

# Denver Police DDACTS: Year 1

This analysis explores two questions: did officer activity increase within DDACTS zones and times during the active period compared to the previous three years and how did crime and accident rates change.

Officer activity is measured by the total amount of time any police unit spent on either a citizen- (class 1) or officer-initiated (class 2) call within a DDACTS zone including an approximately one-block buffer around the zone. Crime rate measurements include all UCR part 1 violent and property crimes excluding shoplifting, domestic violence, and child abuse. Shoplifting, domestic violence, and child abuse are excluded because these crime types are rarely impacted by the methods employed by the DDACTS strategy. Accident rate changes consider all traffic accidents excluding those that occurred on I-25, I-70, or Highway 6. For this analysis, the active period began May 1, 2015 and concluded on April 30, 2016, which is being compared to the prior thirty-six-month average, May 1, 2012 to April 30, 2015.

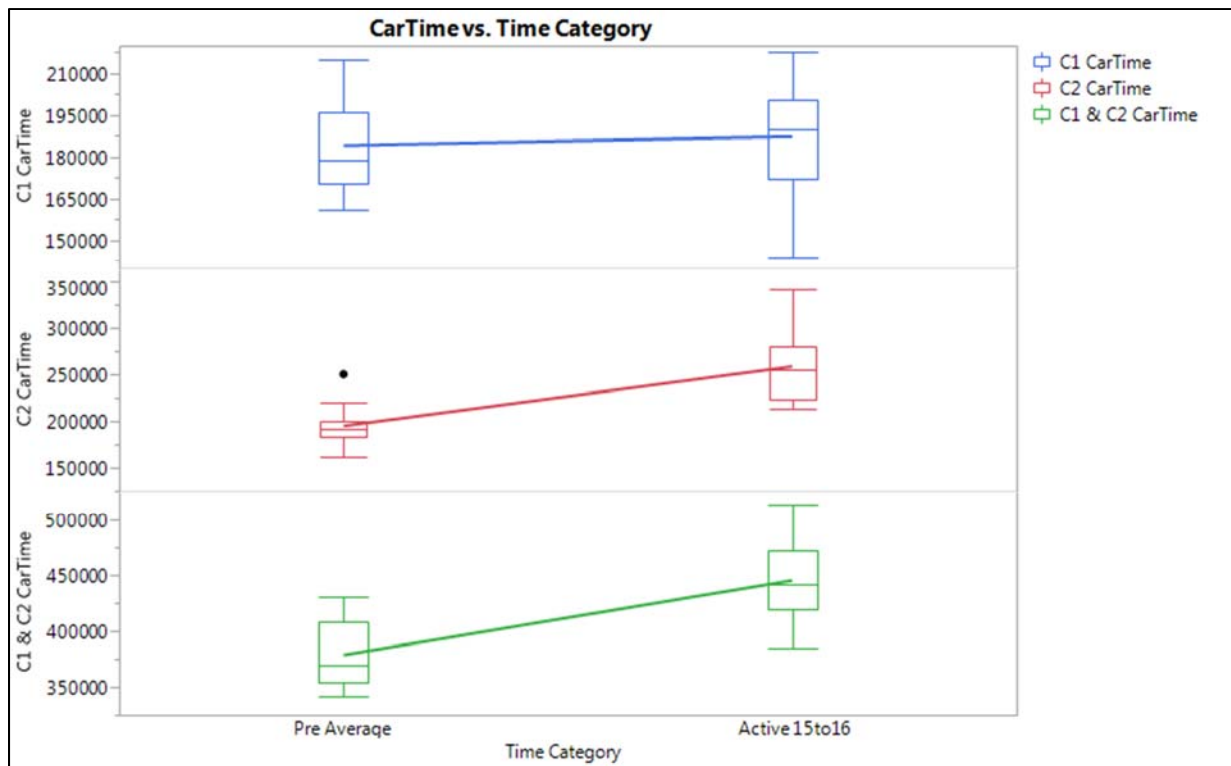
## Summary:

- Citywide, officer activity increased within DDACTS areas and times during the active period (mean=7,419 hours/month) compared to the previous three-year average (mean=6,309 hours/month), a 17.6% increase.
- All six districts had an increase in the amount of time officers spent responding to class 2 calls within DDACTS areas and times. The smallest increase was in District 2 (12.6%) and the largest increase was within District 6 (41.7%).
- Citywide, crime and accidents combined decreased within DDACTS areas and times during the active year (mean=177 incidents/month) compared to the previous three-year average (mean=198 incidents/month), a 10.4% decrease.
- Within the DDACTS areas and times, crime was down by 10.7% in all districts when comparing the active year to the previous three-year average. The lowest reduction was -7% in District 6 and the highest was -32.7% in District 4. This decrease translates into 161 fewer crimes within the DDACTS areas and times citywide.
- Overall, there were 246 fewer incidences, a 10.4% decrease, of crime and accidents within the DDACTS areas and times during the active year compared to the previous three-year average.

