crimes in your neighborhood. Please tell me how afraid you are of being a victim to the following crimes in your neighborhood.

- a) Having your property/car damaged by vandals Would you say that you are [INTERVIEWER READ RESPONSE OPTIONS FOR THE FIRST STATEMENT AND AS NECESSARY FOR REMAINING STATEMENTS]
  - 1. Not Afraid at all
  - 2. Not Really Afraid
  - 3. Somewhat Afraid
  - 4. Very Afraid
  - 5. DON'T KNOW
  - 6. REFUSED
- b) Having your car stolen or being car-jacked
  - 1. Not Afraid at all
  - 2. Not Really Afraid
  - 3. Somewhat Afraid
  - 4. Very Afraid
  - 5. DON'T KNOW
  - 6. REFUSED
- c) Having someone break into your home
  - 1. Not Afraid at all
  - 2. Not Really Afraid
  - 3. Somewhat Afraid
  - 4. Very Afraid
  - 5. DON'T KNOW
  - 6. REFUSED
- d) Being robbed or mugged by a stranger
  - 1. Not Afraid at all
  - 2. Not Really Afraid
  - 3. Somewhat Afraid
  - 4. Very Afraid
  - 5. DON'T KNOW
  - 6. REFUSED



### e) Being shot or shot at

- 1. Not Afraid at all
- 2. Not Really Afraid
- 3. Somewhat Afraid
- 4. Very Afraid
- 5. DON'T KNOW
- 6. REFUSED

# f) Being murdered

- 1. Not Afraid at all
- 2. Not Really Afraid
- 3. Somewhat Afraid
- 4. Very Afraid
- 5. DON'T KNOW
- 6. REFUSED

### II. Perceptions of the AIR Program

In the next section, I would like to ask about your knowledge of the AIR Program and about your support of its implementation in Baltimore City.

### Q2.1 Knowledge of AIR

Before today, had you heard about the AIR Program and the use surveillance planes?

- 1. Yes
- 2. No
- 3. I am not sure
- 4. REFUSED

Q2.1a: Did you keep up with the news about the surveillance planes while they were flying in Baltimore city?

- 1. Yes
- 2. No
- 3. REFUSED

# If Q2.1a is Yes, proceed to Q2.1b



Q2.1b: Where did you get news about the surveillance plane? SELECT ALL ANSWERS THAT APPLY

.

- 1. Newspaper
- 2. Local tv or radio
- 3. Baltimore Police department announcement
- 4. Community organizations
- 5. Religious organization, such as a church
- 6. Civil Rights Organizations, like the ACLU
- 7. People in my community
- 8. Friends or family
- 9. Other: Please Specify \_\_\_\_\_

Q2.2: Based upon your knowledge of the AIR program, do you think the following statements are true or false?

- 1. Information collected by surveillance planes was accessed only after a crime was committed
  - 1. True
  - 2. False
  - 3. DON'T KNOW
  - 4. REFUSED
- 2. The program was focused on helping to solve only violent crimes
  - 1. True
  - 2. False
  - 3. DON'T KNOW
  - 4. REFUSED
- 3. The program was a pilot test that lasted a limited time of 180 days
  - 1. True
  - 2. False
  - 3. DON'T KNOW
  - 4. REFUSED
- 4. The results of the program are being evaluated by independent researchers
  - 1. True
  - 2. False
  - 3. DON'T KNOW
  - 4. REFUSED



- 5. A person's individual identity could not be identified in the footage collected by the surveillance planes unless it was matched with images from other sources.
  - 1. True
  - 2. False
  - 3. DON'T KNOW
  - 4. REFUSED
- 6. People and/or vehicles could not be tracked in real time
  - 1. True
  - 2. False
  - DON'T KNOW
  - 4. REFUSED

# Q2.3 – Support for use of surveillance planes.

- a) Would you support the Baltimore Police Department's use of surveillance planes flying over your neighborhood?
  - 1. Yes
  - 2. No
  - 3. I do not know
  - 4. REFUSED

### If Q2.3a = 1, ask Q2.3b. If Q2.3a = 2 or 3, ask Q2.3c.

- b) Why would you support the use of surveillance planes? SELECT ALL ANSWERS THAT APPLY
  - 1. I think it will help solve crimes
  - 2. I think it will prevent people from engaging in criminal activity
  - 3. I think it will reduce crime
  - 4. I think it is cost effective
  - 5. I am not worried about violations of people's privacy
  - 6. I think the pilot program was successful
  - 7. Other: Please Specify \_\_\_\_\_
  - 8. DON'T KNOW
  - 9. REFUSED



