CITY OF PORTLAND
PHOTO ENFORCEMENT BIENNIAL REPORT
2019-2020

Sergeant John Holbrook
Portland Police Bureau
Traffic Division

7214 N. Philadelphia Ave.
Portland, OR 97203
503-823-2153
m.john.holbrook@portlandoregon.gov

Saving Lives with Safe Streets

Contractor Information:
Vincent K. Parke
Conduent
Northwest Regional Program Manager

Program Purpose

Although the Country has seen a decline in fatal crashes, during the biennium of 2018-2019, the City of Portland has experienced an uptick in the number of traffic related fatalities. One hundred twelve people died on Portland's roadways (54 in 2019 and 58 in 2020); 2020 had the highest fatality rate since 1996. Speed was a contributing factor in many of the recent fatal crashes. From January 2019 through December 2020 there were 2,156 injury and fatal related crashes in the City of Portland. Driving without due regard to safety and driver inattention were primary factors in many of these crashes. The correlation between speed and fatal and serious crashes is well established. It is an inescapable matter of physics that as speeds of vehicles involved in crashes increases, the severity of the impact increases accordingly. In efforts to reduce and eliminate serious and fatal crashes, the City of Portland utilizes photo enforcement as one of the tools to bring awareness, change behavior and save lives.

BACKGROUND – REPORT REQUIREMENTS

The Oregon Revised Statute 810.438 authorizing photo radar in cities was amended in the Legislative session of 2005. This amendment required cities using photo radar to conduct a process and outcome evaluation once each biennium.

A copy of the amended Statute is included below:

(3) A city that operates a photo radar system under this section shall, once each biennium, conduct a process and outcome evaluation for the purposes of subsection (4) of this section that includes:

(a) The effect of the use of the photo radar system on traffic safety;

(b)The degree of public acceptance of the use of photo radar system; and

(c) The process of administration of the use of the photo radar system.

(4) By March 1 of the year of each regular session of the Legislative Assembly:

(a) The Department of Transportation shall provide to the Legislative Assembly an executive summary of the process and outcome evaluations conducted under subsection (3) of this section; and

(b) Each city that operates a photo radar system under this section shall present to the Legislative Assembly the process and outcome evaluation conducted by the city under subsection (3) of this section.

[1995 c.579 1; 1997 c.280 1; 1999 c.1071 1; 2005 c.686 3]

PHOTO-RADAR

I. PHOTO RADAR AND ITS EFFECT ON TRAFFIC SAFETY

Background

Photo radar is a method of traffic speed enforcement that is used to detect speeding violations and record identifying information about the vehicle and driver automatically. Violation evidence is processed and reviewed in an office environment and violation notices are delivered to the registered owners of identified vehicles after the alleged violation occurs, rather than at the time of the offense.

The City of Portland received authority from the 1995 Legislature to conduct a two-year test of photo radar. After a successful test phase, the Legislature extended the use of photo radar. The

City of Portland will be entering its 26th year of photo radar operation and the program continues to be a cornerstone of the Portland Police Bureau's efforts to reduce speeding.

Deployments

The Portland City Council, through City Ordinance #172517, has directed the Police Bureau to deploy photo radar in school zones, highway work zones, residential streets, and other streets determined to have an unusually high number of crashes or speeding complaints.

The Traffic Division's emphasis on photo-enforcement has been:

- School zones
- Work zones
- Residential areas
- High crash corridors
- Areas with history of speed related crashes and complaints
- Citizen and police officer requests for photo-radar deployments

During 2019 the Traffic Division saw a reduction in staffing. Its officers continued to deploy the photo radar van with regularity. In March 2020, photo radar van operations were halted due to the COVID 19 pandemic. Radar van deployments returned, in a limited capacity, in April. By June 2020, photo radar van operations had fully resumed. The decrease in enforcement hours reflects the stoppage of enforcement due to the COVID 19 pandemic.

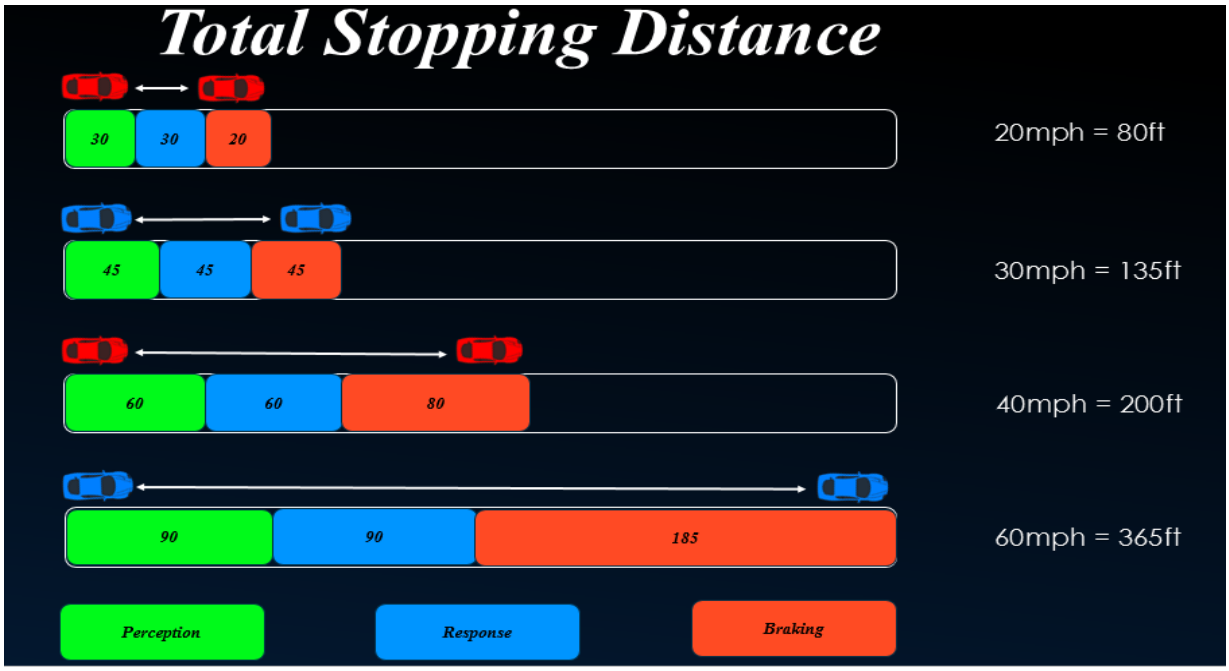
	2019	2020
Enforcement Hours	8,279	8,132
Violations Captured	39,126	38,677
Citations Issued	24,204	23,350

School Zones

The Portland Police Bureau remains dedicated to the safety of the numerous school zones throughout our city. Photo-radar has been used extensively for speed enforcement in school zones city-wide. Requests for photo-radar deployments in school zones have come from school administrators, school resource officers, neighbors living near schools, and parents of children attending the schools. We strive to fulfill every request for a school zone deployment that we receive.

Our deployment signage complies with state law in regards to school zones without flashing beacons. The school zone deployment signs, meeting the dimensions required under ORS, indicate 'SCHOOL IN SESSION' in addition to the standard admonishment that photo-radar is being deployed. These signs are placed 100-400 yards prior to any photo-radar deployment.