## Citywide and Districts

### **Officer activity within DDACTS areas and times citywide:**

The first goal of identifying DDACTS areas and times was to increase officer activity and visibility within them. Notably, while there was little change in the amount of time spent responding to class 1 calls between the two time periods (active mean=3,123 hours/month versus previous mean=3,070 hours/month); there was, however, a large increase in the amount of time spent responding to class 2 calls (active mean=4,296 hours/month versus previous mean=3,239 hours/month). The green pair of box plots below, representing both class 1 and 2 activity combined, shows that officer activity did increase by 17.6% within DDACTS areas and times citywide during the active period (mean=7,419 hours/month) compared to the previous three-year average (mean=6,309 hours/month).



**Officer activity within DDACTS areas and times by district:**

The city as a whole showed little change, a 1.7% increase, in the amount of time officers spent responding to class 1 calls within the DDACTS areas and times. District 1 had the greatest decrease in officer time spent on class 1 calls at -10.6% and District 5 had the largest increase at 12.6%.

All six districts had an increase in the amount of time officers spent responding to class 2 calls with the smallest increase, at 12.5%, in District 2 and the largest increase within District 6 at 41.7%.

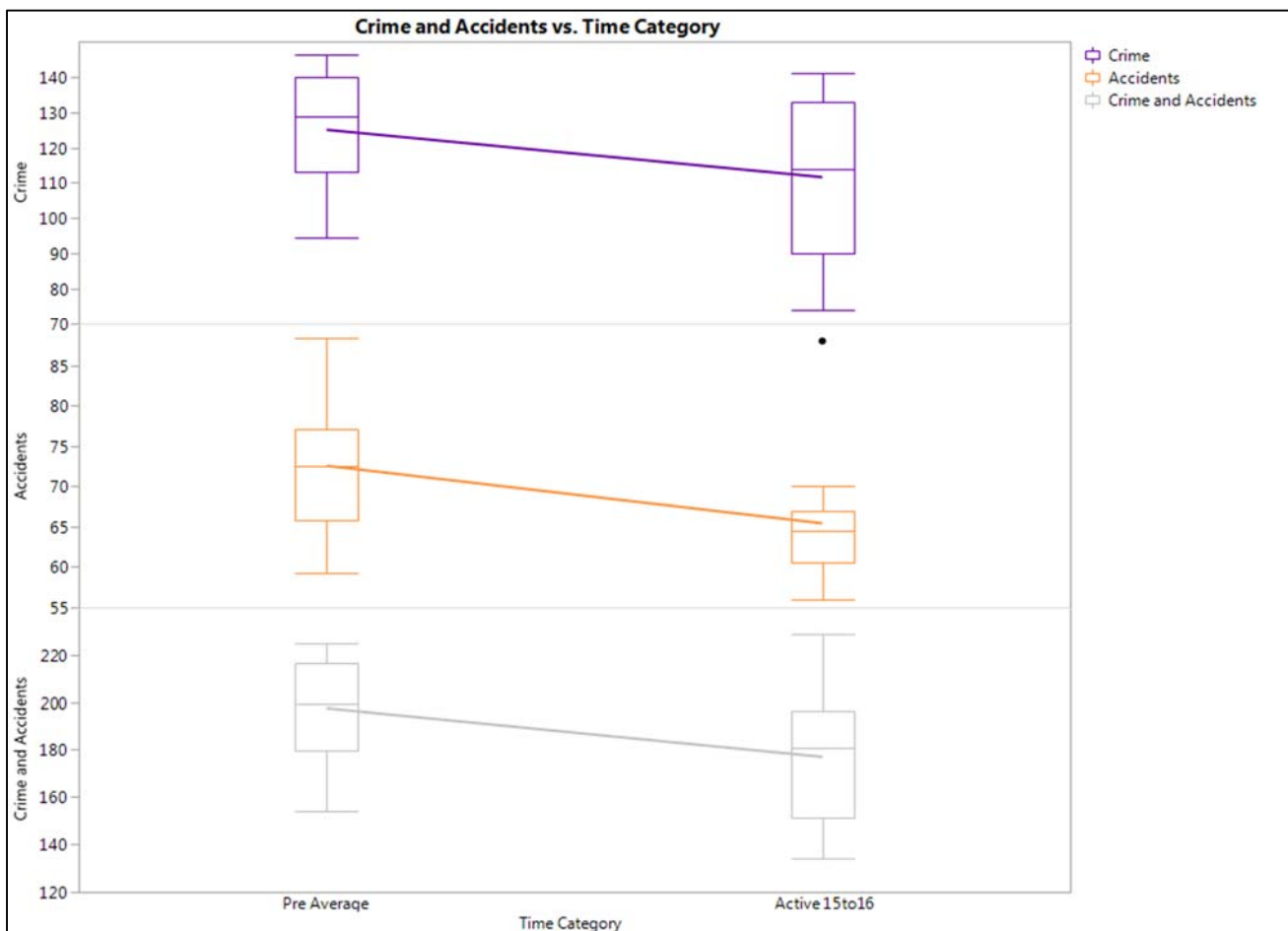
Overall, all districts had an increase in the amount of time officers spent within their DDACTS areas and times.

