

Organizational Study of the Saint Paul Police Department

Researched & Written by Commander Jack Serier



Saint Paul
Police Department



Organizational Study of the Saint Paul Police Department

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Presentation Content

- Background of how study began
- Design methodology
- Findings & Recommendations
 - *Patrol Operations*
 - *Investigations*
 - *Other staff areas*
- Process changes



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Organizational Study of the Saint Paul Police Department

- 11 month project
- Provided open access to all information and department personnel
- Inductive research model that examined data from the following sources:
 - RMS Data
 - CAD Data
 - Scheduling Data
 - Human Resource Information
 - Crime Mapping
 - Qualitative Interviews



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Snap Shot of What I Will Cover Today

- Victim advocacy approach to services provided to the community.
- Policy Changes for Priority 2 Call Procedures in Patrol.
- Increase Patrol staffing by 6.5% to close gap in service for Priority 2 Calls for Service.
- Elimination of 2 investigative units.
- Equip investigative units with 33 new investigators and 3 officers to provide adequate services to victims of crime.
- Re-organization of Homicide Unit workload into several units.
- Add Criminal Intelligence Unit as a fusion center for information to improve effectiveness of entire department.
- 25.5 new civilian employees to address gaps in current service levels and moves 8 sworn staff to different roles that can only be filled by officers.
- 15 other sworn staff positions to address training and quality of life issues for the community.
- Physical space concerns for the future.

Many Positive Points

- Highly committed staff to serving the people of Saint Paul.
- Adapted to the needs of a changing mental health landscape and created an innovative international model to address this emerging set of issues.
- Involved in community engagement on a department-wide scale.
- Established a national model for recruitment of new diverse staff representative of our community.
- High levels of accountability to our community through our widespread use of in-car cameras and body cams.
- 90% solvability rate of our most serious crimes.
- Proper/adequate level of supervision across department.



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Many Positive Points

- Agency under stress due to:
 - Growing service demands of a growing community.
 - Higher levels of training driven by changes to state statute and public expectations about knowledge and performance by police officers.
 - Technology driven change that is increasing the time needed to perform proper investigations.
 - Increasing workloads that do not allow the workforce to adequately meet current demands.



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Patrol Operations Observations

- Upward trend in Calls for Service for Patrol Officer from the community.
- More training needed for subject matter expertise takes additional time away from Patrol Officers working in direct services to public.
- Current number of Patrol Officers puts additional pressure on scheduling.



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Patrol Operations

Patrol Calls for Service	2013	2014	2015	2016	2017	2018
Total Calls	242,838	236,209	244,767	239,926	269,955	267,145
Total Patrol Officers	228	254	253	269	254	256
Avg. # Calls/Officer	**	**	**	889	1,062	1,043
Avg. Time on a CFS	**	**	**	33.42	29.4	30.42
Min. Spent on CFS	**	**	**	8.018 mil.	7.936 mil.	8.126 mil.

** data errors by +/-5%

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Patrol Operations

- 31.59% increase in 911 calls.
- 10% increase in overall Calls for Service.
- Flat line number of Officers assigned to Patrol Operations since 2014; remaining at 41% of department strength.
- Number of calls per Patrol Officer has increased 17.32% since 2016.



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Patrol Operations

Tour	Officers Assigned to Patrol Tours	Maximum Officers Assigned Per Tour	Minimum Officers Required Per Tour	Officer Loss Factor Per Tour	% Officer Loss Factor Per Tour
Tour I	21	12	8	4	33.33%
Tour II	33	19	13	6	31.58%
Tour III	37	21	13	8	38.10%
Total Staff	91	52	34	18	34.62%

*Total Staff Numbers reflect a 24-Hour Period **Loss factor % is calculated by dividing Officer Loss Factor Per Tour divided by Maximum Officers Assigned Per Tour



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Time Category	Number of Hours
Bereavement	2.54
Comp Time Used	27.11
Leave No Pay	3.42
Paid Parental Leave	7.44
Military Leave-No Pay	18.79
Military Leave with Pay	8.05
Holiday Time	89.47
Injured on Duty	4.97
Sick Child	5.05
Sick Family	11.48
Sick Self	46.94
Vacation	173.37
Workers Comp	6.09
In-Service Training	40
Bomb & SWAT Training	12.88
Total Time	457.6

Time Lost from Patrol Schedule

SPPD Human Resource Data
2018



**22% Average Loss Factor
Per Patrol Officer**

The calculation shows that in a 2,080 hour work year, the average officer is only working 1,622.4 hours in patrol operations. This constitutes a 22% loss factor of time for an average officer in the patrol schedule. Calculated as average time per police officer. These statistics do not include long term light duty positions.