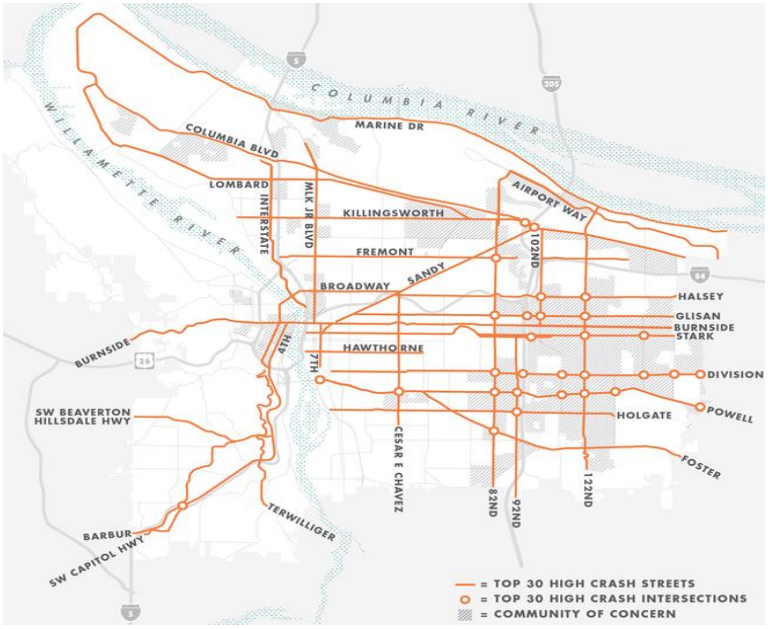
School zones present unique traffic dangers. It is common for children not to understand the hazards a roadway can present. They often lack the impulse control necessary to avoid those dangers. Likewise, it is common for drivers to underestimate the stopping distance required to bring a motor vehicle to an emergency stop. The chart below displays the significant correlation of how stopping distance increases as speeds increase. Under ideal conditions, utilizing a drag factor of .68(*f*), the stopping distance between a vehicle traveling at 20 mph and 30 mph is a difference of 55 feet. As children's judgment and perception of speed/distance do not properly develop until their teens, speeds in excess of the posted limit may be costly.



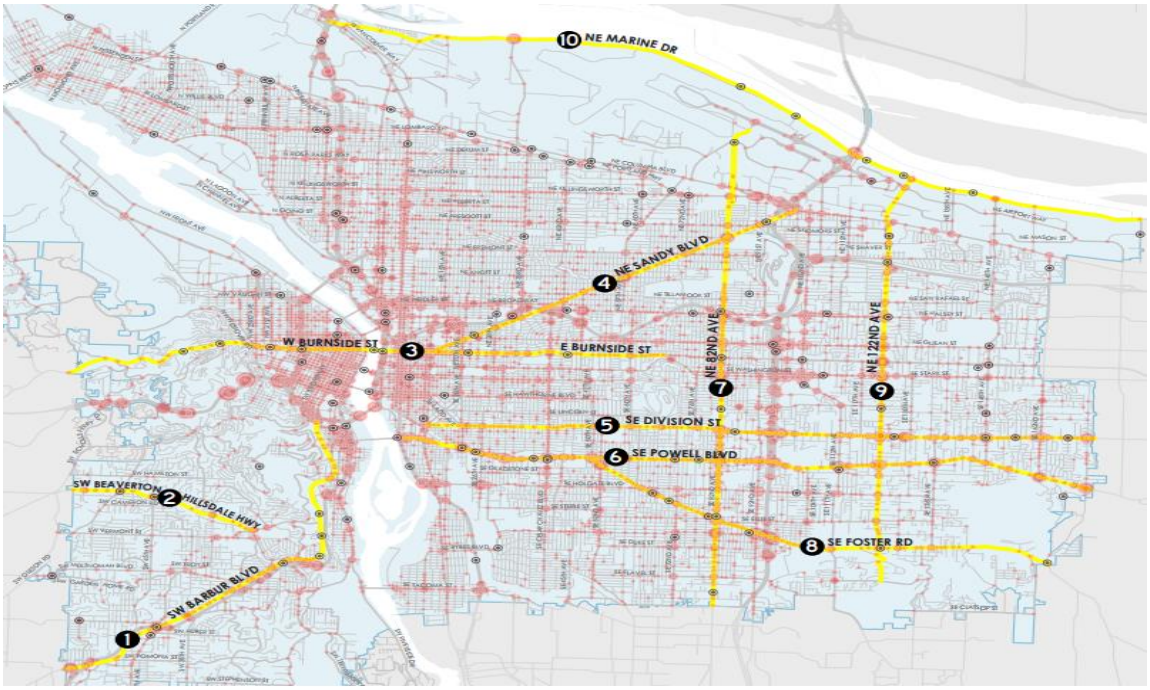
High Crash Corridors

The Portland Bureau of Transportation (PBOT) has found that the majority of serious crashes in the Portland area occur on 30 arterial roadways, identified as the High Crash Network. These roadways make up less than 8 percent of Portland's roadways. In the Portland Metro region, a commuter is 4.3 times more likely to be involved in a serious crash on an urban arterial roadway that runs through the city than on a freeway (I-84, I-5, I-205).

Ten of these thoroughfares have been identified as having 25% more crashes than similar roadways. These roadways have been labelled as the High Crash Corridors in the city and are taken into consideration when deploying photo-radar vans.



NE/SE 82nd Ave.
NE/SE 122nd Ave
SE Division St.
SE Powell Blvd.
SW Beaverton-Hillsdale Highway
SW Barbur Blvd.
SE Foster Road
N/NE Marine Drive
NE Sandy Blvd.
W/E Burnside St.



High Crash Corridor Totals by Month and Weekday

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Sunday	23	25	18	19	28	24	23	22	30	41	22	36
Monday	28	12	26	20	27	28	29	26	22	27	25	26
Tuesday	41	22	23	15	35	33	26	34	27	40	30	32
Wednesday	32	32	29	32	30	32	23	32	26	35	43	27
Thursday	28	33	38	26	32	33	27	36	31	33	32	25
Friday	26	26	31	36	34	46	40	29	39	27	35	26
Saturday	27	32	31	42	27	23	33	23	38	30	29	42

High Crash Corridor Events by Month

Corridor Name	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
NE/SE 82nd Ave	41	27	37	28	34	38	34	29	43	32	42	39
SE Powell Blvd	35	32	38	35	29	31	34	36	44	36	31	36
SE Division St	32	26	35	27	30	28	28	31	32	33	30	29
E/W Burnside St	32	34	20	16	29	31	28	22	22	36	33	32
NE/SE 122nd Ave	28	15	21	28	27	39	22	26	23	27	22	27
NE/SE Sandy Blvd	9	22	15	22	23	25	24	28	15	32	24	19
SE Foster Rd	10	11	15	18	18	8	17	13	19	9	14	14
SW Barbur Blvd	11	9	8	6	12	8	11	7	7	8	10	15
NE Marine Dr	3	5	6	8	10	9	3	9	6	14	8	2
SW Beaverton-Hillsdale	4	1	1	2	1	2		1	2	6	2	1

High Crash Corridor Events by Weekday

Corridor Name	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
E/W Burnside St	41	38	46	55	48	60	47
NE Marine Dr	22	5	8	19	11	12	6
NE/SE 82nd Ave	46	55	58	63	71	59	72
NE/SE 122nd Ave	42	40	46	45	40	54	38
NE/SE Sandy Blvd	32	33	34	42	39	41	37
SE Division St	44	29	64	49	54	66	55
SE Foster Rd	23	21	21	23	31	21	26
SE Powell Blvd	51	53	57	62	52	62	80
SW Barbur Blvd	7	19	18	13	26	16	13
SW Beaverton-Hillsdale	3	3	6	2	2	4	3

Reduction of crashes

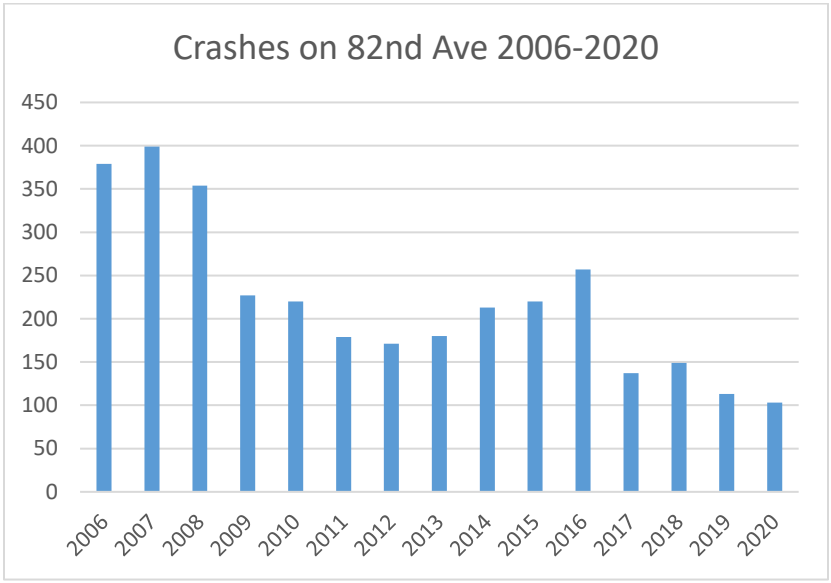
Studies have shown that photo-enforcement has been effective in reducing speeding within the boundaries of the City of Portland. The trend is clearly visible that with increasing exposure to photo radar, the percent of vehicles that were exceeding the posted speed limit has been decreasing. A possible interpretation of this trend is that photo radar vans are decreasing vehicle speeds; in turn, this could be assumed to be decreasing speed related crashes. As people have become more familiar with the photo radar vans and their deployments, they have learned to slow down. The Police Bureau attempts to identify trends in causation and behavior to determine which enforcement is needed for the traffic safety issue.