Officer Activity within DDACTS Areas and Times									
Hours, Previous Three-Year Average versus Active Year									
District	Class 1			Class 2			Both Class 1 and 2		
	Pre Average	Active	% Change	Pre Average	Active	% Change	Pre Average	Active	% Change
1	5,876	5,254	-10.6%	4,258	5,418	27.2%	10,134	10,672	5.3%
2	4,079	3,892	-4.6%	3,651	4,109	12.5%	7,730	8,001	3.5%
3	6,683	6,441	-3.6%	3,069	3,748	22.1%	9,752	10,189	4.5%
4	3,366	3,559	5.7%	2,721	3,409	25.3%	6,087	6,968	14.5%
5	2,109	2,374	12.6%	2,984	3,429	14.9%	5,093	5,804	14.0%
6	14,733	15,955	8.3%	22,188	31,440	41.7%	36,921	47,395	28.4%
Total	36,846	37,475	1.7%	38,870	51,553	32.6%	75,716	89,029	17.6%

### Crime and accidents within DDACTS areas and times citywide:

The second goal of identifying DDACTS areas and times was to decrease crime and accidents within them. The gray pair of box plots below, representing both crimes and accidents, shows that crime and accidents combined did decrease by 10.4% within DDACTS areas and times citywide during the active year (mean=177 incidents/month) compared to the previous three-year average (mean=198 incidents/month).

When considering just crime or just accidents, each category also had similar decreases. For crime, the active year mean was 111 crimes/month compared to the previous three-year average of 125 crimes/month, a 10.7% decrease. For Accidents, the active year mean was 65 accidents/month versus 72 accidents/month, a 9.8% decrease.



### Crime and accidents within DDACTS areas and times by district:

Within the DDACTS areas and times, crime was down in all districts. The lowest reduction was -7% in District 6 and the highest was -32.7% in District 4. This decrease translates into 161 fewer crimes within the DDACTS areas and times citywide. For accidents, all but one district, District 1, had a reduction. District 1 saw no change in the number of accidents. District 4 saw the biggest reduction in accidents, as

well as in crimes, with a 22% decrease. Overall, there were 246 fewer incidences, a 10.4% decrease, of crime and accidents within the DDACTS areas and times during the active year compared to the previous three-year average.

Crime and Accidents within DDACTS Areas and Times									
Number of Incidents, Previous Three-Year Average versus Active Year									
District	Crime			Accidents			Both Crime and Accidents		
	Pre Average	Active	% Change	Pre Average	Active	% Change	Pre Average	Active	% Change
1	150	136	-9.1%	126	126	0.0%	275	262	-4.8%
2	213	193	-9.5%	78	62	-20.9%	292	255	-12.6%
3	174	147	-15.4%	258	240	-6.9%	431	387	-10.3%
4	107	72	-32.7%	91	71	-22.0%	198	143	-27.8%
5	52	44	-15.9%	77	70	-9.1%	129	114	-11.9%
6	805	748	-7.0%	241	216	-10.4%	1,046	964	-7.8%
Total	1,501	1,340	-10.7%	871	785	-9.8%	2,371	2,125	-10.4%

### DDACTS Areas

#### **Officer activity within DDACTS areas and times by DDACTS area:**

Of the twenty-seven DDACTS areas, five had a decrease when comparing the previous three-year average versus the active year in all three officer activity categories: class 1, class 2, and both combined. Those five were 38<sup>th</sup>/Quivas to Lipan in District 1, Colfax/Josephine in District 2, Leetsdale and University to Steel/1<sup>st</sup> to 3<sup>rd</sup> in District 3, and Mississippi/Zuni to Lipan in District 4.

