

### Excerpts from Traffic Safety Program Evaluation, SGI

1. The overarching goal of the PSE program was “zero speeding tickets, zero crashes.” A target violation rate of less than 1% of drivers (exceeding a selected location-based threshold) was set for all camera locations. Data on speed threshold violation rates at the high-speed camera locations since ticketing began in March 2015 were collected for monitoring and evaluation purposes (Table E1).

**From Table E1: Monthly Speed Threshold Violation Rates in High-Speed Locations**

Speed Camera Location	Mar '15	Apr '15	May '15	Jun '15	Mar '16	Apr '16	May '16	Jun '16	Jan '17	Feb '17	Mar '17	Average
Circle Drive in Saskatoon	0.41%	0.19%	0.19%	0.28%	0.63%	0.43%	0.57%	0.15%	0.24%	0.31%	0.38%	0.36%

Table E1 indicates that on Circle Drive in Saskatoon the target violation rate of less than 1% was met.

2. The before and after monthly average speeds at high-speed locations was also collected and evaluated.

**From Table E2: Before and After Monthly Average Speeds at High-Speed Locations**

High-Speed Location	Posted Speed Limit (km/h)	Average Speed Before Installation (km/h)	Average Speed After Installation (km/h)	Change in Speed (km/h)	% change in speed (km/h)
Circle Drive in Saskatoon	90	97.7	86.1	-11.6	-11.90%

In terms of the percentage reduction in average speed, the cameras had the most impact at the Highway 12 location followed by Circle Drive in Saskatoon.

3. Table E3 indicates that the 85<sup>th</sup> percentile speeds (the speed that drivers tend to adopt according to the road environment, which indicates degree of compliance with the posted speed limit, and hence the degree of traffic calming attained) across the high-speed corridors before and after implementation of the pilot.

**From Table E3: 85<sup>th</sup> Percentile Speeds on High-Speed Locations: Before PSE vs. After PSE**

High-Speed Location	Posted Speed Limit (km/h)	85 <sup>th</sup> Percentile Speed Before PSE (km/h)	85 <sup>th</sup> Percentile Speed After PSE (km/h)	Change in Speed After PSE (km/h)	% change in speed after PSE(km/h)
Circle Drive in Saskatoon	90	109.4	92.6	-16.8	-15.4%

4. The violation rates for school zone locations are shown in Table E6.

**Table E6: Monthly Speed Threshold Violation Rates in School Zones**

Speed Camera Location	Mar '15	Apr '15	May '15	Jun '15	Mar '16	Apr '16	May '16	Jun '16	Jan '17	Feb '17	Mar '17	Average
Saskatoon School Zones	1.50%	5.59%	8.70%	6.26%	2.64%	0.42%	0.81%	0.51%	0.28%	2.18%	2.37%	2.30%

Looking at the trends in violation rates, it can be noted that Saskatoon school zones moved from an average high of 8.7% in May 2015 to 2.37% in March 2017.

Similar to the analysis of average speed of travel in the school zones, the 85<sup>th</sup> percentile speeds were monitored from April 2015 through March 2016 and compared with the same period a year later. The data indicates that the 85<sup>th</sup> percentile speeds for Saskatoon decreased from 37.4 km/h to 35.1 km/h.

The expense/revenue breakdown at camera locations is presented in Table E9.

**Table E9: Revenues, Expenses and net Revenue from the PSE Pilot by Location**

Camera Location	Revenue*	Expenses	Net Revenue
Highway Locations	\$1,255,953	\$1,136,810	\$119,143
Saskatoon	\$2,653,081	\$1,579,717	\$1,073,364
Regina	\$4,169,542	\$1,428,469	\$2,741,073
Moose Jaw	\$2,358,359	\$1,273,167	\$1,085,192
Total	\$10,436,935	\$5,418,163	\$5,018,772

\*75% of total revenue; the remaining 25% of total revenue is allocated to the General Revenue Fund for the administration of the court and collection processes

5. Conclusion: This evaluation of the PSE pilot project found the following:

- The PSE pilot positively impacted speeding behaviour (speed violation rates) at both the high-speed locations and school zones.
- The 1% violation target has been achieved at almost all camera locations.
- Average speeds have been reduced between 3.4 km/h on the Ring Road in Regina (3.5% reduction) to 17.7 km/h on Highway 12 near Martensville (16.9% reductions). With the exception of Moose Jaw school zone locations, where the 85<sup>th</sup> percentile speed remained stable, the speed at or below which 85% of all vehicles were observed travelling under free-flowing conditions past the camera locations trended downwards towards the posted speed limit following the installation of the cameras.
- The pilot project has had a positive impact on the frequency and severity of collisions, especially the targeted speed-related collisions (28 from high-speed locations and seven from school zones) resulting in an estimated 50 fewer injuries (40 from high-speed locations and 10 from school zones).
- The benefit-cost analysis of the PSE pilot from SGI's insurance costs perspective indicates a net present value of \$10.7 million at the end of an assumed projected life of 10 years. This is equivalent to the project returning

\$1.64 for \$1 invested in the PSE program. From a societal perspective, the program would generate a net present value of \$62.4 million, which is equivalent to B/C ratio of 4.2:1.

- Most Saskatchewan residents want the photo speed enforcement program to be continued and expanded to other areas of the province. Specifically, about 56% of the general public want the program to continue, while 93% of those who want the program to continue want it to expand.