Reduction in High Crash Corridor Incidents

Since the Police Bureau has been utlizing data to strategically deploy enforcement vans, crashes have been reduced over the last decade within most high crash corridors. Refer to graphs below for examples.

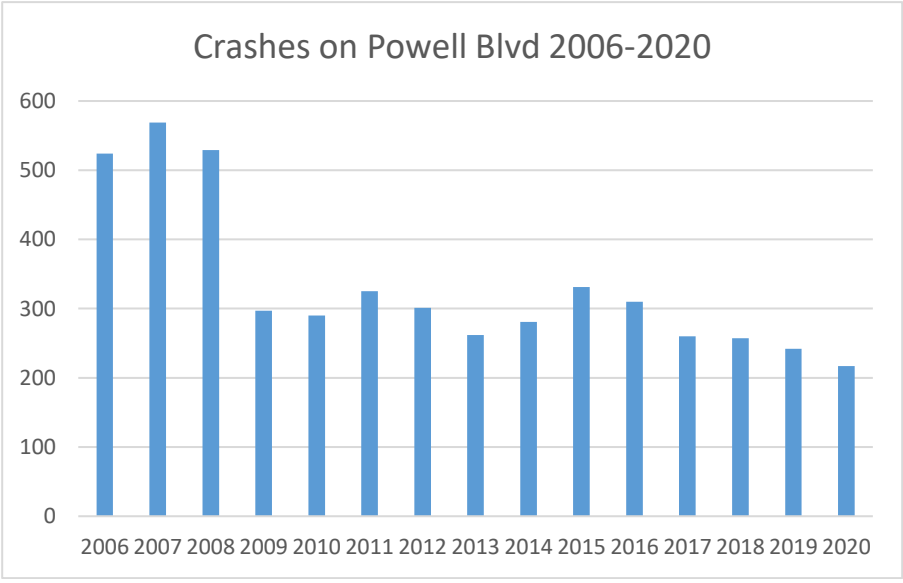
Crashes on 82nd Ave

2006	379
2007	399
2008	354
2009	227
2010	220
2011	179
2012	171
2013	180
2014	213
2015	220
2016	257
2017	137
2018	149
2019	113
2020	103



Powell Blvd Crashes

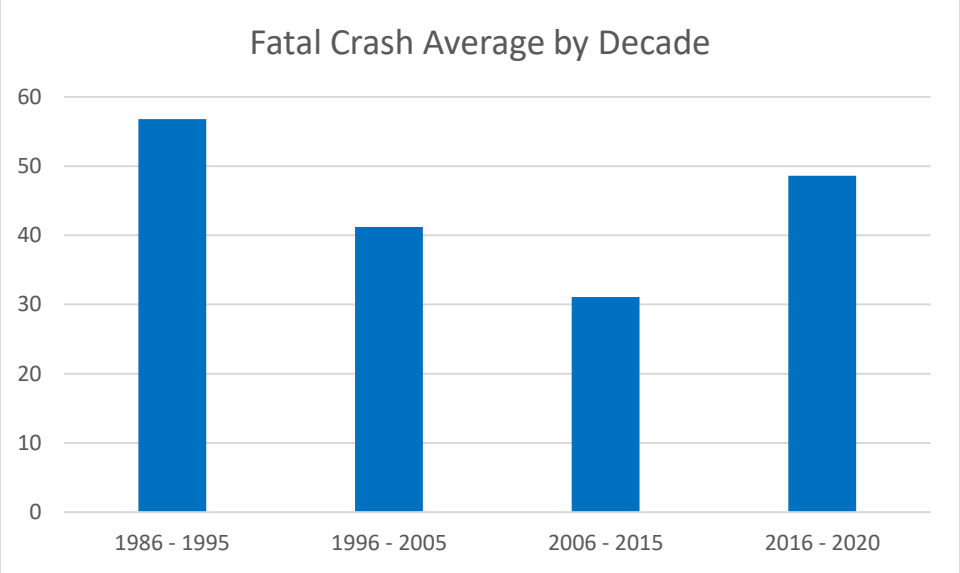
2006	524
2007	569
2008	529
2009	297
2010	290
2011	325
2012	301
2013	262
2014	281
2015	331
2016	310
2017	260
2018	257
2019	242
2020	217



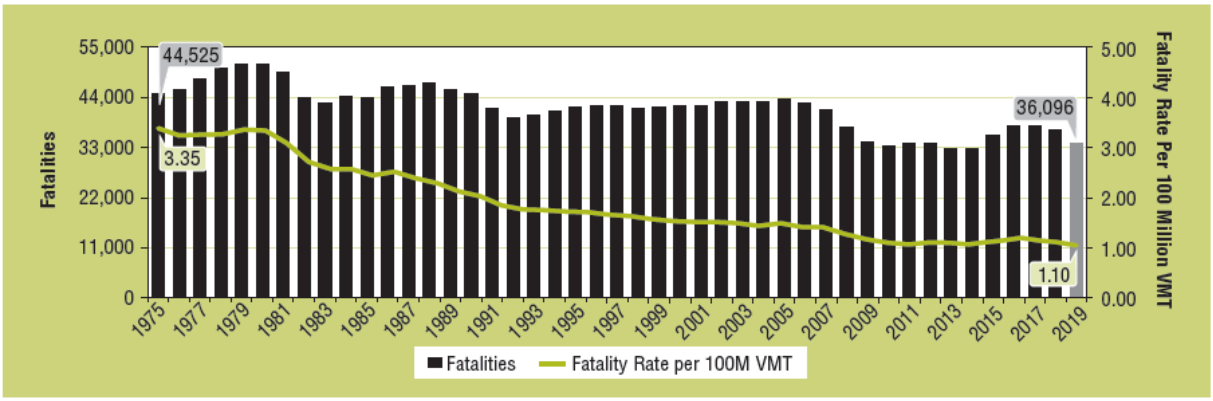
PBOT found that 57 percent of 2016's traffic fatalities occurred on High Crash Corridors.

The Portland Police Bureau's Strategic Services Division captured data for nearly 90,000 crashes within the City of Portland. Crash data and common threads are analyzed to determine which enforcement resource would be most advantageous to address traffic safety issues. In areas where speed or driver inattention have been factors, photo enforcement vans are commonly utilized.

Prior to the conception of photo radar in Portland, fatality rates were substantially higher than they are today. The decade before the program began (1986 – 1995) the annual fatality rate averaged 56.8 traffic related deaths per year. The decade after the photo enforcement program was introduced (1996 – 2005), fatality rates decreased to an annual average of 41.2 fatalities. The following decade of 2006 - 2015 continued this trend, showing a drop in traffic related fatalities to an annual average of 31.1 traffic related deaths. However, an alarming turn regarding traffic fatalities has occurred in the following 5-year period (2016-2020). The average rose to an average of 48.6 deaths per year. This is contrary to the national trend, which, since 2017, has been showing a decline in traffic related fatalities.