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Time Lost from Patrol Schedule

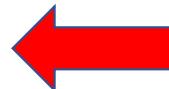
SPPD Human Resource Data
2018



22% Average Loss Factor
Per Patrol Officer

May easily double to 80 hours
per sworn staff member in
near future.

The calculation shows that in a 2,080 hour work year, the average officer is only working 1,622.4 hours in patrol operations. This constitutes a 22% loss factor of time for an average officer in the patrol schedule. Calculated as average time per police officer. These statistics do not include long term light duty positions.



Patrol Operations

Tour	Officers Assigned to Patrol Tours	Maximum Officers Assigned Per Tour	Minimum Officers Required Per Tour	Officer Loss Factor Per Tour	% Officer Loss Factor Per Tour
Tour I	21	12	8	4	33.33%
Tour II	25	14	10	4	28.57%
Tour III	30	17	11	6	35.29%
Total Staff	76	43	29	14	32.56%

258 sworn officers needed to fully staff schedule.

Normal level of sworn officers in Patrol is 230 at the low point of attrition for the year.

Tour	Average Human Resource Data Officer Loss Factor	Officer Loss Factor 2019 Bid (from Table 3.3)	Remainder Percent for Daily Officer Loss Factor	Number of Officers (FTE's) In Remainder Daily Loss Factor
Eastern	-22%	-21.17%	0.83%	0.70
Central	-22%	-20.5%	1.50%	1.23
Western	-22%	-21.95%	0.05%	0.04
Total Staff	-22%	-21.27%	0.73%	1.72

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Patrol Operations

- Keep staffing levels in patrol district operations at full strength (258 Officers).
- The current scheduling system needs 258 officers assigned to West, Central, and East District patrol operations (excluding DTB) to meet its own loss factor requirements.
- Do not count light duty staff as part of the staffing complement.
- If light duty assignments are to be absorbed by the patrol districts, then higher levels of staff should be employed (see section 3.2 for Structural Staffing Reserve).



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Priority 2 Call Problem

- **Priority 2: (Queue Time = within 30 seconds)** Any crime in progress; Activity which indicates a crime is about to be committed or has just been committed where suspects are in the area;



Growth of “Timed Out” Priority 2 Calls 2013-2018

Patrol District	Priority 2 Average % Increase 2013-2018
Western	76.9%
Central	58.9%
Eastern	47%
City Wide	59.57%



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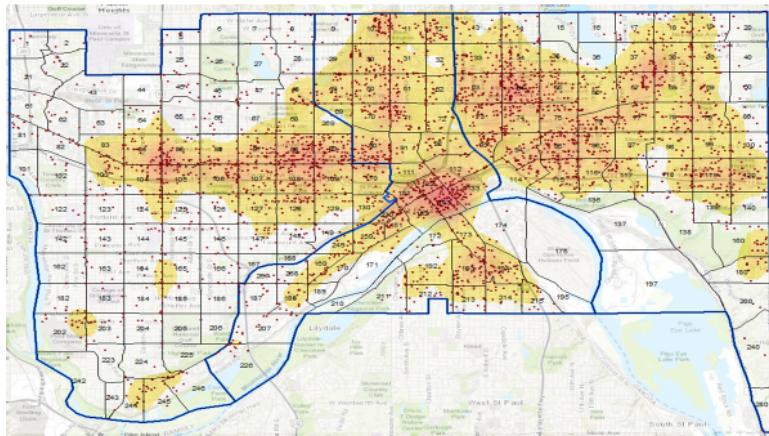
Impact Across City - Including Areas of Concentrated Poverty

(July 2018-June 2019 - 5,169 Calls missed 30 second dispatch)