Of the remaining twenty-two DDACTS areas, only three had a decrease in class 2 activity: Colorado/16<sup>th</sup> to 7<sup>th</sup> in District 2 at -23.3%, Alameda/King to Tejon in District 4 at -1.8%, and Peoria and Albrook in District 5 at -3.5%. All three of these areas did see an increase in class 1 time, which resulted in very modest changes in the amount of combined time spent in the areas. The remaining nineteen (70.4%) of the twenty-seven DDACTS areas had an increase in class 2 time.

#### **Crime and accidents within DDACTS areas and times by DDACTS area:**

Of the twenty-seven DDACTS areas, two had an increase when comparing the previous three-year average versus the active year in crime, accidents, and both combined. They were Colfax/Speer/Santa Fe (7.6% crimes, 12.5% accidents, 10.1% combined) and Federal and 10<sup>th</sup> (8% crime, 11% accidents, 9.8% combined), both in District 1.

Four additional DDACTS areas had increases in crime: Colfax/Spruce to Yosemite (26.3%) and Colorado/16<sup>th</sup> to 7<sup>th</sup> (50%) both in District 2, University to Steel/1<sup>st</sup> to 3<sup>rd</sup> (15.1%) in District 3, and Arapahoe to Wazee/18<sup>th</sup> to 24<sup>th</sup> (5.2%) in District 6.

Of the remaining twenty-one areas, three showed almost no change in crime, with a less than 1% difference between the previous three-year average and the active year; leaving eighteen with a reduction. The three areas with the greatest reductions in crimes were 38<sup>th</sup>/Quivas to Lipan (-79.3%) and Federal/51<sup>st</sup> to 47<sup>th</sup> (-47.1%) in District 1 and Alameda/King to Tejon (-56%) in District 4.

Eight areas saw increases in accidents, one had a less than 1% change, and the remaining eighteen recorded decreases in the number of accidents within the DDACTS areas and times from the previous three-year average to the active year. Mississippi/Zuni to Lipan in District 4 saw the biggest decrease in accidents at -57.1% and Colfax/Logan to High in District 6 saw the biggest increase at 35.1%.

When considering crime and accidents combined, only five (18.5%) of the twenty-seven areas saw an increase, the greatest being Colfax/Spruce to Yosemite in District 2 at 15.4%. Arapahoe to Wazee/18<sup>th</sup> to 24<sup>th</sup> showed almost no change at a 0.5% increase. The remaining twenty-one areas (77.8%) had a decrease in crime and accidents combined when comparing the previous three-year average to the active year. The largest decrease was in 38<sup>th</sup>/Quivas to Lipan in District 1 at -62.5% and the smallest decrease was in Colorado/Mississippi to Evans at -6%.