Fatalities and Fatality Rate per 100 Million VMT, 1975-2019



Sources: FARS 1975-2018 Final File, 2019 ARF; 1975-2018 VMT – FHWA's Annual Highway Statistics; 2019 VMT – FHWA's September 2020 TVT

Speed Racing in Portland

During the summers of 2019 and 2020, the Portland Police Bureau noticed a significant upsurge in dangerous speed racing along roadways in North and Northeast Portland. Large groups of people gathered along roadways and in parking lots of businesses to race and engage in dangerous speed related activities such as "cutting cookies" (spinning one's car in tight circles at high rates of speed while skidding the tires), "burn-outs" (setting the emergency brake while spinning their car's tires from a stop) and exhibiting the speed capabilities of their cars and motorcycles. These speed racing groups became brazen enough to shut down large stretches of roadways as well as Interstate Freeways in order to conduct their races. Several crashes, resulting in multiple injuries, property damage, and at least 5 deaths, occurred as a result of speed-racing events inside the City of Portland. Neighbors that lived and worked in areas around these events became concerned and fearful about safety issues and crimes that occurred during, and around, these gatherings.

In hopes of deterring such dangerous behavior and reducing the risk to the public, as well as to the racing participants, the Portland Police Bureau's North Precinct, along with the Traffic Division, conducted several speeding enforcement missions in the areas of these gatherings. The photo radar van was used as an integral part of these missions. In order to capture speed violations, the photo radar van was deployed in or nearby the areas that the speed racing was occurring. These missions took place over the course of the summer months and helped reduce the occurrences and severity of the events.

II. PHOTO RADAR PROCESS OF ADMINISTRATION

The basic steps involved in issuing a photo radar citation are:

1. Violation detection
2. Violation processing
3. Quality control checks
4. Citation review and approval by the police officer
5. Citation mailing

1. Violation detection occurs when a police officer operating a marked police vehicle visually observes a violation. The police officer also hears an audible signal indicating the violator speed. The officer maintains an observation log at each deployment and takes notes of each violation.

   At least three photographs are generated for each violation.
   These include the vehicle in the radar beam approaching the police vehicle, a close-up photo of the driver in the violation vehicle, and a close-up picture of the violation vehicle's license plate. The violation vehicle's speed is displayed on a reader board at the back of the photo radar vehicle.

   The police officer maintains a checklist for each deployment to document that they are following all the technical procedures for operating the photo radar equipment.

2. Violation processing:

Violation images are downloaded from the laptop computer aboard the photo-radar van each day by our vendor, Conduent. Those images are sent electronically to the vendor's processing facility.

If they can identify the license plate, the vendor sends a request to the National Law Enforcement Telecommunications System (NLETS) or the Oregon Department of Motor Vehicles (DMV) for the registered owner information. NLETS or DMV sends this information back to Conduent. The pertinent details of the violation (such as location, date, time, speed, etc.) are reviewed by the vendor along with the registered owner information.

3. The vendor discards violations where there is no gender match to the registered owner or owners. They also discard any violations where the driver is not identifiable due to factors such as glare, face blocked by a visor, etc.

4. Any violations that pass this first screening by Conduent are then sent to the issuing police officer as citations. The issuing police officer reviews the citations for accuracy and electronically signs them. The approved citations are sent back to Conduent for issuing.

5. Conduent then mails this citation, along with a photo from the violation, to the registered owner. This citation must be mailed to the registered owner within six (6) business days to remain in compliance with Oregon law. The registered owner has thirty (30) days to respond to this citation. They are afforded all the same rights as a defendant would have with any traffic violation. The citation is processed through the State of Oregon Court system. The presumption in Oregon is that the registered owner is the driver at the time of the violation.

   If the registered owner was not driving the vehicle when the violation occurred, they may file a Certificate of Innocence with the Circuit Court, at which time the citation will be dismissed. A Certificate of Innocence is included with each citation.

   The Police Bureau's photo radar program manager subsequently reviews these Certificates of Innocence for accuracy.

III. PUBLIC ACCEPTANCE OF PHOTO RADAR

Early Photo Enforcement Public Surveys

The City of Portland has been monitoring public opinion of photo radar over the years of deployment and enjoys a strong public acceptance of photo radar as a valuable tool against speeding. In September 1996, a public opinion poll was conducted that showed 74% of city

residents approved of photo radar use in neighborhoods. This same poll showed that 89% of city residents approved of photo radar use in school zones.

In 2003, a public opinion poll was conducted by Davis & Hibbitts, Inc. showed that 87% of city residents were concerned about speeding. Again in 2005, the public opinion firm of Davis, Hibbitts and Midghall, Inc. (DHM) conducted a telephone survey poll of Portland residents. Four hundred interviews were conducted and the purpose of the survey was to assess the impact of photo radar use in school zones. In this survey 68% of the respondents agreed with the use of photo radar in school zones. This survey also showed that 85% of the respondents would drive slower all of the time if they saw photo radar being used at least three times per week.

In 2010 the Portland Police Bureau's photo-enforcement program was selected for review as part of a study done for the National Cooperative Highway Research Program [NHRCP]. Our program was one of only five programs nationwide to be selected for review. Our program was selected because of its longevity, continued success, and continued public support. In that review, we stressed the importance of maintaining the public's trust and running a transparent program.

Currently, the Traffic Division and Bureau of Transportation routinely receive a large number of requests from schools, neighborhood organizations and citizens specifically requesting the deployment of photo enforcement vans in order to enforce speed and curb aggressive driving.

2016 Public Survey

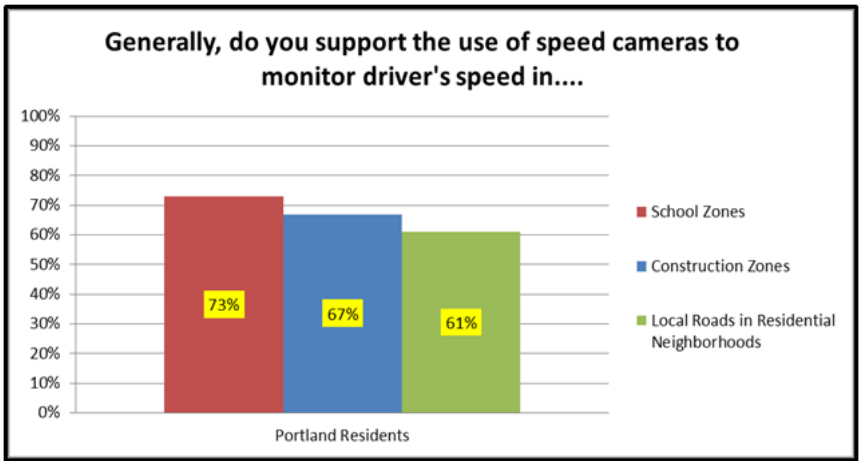
Since the program had not undergone a public survey since 2005, in March 2016, the Police Bureau collaborated with Portland State University to conduct an online survey that polled the relationship between the use of photo enforcement and public perception. More than 10,000 survey flyers were mailed randomly to residents in each Portland Metropolitan zip code. The survey consisted of 25 questions allowing participants to anonymously complete the survey by computer or smart phone. The results were submitted to Qualtrics, an online database. The data collection period lasted from April to June of 2016 and yielded a 1.05 response rate. Of the respondents, 63% believe drivers will drive more carefully where cameras are located.

2018 PBOT Public Survey

In 2018, the Portland Bureau of Transportation (PBOT), with the assistance of DHM Research, conducted another public opinion poll concerning speed photo enforcement. That survey showed a continued support of the photo enforcement programs. Participants were asked if they were aware that the City of Portland uses photo radar vans to enforce speed laws, 84% of participants responded that they were aware of the program. When participants were asked if they considered photo enforcement of traffic laws fair or unfair, 49% rated photo enforcement as fair or very fair while another 23% were neutral on the subject. Only 23% rated the use of photo enforcement as unfair or very unfair. Participants were also asked if they felt "traditional" enforcement of traffic laws, face to face contact with a police officer, was fair or unfair. The results were very similar

to those of photo radar enforcement. 43% of participants said they believed traditional enforcement was fair or very fair while another 29% was neutral. 23% said traditional enforcement was unfair or very unfair.