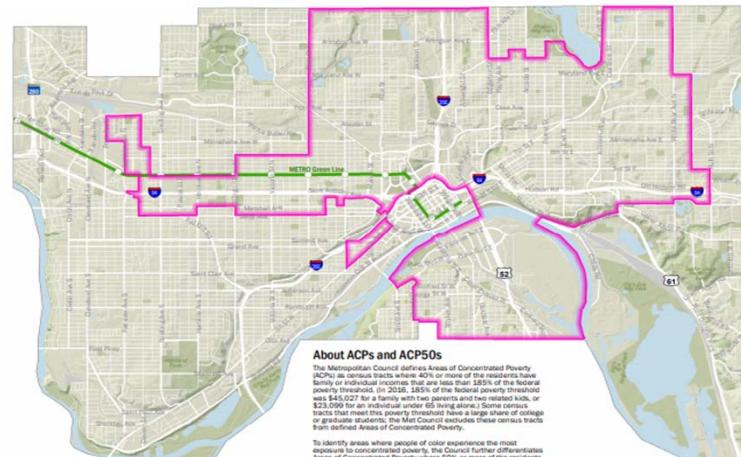
All Timed Out Priority 2 Calls



Total Calls: 5169



Area of Concentrated Poverty



ACP Areas
February 2018

About ACPs and ACP50s
The Metropolitan Council defines Areas of Concentrated Poverty (ACP) as census tracts where 40% or more of the residents have family incomes below the federal poverty threshold. The federal poverty threshold (in 2018) is \$22,181 for a family of four, or \$23,099 for an individual under 65 living alone. Some census tracts have a higher percentage of poverty, but a large share of college or graduate students; the Met Council excludes these census tracts from defined Areas of Concentrated Poverty.

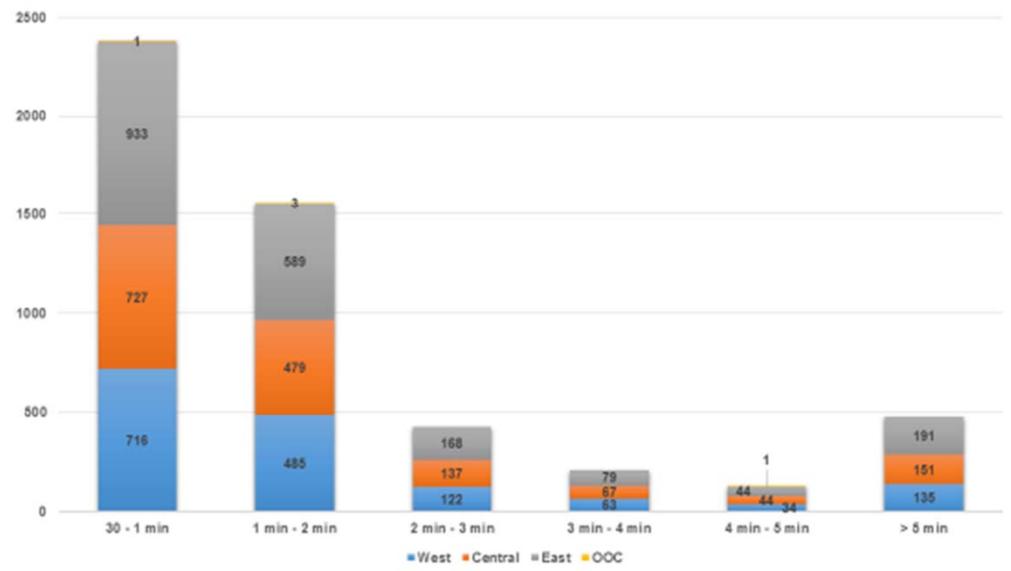
To identify areas where people of color experience the most significant barriers to opportunity, the Met Council also defines Areas of Concentrated Poverty where 50% or more of the residents are people of color (ACP50).

The Met Council updates the geography of these areas every year in the late winter. This map shows ACP areas. A companion map shows ACP50 areas. The most recent ACP and ACP50 maps are available from the Research & GIS Team in Planning & Economic Development.