% Change Previous Three-Year Average versus Active Years within DDACTS Areas and Times							
District	DDACTS Areas	Class 1 CarTime	Class 2 CarTime	Class 1 & 2 CarTime Combined	Crime	Accidents	Crime and Accidents Combined
1	38th / Quivas to Lipan	-25.6%	-22.7%	-24.0%	-79.3%	-36.8%	-62.5%
1	Colfax / Sheridan to Irving	-22.0%	14.9%	-10.1%	0.9%	-25.0%	-7.7%
1	Colfax / Speer / Santa Fe	3.3%	45.1%	22.2%	7.6%	12.5%	10.1%
1	Federal / 51st to 47th	-44.6%	18.1%	-21.6%	-47.1%	-42.9%	-44.7%
1	Federal and 10th	-10.0%	26.7%	4.0%	8.0%	11.0%	9.8%
1	Highlands	11.7%	24.0%	18.8%	-40.0%	3.1%	-26.5%
2	Colfax / Josephine	-6.3%	-0.5%	-3.6%	-0.7%	-18.8%	-7.9%
2	Colfax / Spruce to Yosemite	10.8%	21.6%	15.2%	26.3%	-14.3%	15.4%
2	Colorado / 16th to 7th	5.1%	-23.3%	-1.8%	50.0%	-50.7%	-24.2%
2	Downing to Champa / MLK to 25th	-19.4%	6.5%	-5.0%	-25.7%	25.0%	-18.2%
2	Walnut to Arapahoe / Downing to 26th	9.1%	55.0%	28.8%	-13.3%	-6.2%	-12.9%
3	Broadway and Lincoln / Speer to Alameda	-2.4%	22.0%	6.2%	-19.0%	0.7%	-9.0%
3	Colorado / Mississippi to Evans	-12.2%	8.5%	-7.3%	-26.0%	2.1%	-6.0%
3	Hampden / I-25 to Tamarac	7.1%	157.4%	39.9%	-10.0%	-27.1%	-21.0%
3	Leetsdale	-1.2%	-14.5%	-6.0%	-35.1%	25.4%	3.8%
3	University to Steel / 1st to 3rd	-9.9%	-3.4%	-8.3%	15.1%	-35.9%	-17.6%
4	Alameda / King to Tejon	8.1%	-1.8%	2.9%	-56.0%	-16.5%	-39.4%
4	Federal / Kentucky to Jewell	13.6%	33.2%	22.5%	-1.8%	-20.9%	-15.2%
4	Mississippi / Zuni to Lipan	-9.7%	-23.3%	-14.1%	-38.2%	-57.1%	-41.5%
4	Morrison and Kentucky	1.4%	96.8%	40.6%	-22.7%	-17.2%	-21.4%
4	Sheridan / Kenyon to Columbia	-0.5%	62.7%	11.2%	-30.8%	-37.9%	-34.5%
5	Peoria and Albrook	7.7%	-3.5%	0.1%	-19.4%	-21.7%	-20.8%
5	Quebec / 41st to 28th	20.0%	169.2%	60.9%	-8.2%	17.6%	7.3%
6	17th to 14th / Tremont to Walnut	10.3%	49.3%	36.8%	-19.0%	-25.0%	-20.1%
6	Arapahoe to Wazee / 18th to 24th	24.6%	49.0%	38.1%	5.2%	-18.8%	0.5%
6	Broadway and Lincoln / 17th to 10th	-2.3%	21.7%	11.3%	-5.7%	-22.9%	-11.3%
6	Colfax / Logan to High	8.3%	38.5%	21.4%	-0.9%	35.1%	10.6%

## Moving Forward

### **What's working?**

Officer activity and visibility at certain locations and times is far from the only variable that impacts crime and accident rates. That said, the overall decrease in crime and accidents within DDACTS areas and times while the city as a whole continues to experience an increase in crime and accidents, suggests that the additional officer attention that is being applied to the DDACTS areas, is having a positive impact. When considering individual DDACTS areas, the impacts are less clear. For example, 38<sup>th</sup>/Quivas to Lipan in District 1 had big reductions in officer activity but also big reductions in crime and accidents. The amount of crime and accidents in an area is directly related to the amount of officer time there, as officers have to respond to those calls, but in the example of 38<sup>th</sup>/Quivas to Lipan there is still a big decrease in class 2 officer activity. Perhaps the active year was an anomaly for this area, or the reality on the ground has significantly shifted, for example: big population shifts, various businesses opening or closing, large infrastructure projects, etc. A more in-depth consideration of this DDACTS area, as well as several others, might be helpful before committing more DDACTS resources to the area when it may not actually be a good candidate for the DDACTS strategy.

### **Considerations for possible DDACTS area changes:**

Because we are seeing positive impacts from our current strategy it is not imperative to make changes based on outcomes. DDACTS is a long-term strategy and more time means more opportunities to see its effects. However, here are some possible alteration to consider:

- Look into DDACTS areas where the expected outcomes (increased office activity and decreased crime and accidents) are not present. What else might be happening? Perhaps the area is not a good candidate for the DDACTS strategy or an implementation change should be adopted.
- Shrink some of the larger DDACTS areas, specifically the two areas within District 6 Sector 1 and the two areas within Precinct 211. All four of these areas cover 30 square blocks or more each. While chronic crime and accidents do exist within the entirety of these areas, a too-large area is counter to the primary DDACTS impacts, which come from highly focused and visible patrol efforts.
- Align DDACTS areas to match other pre-existing focus areas. The DDACTS area that encompasses the 16<sup>th</sup> Street Mall would be a great candidate. The current DDACTS area is already too large, perhaps it can be changed to match or closely match the Walking the Beat area.
- How are the districts coping? Twenty-seven is a lot of DDACTS areas, is that number sustainable?
- Are there different areas that should be identified as DDACTS areas? Crime and accidents have certainly not been eradicated from the DDACTS areas; as a whole, they still capture a large proportion of the city's incidents. However, if some areas are discontinued because they are not or are no longer good candidates for the DDACTS strategy, should other areas be adopted in their place?