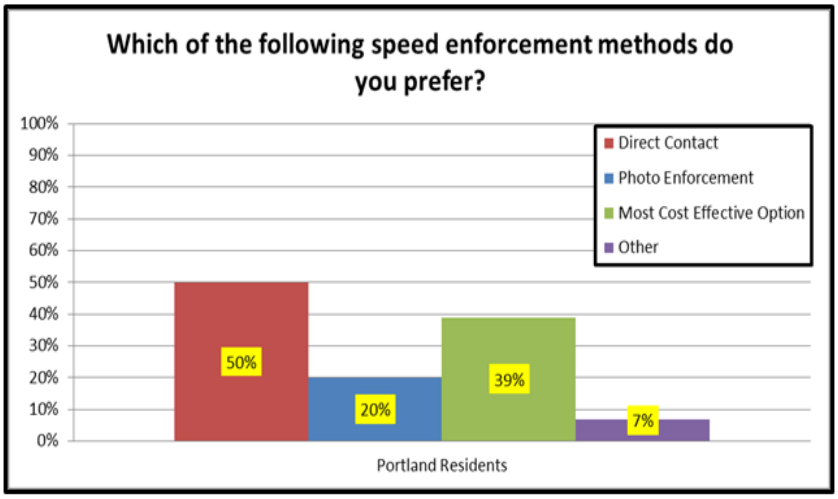
City of Portland residents expressed an awareness towards the use of photo enforcement and the City of Portland's programs. When participants were asked if they ever noticed signs in Portland that indicate traffic control devices are photo enforced, 72% of respondents indicated yes. Corresponding results were demonstrated when participants were asked if they were aware of the City of Portland's photo radar speed program, 65% of participants responded with yes. In addition to City of Portland resident awareness, another significant variable includes resident's support of the use of speed cameras to monitor drivers speed within three locations: School Zones, Construction Zones, and Local Roads in Residential Neighborhoods. When respondents were asked if they generally support the use of speed cameras to monitor driver's speeds in school zones, 73% of respondents indicated yes. Respondents demonstrated similar support for monitoring driver's speed in construction zones (67%) and local roads in residential neighborhoods (61%).



Preferred Speed Enforcement Options

When they were asked whether they think the police department is doing a good job addressing traffic issues in your neighborhood, 46% of respondents answered agree or strongly agree. Therefore, preferred speed enforcement methods were addressed in the survey. Participants were asked to select which of the following speed enforcement methods they prefer. The response options were direct contact from a police officer, photo enforcement, the most cost effective option and other. If participants selected "other", a follow-up question allowed the participant to fill-in their response. Participants were more likely to select "direct contact from a police officer" (50%) from the given options. The second most favored option included "the most cost effective option" (39%). When participants selected the "other" option (7%), respondents expressed the interest of receiving a combination including direct one on one officer contact as well as

additional traffic control features. Examples include widening streets, round-about circles, and speed bumps.



The Portland Police Bureau is committed to working with partners in government and the community to create safer streets and work towards reducing, and eventually eliminating, traffic fatalities as part of Vision Zero. In order to change behavior, the Portland Police Bureau recognizes the importance and value of educating the public on driver safety in areas photo enforcement is operated. The Portland Police Bureau Photo Enforcement Survey is one example that demonstrates how public education and increased awareness of photo enforcement safety will bring about greater awareness and leverage the benefit of the City of Portland programs.

Four surveys over the last two decades revealed consistently similar results. The 2005 survey revealed that 85% of drivers would drive slower consistently if they saw photo radar being used at least three times per week. The 2003 David and Hibbits survey disclosed that 71% of Portland residents support photo enforcement. In a like manner, even at the conception of the program, the 1996 public opinion poll showed 74% of city residents approved the use of photo radar in neighborhoods, while 89% of city residents approved of photo radar use in school zones. Again in 2018 public opinion of photo enforcement of speed laws remained high.

IV. PUBLIC EDUCATION

Diversion Class

In order to change behavior, the Portland Police Bureau recognizes the importance and value of educating the public on driver safety in areas photo enforcement is operated. To create a platform for dialogue with violators, a traffic safety class was birthed in the spring of 2016 for Photo Enforcement violations. The Portland Police Bureau has collaborated with Oregon Driver Education Center (ODEC) to message Vision Zero objectives.

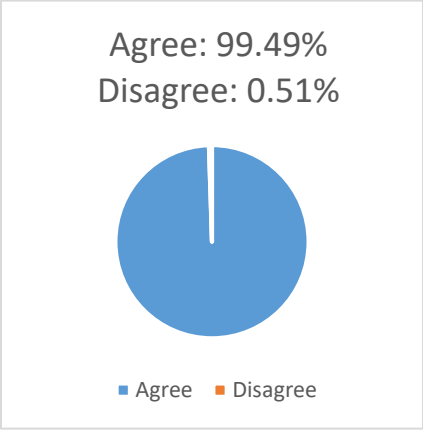
- Increase understanding of Photo Enforcement Program
- Expose the public to the heart behind traffic safety enforcement
- Demonstrate how our actions impact other's lives
- Deflect frustration and common misperceptions pertaining to photo enforcement
- Reintroduce face to face contact between community and traffic safety personnel that has been lacking with photo enforcement
- Create awareness, change mental attitude and driving behavior
- Reduce crashes, and save lives

In lieu of the citation appearing on a violator's driving record a violator may take the diversion class. To be elligible for the course violators cannot have had more than one speeding or red light ticket in the past three years and only qualifies for the course one time.

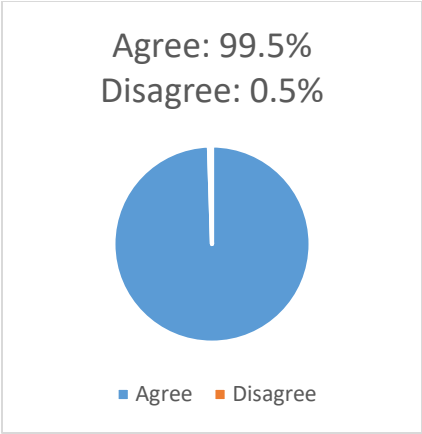
By the end of 2020, 39,149 people had attended the class. 13,922 people attended the class in 2019 and 6,483 people attended in 2020. Due to the COVID 19 pandemic, in March 2020, the class was forced to close for live instructions. During the time the class was shut down, the Police Bureau was able to modify the class and, in July, 2020, began offering the class via an internet video link. The class has been remotely operational since that time.

Class participants are asked to give feedback about the class, its content and instruction. The results have consistently been very high. The results of their reviews and feedback can be found below.

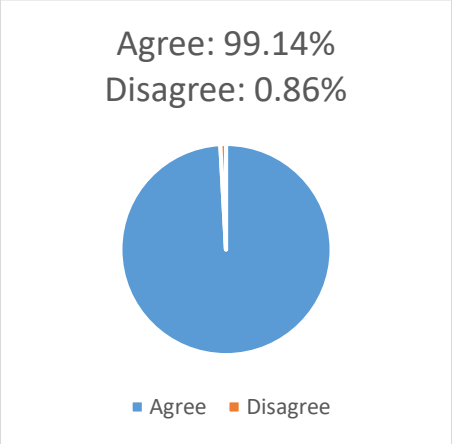
1- The instructors were knowledgeable on the subject matter.



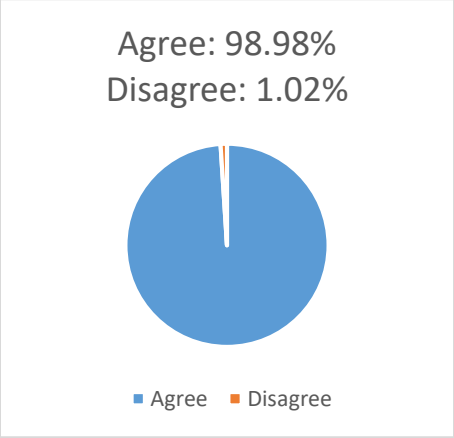
2- The instructors were prepared for the class.