0 0.5 1 2 Miles

Statistical Period:
July 2018-June 2019

Priority 2 Timed Out Calls



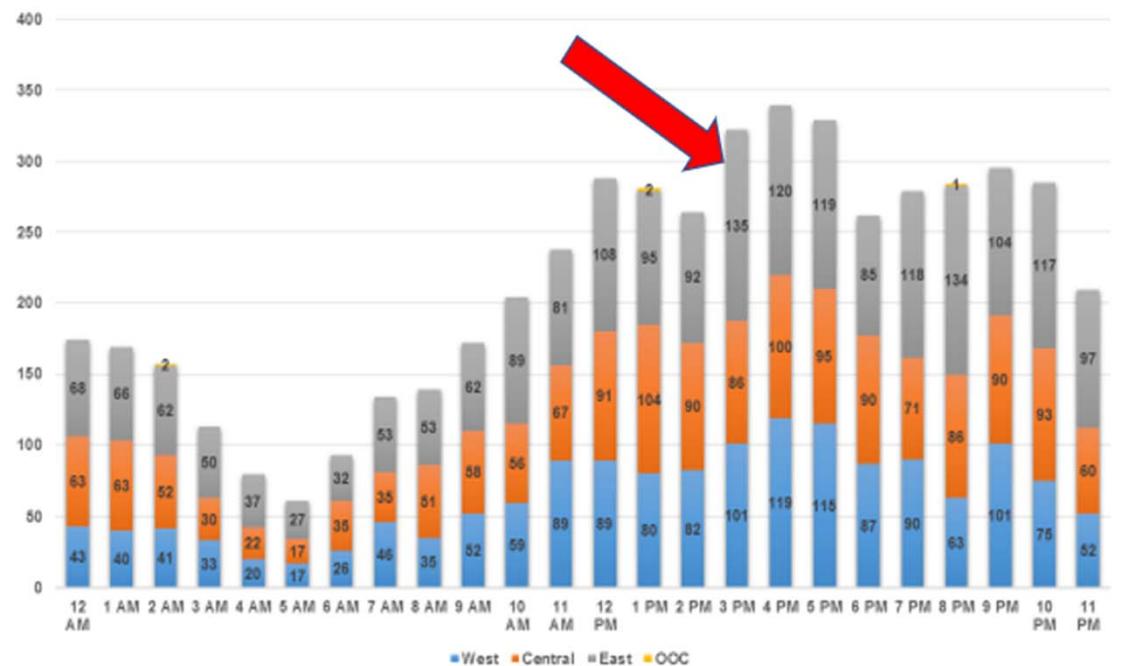
Statistical Period:
July 2018-June 2019

Highest missed P2 calls in
any 1-hour period: 135

Priority 2 Timed Out Calls by Time of Day



Total Calls: 5169



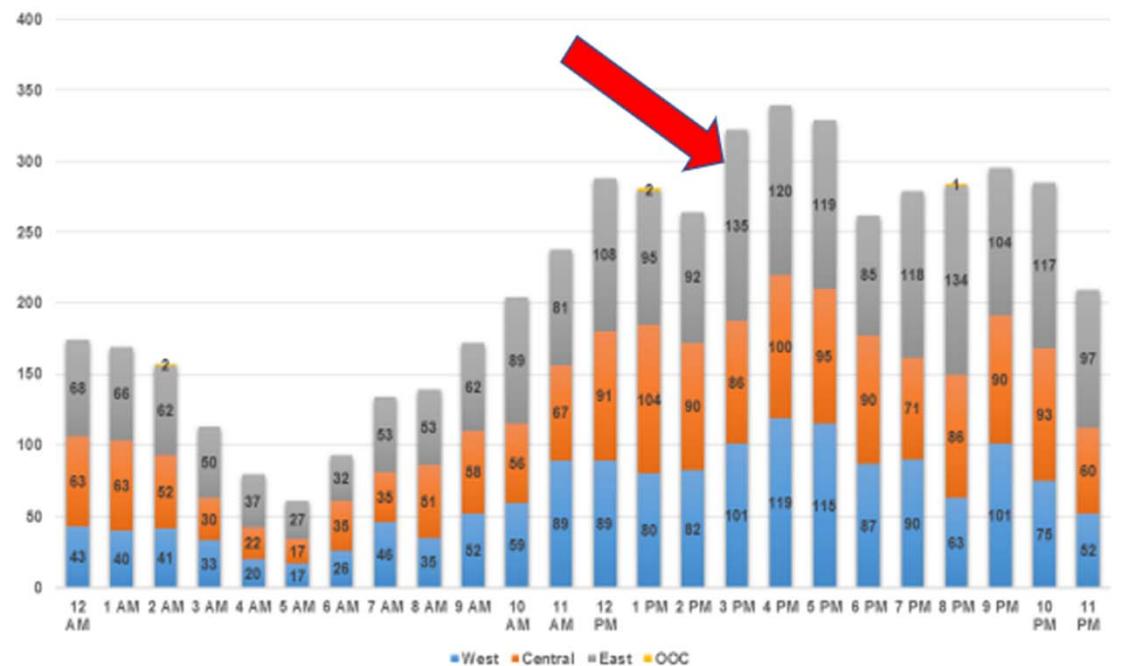
Statistical Period:
July 2018-June 2019

- Less than 1 call/hour per district being missed.
- Add 1 officer per shift.
- Last officer available only for Priority 2 Calls.

Priority 2 Timed Out Calls by Time of Day



Total Calls: 5169



Model Patrol Schedule Calculations

Calculations for Patrol District FTE's Summer 2019

Central District (see below for calculations)						
Tour	FTE's Assigned Per Tour	FTE's Scheduled Per Day Per Tour	Acceptable FTE Loss Per Day	Acceptable FTE Minimum	Math to Minimum	Raw Math Minimum
Tour I	21	12	4	8	$(21/7)(4)=12$	12
Tour II	25	14	4	$(9+1)=10$	$(25/7)(4)=14$	14.285
Tour III	30	17	6	11	$(30/7)(4)=17$	17.143
Total	76	43	14	29		
East District						
Tour	FTE's Assigned Per Tour	FTE's Scheduled Per Day Per Tour	Acceptable FTE Loss Per Day	Acceptable FTE Minimum	Math to Minimum	Raw Math Minimum
Tour I	21	12	4	8	$(21/7)(4)=12$	12
Tour II	33	19	6	$(12+1)=13$	$(33/7)(4)=19$	18.857
Tour III	37	21	8	13	$(37/7)(4)=21$	21.142
Total	91	52	18	34		
West District						
Tour	FTE's Assigned Per Tour	FTE's Scheduled Per Day Per Tour	Acceptable FTE Loss Per Day	Acceptable FTE Minimum	Math to Minimum	Raw Math Minimum