- c) Why would you not support or are unsure about supporting the use of surveillance planes? SELECT ALL ANSWERS THAT APPLY
  - 1. I do not think it will help solve crimes
  - 2. I do not think it will prevent people from engaging in criminal activity
  - 3. I think it will violate people's privacy
  - 4. I do not think the police department provided enough information to the community
  - 5. I do not know enough about the program overall to support it
  - 6. I do not think the pilot program was successful
  - 7. I do not think it is cost effective
  - 8. I do not think it will reduce crime
  - 9. The noise from the planes is too loud or annoying
  - 10. Other: Please Specify \_\_\_\_\_
  - 11. DON'T KNOW
  - 12. REFUSED
- Q2.4: Support for plane surveillance: Would you be more likely to support the use of surveillance planes if (MARK ALL THAT APPLY):
  - a. City and police officials explained the program more thoroughly
  - b. Concerns about privacy were addressed
  - c. The Baltimore police partnered with a reputable civil rights organization, like the ACLU, to ensure citizen rights were protected
  - d. There are clearly state policies regarding the use of the surveillance plane
  - e. Findings from the program are regularly shared with the community
  - f. Other: Please Specify \_\_\_\_\_
  - g. DON'T KNOW
  - h. REFUSED
- Q2.5: Support of plane surveillance for investigating crime. Would you support the use of surveillance planes for investigating any of the following public safety concerns or crimes? Scale: 1 = Strongly Against; 2 = Against; 3 = Neutral; 4 = Support; 5 = Strongly Support; 6 = Don't Know; 7 = Refused
  - a. Traffic violations or accidents
  - b. Political protests or instances of civil unrest
  - c. Thefts or home burglaries
  - d. Car-jackings
  - e. Non-fatal shootings
  - f. Armed robberies
  - g. Murders and/or homicides



## Q2.6 – Attitudes about the effectiveness of plane surveillance

Now I would like to ask you about your beliefs about the potential effectiveness of the police using surveillance planes.

- a) Surveillance planes gathering evidence in open public places, like parks and streets, is useful for police Would you say that you [INTERVIEWER READ RESPONSE OPTIONS FOR THE FIRST STATEMENT AND AS NECESSARY FOR REMAINING STATEMENTS]
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Unsure either way
  - 4. Agree
  - 5. Strongly Agree
  - 6. REFUSED
- Surveillance planes gathering evidence in open private places, like porches and backyards, is useful for police
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Unsure either way
  - 4. Agree
  - 5. Strongly Agree
  - 6. REFUSED
- c) Surveillance planes gathering evidence for serious crimes, like shootings and homicides, will help the police solve these crime
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Unsure either way
  - 4. Agree
  - 5. Strongly Agree
  - 6. REFUSED
- d) Surveillance planes will prevent people from engaging in criminal activity
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Unsure either way
  - 4. Agree
  - 5. Strongly Agree
  - 6. REFUSED



- e) Surveillance planes will encourage people to report criminal activity to the police
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Unsure either way
  - 4. Agree
  - 5. Strongly Agree
  - 6. REFUSED

# Q2.7 – Plane surveillance privacy scale.

Next, I would like to ask about your beliefs about privacy and the surveillance planes. Please tell me how much you agree or disagree with the following statements?

- a) Surveillance planes violate my privacy
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Unsure either way
  - 4. Agree
  - 5. Strongly Agree
  - 6. REFUSED
- b) The surveillance planes gather too much private information about me
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Unsure either way
  - 4. Agree
  - 5. Strongly Agree
  - 6. REFUSED
- c) The information collected from the surveillance planes is worth my loss of privacy
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Unsure either way
  - 4. Agree
  - 5. Strongly Agree
  - 6. REFUSED



- d) Surveillance planes are excessive monitoring
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Unsure either way
  - 4. Agree
  - 5. Strongly Agree
  - 6. REFUSED

# III. Perceptions of the police

# Q3.1 - Police Legitimacy.

Now, I would like to ask you about your perceptions of the police in your community. Please tell me how much do you agree or disagree with the following statements about the police in your community?

- a) People in my community are well protected by the police.
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED
- b) The police can be trusted to make decisions that are right for my community.
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED
- c) People should always listen to police officers even if they believe that a police officer is wrong.
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED



- d) The police are a part of my neighborhood
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 6. DON'T KNOW
  - 7. REFUSED
- e) I feel comfortable around the police
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED
- f) I generally support how the police act in my community
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED

### Q3.2 - Procedural Justice.

How much do you agree or disagree with the following statements about the police in your community treat people?

- a) Police in my community treat people with dignity and respect.
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED



- b) Police in my community treat people fairly.
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED
- c) Police in my community take time to listen to people.
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED
- d) Police in my community explain their decisions to the people they deal with.
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED
- e) Police in my community make decisions based on facts and the law, and not their own personal opinions.
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED



### Q3.3 - Perceptions of Police Bias.

How much do you agree or disagree with the following statements about how the police in your community treat people?

- a) Police officers treat people differently based on their race/ethnicity.
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED
- b) Police officers treat people differently based on how much they earn
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED
- c) Police officers treat people differently based on their age.
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED

#### Q3.4 Police Power.

Rate your agreement with the following statements (5 point scale).

- a) If we give the police enough resources, they will be able to effectively control crime
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED



- b) The police have too much power in my community (REVERSE CODED)
  - 1. Strongly Disagree
  - 2. Disagree
  - 3. Neutral
  - 4. Agree
  - 5. Strongly Agree
  - 6. DON'T KNOW
  - 7. REFUSED

# IV. Willingness to cooperate with the police

### Q4.1 - Willingness to Partner with the Police

Now we would like to ask you about your likelihood of partnering with or contacting the police in your community. How likely are you to work together with the police by doing the following?