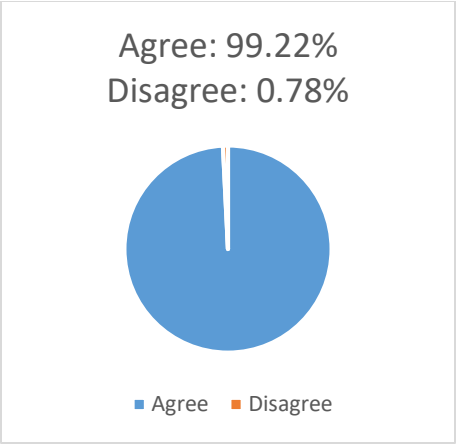
3-The instructors provided a good variety of lecture, discussion, and activities.



4- The instruction I received in this class has changed my mental attitude toward my driving behavior.



5- The class was interesting, insightful, and kept my attention.



In order to change behavior, the Portland Police Bureau recognizes the importance and value of educating the public on driver safety in areas where photo enforcement is operated. We believe these efforts will be a catalyst for bringing about greater awareness of the Vision Zero goals and ultimately leverage the benefits of the program.

CONCLUSION

Developing a proactive traffic safety program which combines enforcement with education is one of the best ways to control, reduce and ultimately, eliminate the burdensome costs on government and society which are incurred from crashes. While photo enforcement alone will not solve all of society's traffic safety problems, it is a valuable tool in achieving safe, efficient streets. The continued use of photo radar vans will help the City of Portland come closer to achieving its goals of zero traffic deaths.

CITY OF PORTLAND
RED LIGHT CAMERA BIENNIAL REPORT
2019-2020

Sergeant John Holbrook
Portland Police Bureau
Traffic Division

7214 N. Philadelphia Ave.
Portland, OR 97203
503-823-2153
m.john.holbrook@portlandoregon.gov

Contractor Information:
Vincent K. Parke
Conduent
Northwest Regional Program Manager

BACKGROUND-REPORT REQUIREMENTS

810.434 Photo red light; operation; evaluation. (1) Any city may, at its own cost, operate cameras designed to photograph drivers who violate ORS 811.265 by failing to obey a traffic control device.

(2) Cameras operated under this section may be mounted on street lights or put in other suitable places.

(3) A city that chooses to operate a camera shall:

(a) Provide a public information campaign to inform local drivers about the use of cameras before citations are actually issued; and

(b) Once each biennium, conduct a process and outcome evaluation for the purposes of subsection (4) of this section that includes:

(A) The effect of the use of cameras on traffic safety;

(B) The degree of public acceptance of the use of cameras; and

(C) The process of administration of the use of cameras.

(4) By March 1 of each odd-numbered year, each city that operates a camera under this section shall present to the Legislative Assembly the process and outcome evaluation conducted by the city under subsection (3) of this section. [1999 c.851 §1; 1999 c.1051 §327; 2001 c.474 §1; subsection (5) of 2001 Edition enacted as 2001 c.474 §3; 2003 c.14 §491; 2003 c.339 §1; 2005 c.686 §1; 2007 c.640 §1; 2011 c.545 §65]

I. BACKGROUND:

The City of Portland received authority from the 2000 Legislature to implement the use of red light cameras to enforce O.R.S. 811.265, which covers disobeying traffic control devices. Using traffic volume and crash data provided by the PBOT, four (4) intersections, with a total of five (5) cameras were initially chosen as test project for this technology. The initial five cameras were activated in October, 2001 and January, 2002.

With the success of the testing phase, the red light camera program was expanded over the following 7 years to a high of 11 red light cameras in use at 10 intersections. One camera was removed for intersection re-construction and has not been replaced. Camera locations were chosen, not where intersections with the most crashes occurred, but rather the intersections where injury crashes were determined to be caused from red-light running.

Portland's 10 red light cameras are currently functioning at 9 intersections; installation date and enforcing direction is as follows:

- E Burnside at Grand Avenue, northbound approach, 10/2001
- NE Sandy Blvd at Cesar E. Chavez Blvd, westbound approach, 10/2001
- NE Cesar E. Chavez Blvd. at NE Sandy Blvd, northbound approach, 10/2001
- SE Grand Avenue at Madison Street, northbound approach, 01/2002
- W Burnside at 19th Avenue, eastbound approach, 01/2002 (During the summer of 2018 this camera was temporarily removed for road construction.)
- NE Broadway at Grand Avenue, westbound approach, 04/2003
- SE Stark St at SE 102nd Avenue, westbound approach, 08/2008
- SW 4th Ave at SW Jefferson St, northbound approach, 10/2007
- SE Washington St at SE 103rd Avenue, eastbound approach, 02/2008
- SE Stark St at SE 99th Avenue, westbound approach, 08/2008
- SE Foster Rd at SE 96th Ave, westbound approach, 05/2009

The City of Portland is committed to ensuring that all traffic signage is up to date and in conformance with Oregon law and MUTCD standards for automated enforcement.

II. IMPROVEMENTS ON TRAFFIC SAFETY

To select locations for red light photo enforcement, we conducted an analysis of intersections within the city. Intersections were selected for the program based on a significant crash history attributed to disregard of the traffic signal.

Crash data provides a strong understanding of where crashes occur, crash type, and crash severity. The Portland Police Bureau's Strategic Services Division in cooperation with the Portland Bureau of Transportation (PBOT) has conducted analysis on prospective intersections for possible program expansion. To alleviate duplication in statistics, information was gathered and analyzed from multiple systems including RMS, RegJIN, CAD systems as well as DMV, ODOT and PBOT databases. Individual incidents were identified and isolated through calls for service, police reports, and other database information. By inspecting a wide variety of information sources, we gained a more complete understanding of where crashes, caused by running red lights, were occurring.

Portland's experience with red light cameras has been positive. While there remain challenges with drawing specific conclusions about the direct impact of red light cameras, very positive trends are occurring at intersections with red light camera enforcement.

Violations Captured

	2019	**2020**
Violations Captured	14,064	14,533
Citations Issued	6,963	6,359

Portland Police Bureau's Strategic Services Division conducted an analysis of red light intersection crashes. Incidents were counted within an approximate distance of 50 feet of the identified intersection. Data was compiled from individual reports and calls for service obtained within the Police Bureau's RegJIN System and RMS and mapped for distance relationship, which yielded a more accurate crash rate than what was represented in Oregon Crash Reports and also on previous biennium reports.

Compared to the previous biennial periods, 2015-2016, this biennial period, 2017-2018, saw a significant decrease in crashes at red light camera intersections. In 2015-2016, 140 injury and non-injury crashes occurred at red light camera intersections. In 2017-2018, 120 combined injury and non-injury crashes occurred. Rear-end crashes accounted for 16 out of the 120 crashes the majority of which were non-injury. Right angle crashes, which are commonly caused from red light running and known to be dangerous, accounted 16 of the 120 crashes, down from 27 of the 140 crashes in the previous biennial period.

During the 2017-2018 biennium, injury crashes at red light camera intersection rose slightly. Approximately 34% of 2017-2018 reported crashes at red light intersections resulted in injury.

Whereas in 2015-2016, only 24% resulted in injury. The Police Bureau uses crash data not merely to run numbers of crash type per intersection, but also considers if there are common factors causing the crashes.

III. CITY OF PORTLAND RED LIGHT CAMERA AUDIT

In 2014-2015 the Red Light Program underwent an audit from the City Auditor's office. The auditor's report found that a crash rate of 1.00 or higher is of concern. The crash rate at Portland's worst intersections averaged 1.39. The crash rate at the City's red light camera intersections averaged 0.75 before the cameras were installed and 0.42 after the cameras were installed, a 44 percent decline.