- a) Patrol the streets as a part of an organized community group. Would you say you would be [INTERVIEWER READ RESPONSE OPTIONS FOR THE FIRST STATEMENT AND AS NECESSARY FOR REMAINING STATEMENTS]
  - 1. Very Unlikely
  - 2. Unlikely
  - 3. Likely
  - 4. Very Likely
  - 5. DON'T KNOW
  - 6. REFUSED
- b) Help and assist the police to solve a crime or find a suspect
  - 1. Very Unlikely
  - 2. Unlikely
  - 3. Likely
  - 4. Very Likely
  - 5. DON'T KNOW
  - 6. REFUSED
- c) Attend a community meeting with the police to discuss crime in your neighborhood
  - 1. Very Unlikely
  - 2. Unlikely
  - 3. Likely
  - 4. Very Likely
  - 5. DON'T KNOW
  - 6. REFUSED



### Q4.2 - Contacting Police.

How likely would you be to call the police for the following?

- a) To report any crime where you were the victim
  - 1. Very Unlikely
  - 2. Unlikely
  - 3. Likely
  - 4. Very Likely
  - 5. DON'T KNOW
  - 6. REFUSED
- b) To report a minor (misdemeanor) crime, such vandalism
  - 1. Very Unlikely
  - 2. Unlikely
  - 3. Likely
  - 4. Very Likely
  - 5. DON'T KNOW
  - 6. REFUSED
- c) To report a serious (felony) crime, such as an assault
  - 1. Very Unlikely
  - 2. Unlikely
  - 3. Likely
  - 4. Very Likely
  - 5. DON'T KNOW
  - 6. REFUSED
- d) To report suspicious activity
  - 1. Very Unlikely
  - 2. Unlikely
  - 3. Likely
  - 4. Very Likely
  - 5. DON'T KNOW
  - 6. REFUSED



# V. Demographic Characteristics

Thank you very much for your openness in responding to these questions so far, we really appreciate your participant. I have one final section of questions I would like to ask about you in order to get some demographic information.

- D1. Age: Which category below includes your age?
  - 1. 18-24 years old
  - 2. 25-34 years old
  - 3. 35-44 years old
  - 4. 45-54 years old
  - 5. 55-64 years old
  - 6. 65-74 years old
  - 7. 75 years or older
  - 8. Refused
- D2. What is your gender?
  - 1. Female
  - 2. Male
  - 3. Other (specify)
  - 4. Prefer not to answer/Refused
- D3. Are you: (Choose all that apply)
  - 1. White
  - 2. Black or African American
  - 3. Native American or American Indian
  - 4. Asian / Pacific Islander
  - 5. Other (specify)
  - 6. Refused
- D3A. Are you Hispanic or Latino?
  - 1. Yes
  - 2. No
  - 3. Refused



D4. Education: What is the highest degree or level of school you have completed? *If currently enrolled, highest degree received.* 

- 1. No schooling completed
- 2. Kindergarten to 8th grade
- 3. Some high school, no diploma
- 4. High school graduate, diploma or the equivalent (for example: GED)
- 5. Some college credit, no degree
- 6. Trade/technical/vocational training
- 7. Associate degree
- 8. Bachelor's degree
- 9. Master's degree
- 10. Professional degree
- 11. Doctorate degree
- 12. Refused

# D5. What is your marital status?

- 1. Single, never married
- 2. Married or domestic partnership
- 3. Widowed
- 4. Divorced
- 5. Separated
- 6. Refused

D6. Which of the following categories best describes your employment status?

- 1. Employed, working 1-39 hours per week
- 2. Employed, working 40 or more hours per week
- 3. Self-employed
- 4. Temporarily out of work as a result of the COVID-19/Coronavirus Epidemic
- 5. Out of work and looking for work
- 6. Out of work but not currently looking for work
- 7. A homemaker
- 8. A student
- 9. Military
- 10. Retired
- 11. Disabled, not able to work
- 12. Refused



D7. Do you identify with any of the following political parties?	
1.	Republican
2.	Democrat
3.	Independent
4.	Libertarian
5.	Other: Please Specify
6.	Refused
0.	Neruseu
D8. In the past twelve months, have you or a member of your family been a victim of a violent crime?	
1.	Yes
2.	No
3.	Refused
D9. What was the combined income from all of the members of your household in 2019?	
1.	\$0 – \$9,999
2.	\$10,000 - \$19,999
3.	\$20,000 – \$29,999
4.	\$30,000 - \$39,999
5.	\$40,000 – \$49,999
6.	
7.	
8.	
9.	\$80,000 - \$89,999
	. \$90,000 – \$99,999
11	. \$100,000 or more
	. Refused
D10. Do you own or rent the place you live?	
1.	Own or co-own the place you live
2.	Rent the place you live
3.	Live with someone else, but do not pay rent
4.	Refused
D11. How many adults 18 or older live in your household?	
1.	Number:
2.	Refused



Those are all of the questions that I have. Thank you for your time.