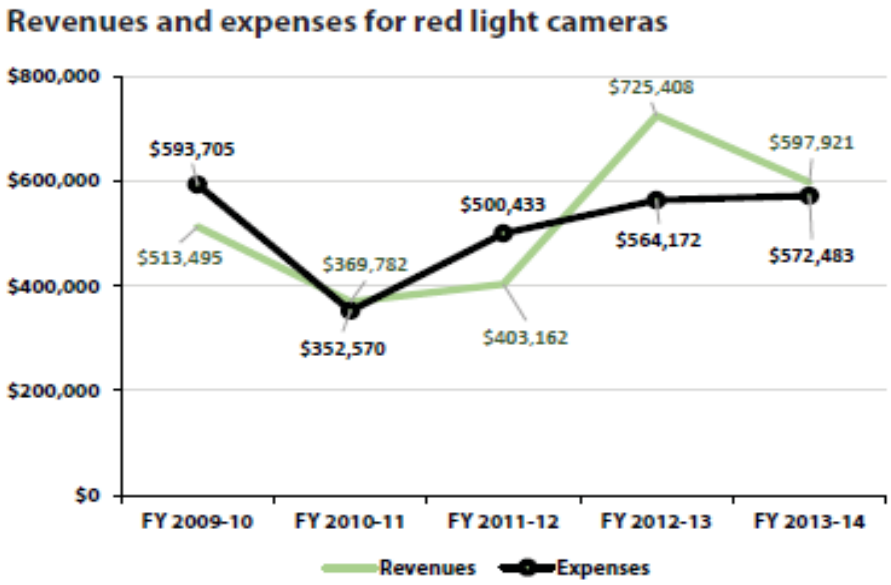
Relocation of Cameras

Since 2010, the contract with the vendor has allowed for five additional cameras. As serious crashes are consistently occurring at other intersections, the auditor's report encouraged the Police Bureau to look for additional intersections suitable for cameras where traditional methods of enforcement and engineering changes are not feasible.

The Police Bureau and PBOT have discussed relocating several red light cameras where crashes have remained low. The Police Bureau and PBOT have discussed with Conduent, intersections that would be viable candidates for camera re-location and program expansion. Data was pulled and analyzed where the highest intersection crashes have been occurring. To alleviate potential problems which have surfaced at current camera locations, PPB, PBOT and Conduent have conducted site surveys of prospective locations. These site surveys were intended to determine potential problems, which include roadway configuration, factors that contributed to red light violations, potential improvements/countermeasures that may be implemented, and potential camera clarity/visibility issues. NB Glisan St/NB Exit Ramp and SE 82nd Avenue/Powell Boulevard were determined as prospective site locations for new cameras as were SE Stark Street/SE 122nd Avenue and SE Stark Street/SE 142nd Avenue.

Revenue

The 2014 audit revealed the program does not always pay for itself and has not been a significant source of revenue. As can be seen below, in two of the five years analyzed, the program lost money.



Source: Portland Police Bureau

IV. EDUCATION

Diversion Class

In order to change behavior, the Portland Police Bureau recognizes the importance and value of educating the public on driver safety in areas photo enforcement is operated. To create a platform for dialogue with violators, in the spring of 2016 a traffic safety class for Photo Enforcement violations was birthed. The Portland Police Bureau has collaborated with Oregon Driver Education Center (ODEC) to message Vision Zero objectives.

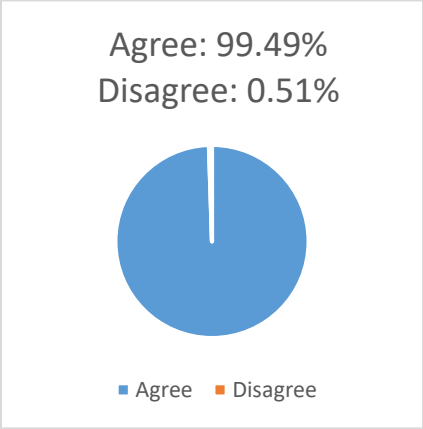
- Increase understanding of Photo Enforcement Program
- Expose the public to the heart behind traffic safety enforcement
- Demonstrate how our actions impact other's lives
- Deflect frustration and common misperceptions pertaining to photo enforcement
- Reintroduce face to face contact between community and traffic safety personnel that has been lacking with photo enforcement
- Create awareness, change mental attitude and driving behavior
- Reduce crashes, and save lives

In lieu of the citation appearing on a violator's driving record a violator may take the diversion class. To be elligible for the course violators cannot have had more than one speeding or red light ticket in the past three years and only qualifies for the course one time.

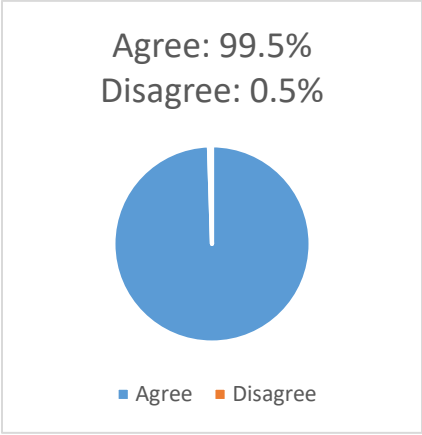
By the end of 2020, 39,149 people had attended the class. 13,922 people attended the class in 2019 and 6,483 people attended in 2020. Due to the COVID 19 pandemic, in March 2020, the class was closed for live instructions. During the time the class was shut down, the Police Bureau was able to modify the class and, in July, 2020, began offering the class via an internet video link. The class has been remotely operational since that time.

Class participants are asked to give feedback about the class, its content and instruction. The results have consistently been very high. The results of their reviews and feedback can be found below.

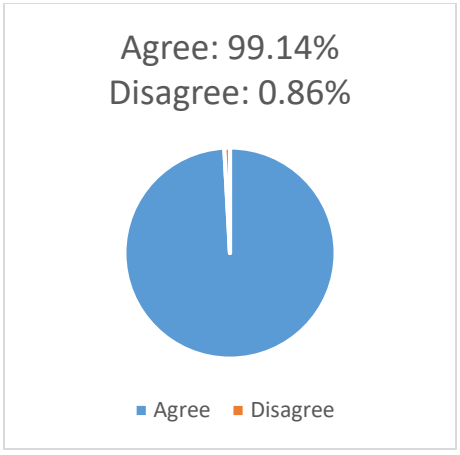
2- The instructors were knowledgeable on the subject matter.



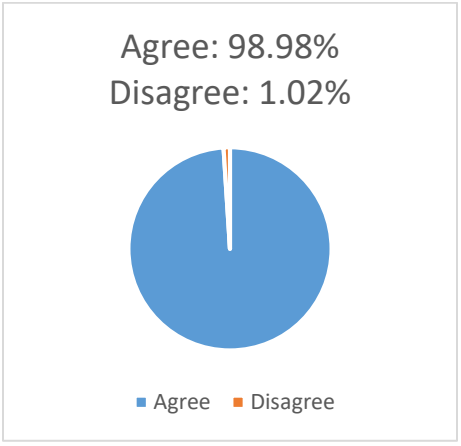
2- The instructors were prepared for the class.



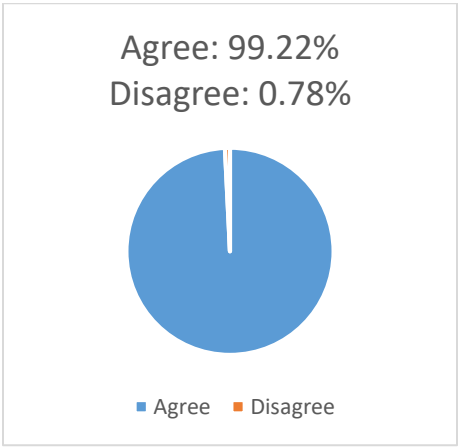
3-The instructors provided a good variety of lecture, discussion, and activities.



4- The instruction I received in this class has changed my mental attitude toward my driving behavior.



5- The class was interesting, insightful, and kept my attention.



In order to change behavior, the Portland Police Bureau recognizes the importance and value of educating the public on driver safety in areas where photo enforcement is operated. We believe

these efforts will be a catalyst for bringing about greater awareness of the Vision Zero goals and ultimately leverage the benefits of the program. The cost of crashes on government and the public is very high, both in loss of life and quality of life as well as costs related to property damage, medical expenses and commerce. The City hopes that the efforts to educate the public will result in the reduction of crashes at these locations.

V. PUBLIC ACCEPTANCE

Upon first implementation of the Photo Red Light Program, the City of Portland initiated public outreach for photo enforcement as a part of efforts to educate the public as outlined in previous biennial reports. In addition, Portland Police Bureau maintains a web site regarding information about red light cameras.

In March 2016, the Police Bureau conducted a survey to determine the public's perception of the program. More than 10,000 survey flyers were mailed randomly to Portland residents. The data collection period lasted seven weeks from 12 April to 6 June of 2016, and gleaned a 1.05 response rate. Of the respondents, more than 74% were supportive of using red light cameras at high crash intersections. Only 66% were aware of the Red Light Program. 63% believe drivers will drive more carefully where cameras are located.

These results parallel the 2003 David and Hibbits survey, where 71% of Portland residents reported that they support additional red light camera locations being installed in the City.

The Portland Police Bureau Photo Enforcement Survey is one example that demonstrates how public education and increased awareness of photo enforcement safety will bring about greater awareness and leverage the benefit of the City of Portland programs.

In 2010 the Portland Police Bureau's photo-enforcement program was selected for review as part of a study done for the National Cooperative Highway Research Program [NHRCP]. Our program was one of only five programs nationwide to be selected for review. Our program was selected because of its longevity, continued success, and continued public support. In that review, we stressed the importance of maintaining the public's trust and running a transparent program.

VI. RED LIGHT CAMERA PROCESS AND ADMINISTRATION

810.436 Citations based on photo red light; response to citation. (1) Notwithstanding any other provision of law, if a city chooses to operate a camera that complies with this section and ORS 810.434, a citation for violation of ORS 811.265 may be issued based on photographs from a camera taken without the presence of a police officer if the following conditions are met:

(a) Signs are posted, if practicable, on all major routes entering the jurisdiction indicating that compliance with traffic control devices is enforced through cameras.

(b) For each traffic control device at which a camera is installed, signs indicating that a

camera may be in operation at the device are posted before the device at a location near the device.

(c) If the traffic control device is a traffic light, the yellow light shows for at least the length of time recommended by the standard set by the Institute of Transportation Engineers.

(d) The citation is mailed to the registered owner of the vehicle, or to the driver if identifiable, within 10 business days of the alleged violation.

(e) The registered owner is given 30 days from the date the citation is mailed to respond to the citation.

(f) A police officer who has reviewed the photograph signs the citation. The citation may be prepared on a digital medium, and the signature may be electronic in accordance with the provisions of ORS 84.001 to 84.061.

(2) If the person named as the registered owner of a vehicle in the current records of the Department of Transportation fails to respond to a citation issued under subsection (1) of this section, a default judgment under ORS 153.102 may be entered for failure to appear after notice has been given that the judgment will be entered.

(3) A rebuttable presumption exists that the registered owner of the vehicle was the driver of the vehicle when the citation was issued and delivered as provided in this section.

(4) A person issued a citation under subsection (1) of this section may respond to the citation by submitting a certificate of innocence or a certificate of non-liability under subsection (6) of this section or any other response allowed by law.

(5) A citation for violation of ORS 811.265 issued based on photographs from a camera installed as provided in this section and ORS 810.434 may be delivered by mail or otherwise to the registered owner of the vehicle or to the driver if the driver is identifiable from the photograph.

(6)(a) A registered owner of a vehicle may respond by mail to a citation issued under subsection (1) of this section by submitting, within 30 days from the mailing of the citation, a certificate of innocence swearing or affirming that the owner was not the driver of the vehicle and by providing a photocopy of the owner's driver license. A jurisdiction that receives a certificate of innocence under this paragraph shall dismiss the citation without requiring a court appearance by the registered owner or any other information from the registered owner other than the swearing or affirmation and the photocopy. The citation may be reissued only once, only to the registered owner and only if the jurisdiction verifies that the registered owner appears to have been the driver at the time of the violation. A registered owner may not submit a certificate of innocence in response to a reissued citation.

(b) If a business or public agency responds to a citation issued under subsection (1) of this section by submitting, within 30 days from the mailing of the citation, a certificate of non-liability stating that at the time of the alleged violation the vehicle was in the custody and control of an employee or was in the custody and control of a renter or lessee under the terms of a motor vehicle rental agreement or lease, and if the business or public agency provides the driver license number, name and address of the employee, renter or lessee, the citation shall be dismissed with respect to the business or public agency. The citation may then be reissued and delivered by mail or otherwise to the employee, renter or lessee identified in the certificate of non-liability.

(7) The penalties for and all consequences of a violation of ORS 811.265 initiated using a camera installed as provided in this section and ORS 810.434 are the same as for a violation initiated by any other means.

(8) A registered owner or an employee, renter, or lessee against whom a judgment for failure to appear is entered may move the court to relieve the owner or the employee, renter or lessee from the judgment as provided in ORS 153.105 if the failure to appear was due to mistake, inadvertence, surprise or excusable neglect. [1999 c.851 §2; 2001 c.104 §305; 2001 c.474 §2; 2001 c.535 §30a; 2003 c.14 §493; 2003 c.339 §3; 2005 c.686 §2; 2007 c.640 §2]

The administrative process for photo red light enforcement includes citation processing and issuance, delivery, payment, and adjudication.

Citations are processed by the vendor, Conduent, in accordance with a multi-step process that ensures that the violation image, violation data, and owner information are as accurate as possible. If any of this evidence does not meet stringent quality control standards, citations are not issued.

Violation/Citation Processing

The vendor operates the cameras and retrieves digital data from each camera for processing each business day. The images and data are then screened by the vendor. If a license plate can be identified, a request is sent to the Oregon NLETS or Department of Motor Vehicles (DMV) for the registered owner information. Once NLETS or DMV information is obtained, it will be reviewed along with pertinent details of the violation.

The vendor discards violations where there is no gender match to the registered owner, or owners. They also discard any violations where the driver is not identifiable due to factors such as window glare, facial obstructions, etc.

Any violation that passes the first screening by Conduent is put into citation form and placed into a secure database for police officer review. A Portland police officer certified in red light camera enforcement reviews each citation/violation for accuracy. This includes viewing a video clip of the violation. If the citation passes police officer review, and it is determined that a violation has occurred, the citation is electronically signed and returned to Conduent for issuance.

Conduent will mail each citation, along with a photo from the violation, to the registered owner. This citation must be mailed within ten (10) business days of the violation to remain in compliance with ORS 810.436. The recipient is also given a PIN number and directions to access the Conduent website. On this website, they can view high resolution images of the violation as well as the 12 second video clip taken by the red light camera.

The registered owner has thirty (30) days to respond to this citation. They are afforded all of the same rights as a defendant would have with any traffic violation. The citation is processed with the state of Oregon court system. The presumption in Oregon is that the registered owner is the driver at the time of the violation.

If the registered owner was not driving the vehicle when the violation occurred, he or she may file a Certificate of Innocence with the Circuit Court, at which time the citation will be dismissed. A Certificate of Innocence is included with each citation.

The Portland Police Bureau's photo-enforcement project manager subsequently reviews the Certificates of Innocence for accuracy.

The Portland Police Bureau initiated and has maintained information about red light cameras at http://www.portlandoregon.gov/police/30559, which can be referenced by the public.

CONCLUSION

Through weekly meetings with the vendor, the Portland Police Bureau's Traffic Division has continued to monitor and track vendor and program operations to ensure best practices are followed and goals are met; to bring about public awareness, reduce serious injury and fatal crashes, and create safer roadways for the public. The Portland Police Bureau is committed to working with partners in government and the community to create safer streets and work towards reducing, and eventually eliminating, traffic fatalities as part of Vision Zero.