Tour I	21	12	4	8	$(21/7)(4)=12$	12
Tour II	33	19	6	$(12+1)=13$	$(33/7)(4)=19$	18.857
Tour III	37	21	8	13	$(37/7)(4)=21$	21.142
Total	91	52	18	34		

Patrol Schedule Adding One (1) Officer Per Tour

Calculations for Patrol District FTE's - Staffing Study 2019

Central District (see below for calculations)						
Tour	FTE's Assigned Per Tour	FTE's Scheduled Per Day Per Tour	Acceptable FTE Loss Per Day	Acceptable FTE Minimum	Math to Minimum	Raw Math Minimum
Tour I	23	13	4	9	$(23/7)(4)=13$	13.142
Tour II	27	15	4	$(10+1)=11$	$(27/7)(4)=15$	15.428
Tour III	32	18	6	12	$(32/7)(4)=18$	18.285
Total	82	46	14	32		
East District						
Tour	FTE's Assigned Per Tour	FTE's Scheduled Per Day Per Tour	Acceptable FTE Loss Per Day	Acceptable FTE Minimum	Math to Minimum	Raw Math Minimum
Tour I	23	13	4	9	$(23/7)(4)=13$	13.142
Tour II	35	20	6	$(13+1)=14$	$(35/7)(4)=20$	20
Tour III	39	22	8	14	$(39/7)(4)=22$	22.285
Total	97	55	18	37		
West District						
Tour	FTE's Assigned Per Tour	FTE's Scheduled Per Day Per Tour	Acceptable FTE Loss Per Day	Acceptable FTE Minimum	Math to Minimum	Raw Math Minimum
Tour I	23	13	4	9	$(23/7)(4)=13$	13.142
Tour II	35	20	6	$(13+1)=14$	$(35/7)(4)=20$	20
Tour III	39	22	8	14	$(39/7)(4)=22$	22.285
Total	97	55	18	37		

P2 Calls for Service Strategic Recommendations

To correct the problems of Priority 2 response times and provide a higher level of service for the community, this study proposes the following strategic recommendations:

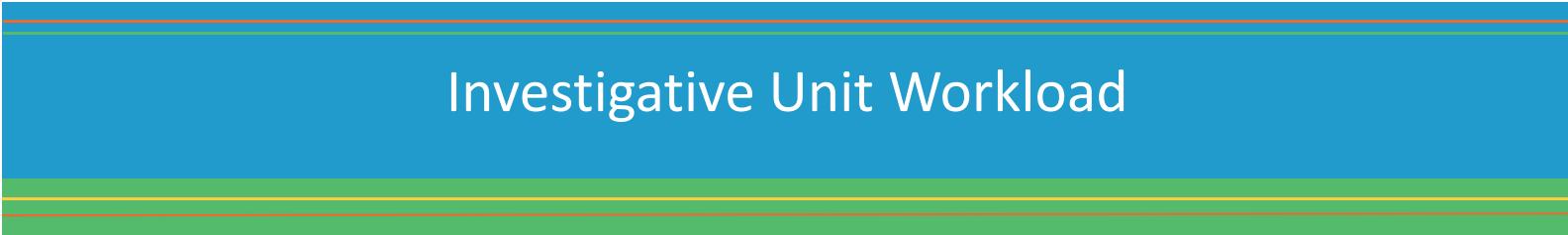
- Continue RCECC policy of breaking Officers away to Priority 2 calls that are “timing-out.”
- Change Patrol policy so last available Officer in district does not engage in any activity unless necessary.
- Change dispatch policy to last available Officer in Patrol District is only dispatched to Priority 2 calls and breaks Officer on low priority call to assist.
- Fully staff the general patrol function of the three (3) patrol districts at 258 – with no light duty counted.
- Increase the number of Officers assigned to each Tour in each patrol district by three (3) Officers. This will add one (1) Police Officer to the mandatory minimum number of Officers assigned to each shift in each patrol district and keep minimum acceptable personnel loss factor at the same rate. **Bringing the number of additional Patrol Officers to 27.**

Investigative Unit Workload

- 15 different investigative units currently.
- Elimination of 2 investigative units (Special Investigations & FORCE).
- Split Robbery/Homicide duties into 4 sections/2 units.
- Expand Gang Unit afternoon shift to 7 days per week.
- Increase the size of the Sex Crimes Unit and create a Child Abuse investigations unit.
- Add Criminal Intelligence Unit.
- Other minor additions to high volume investigative units.



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Investigative Unit Workload

- Average Investigator can manage 25-40 cases at any time.
- Between 35-40 cases there is diminishing effectiveness in investigations.
- Some units depart from this workload statistical model: Homicide & Family Violence.

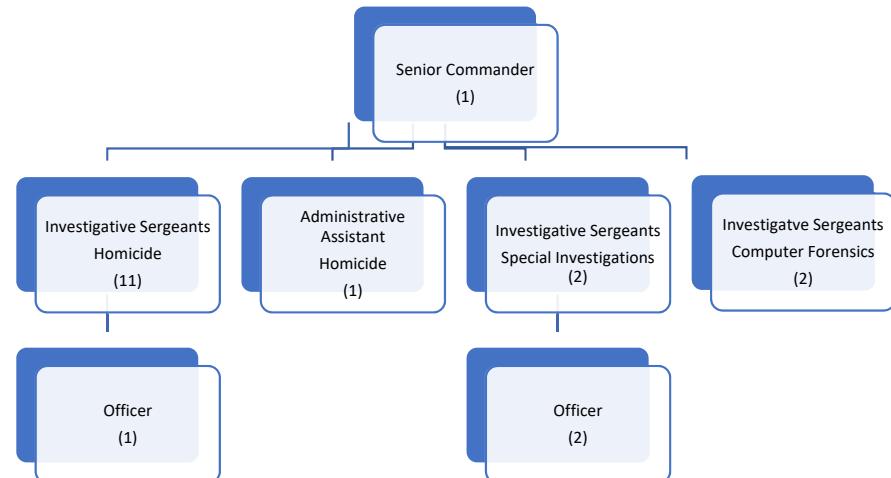
*Recommended case range originates from the **New Cases Equation** formula found on p. 111

Current Homicide Unit Configuration

Crime Types Assigned to Robbery/Homicide

Kidnapping
Impersonations of a peace officer
Abduction
Suicide attempts
Riot
Bigamy
Coercion
Assaults on SPPD personnel
Death investigations including homicide, suspicious, suicide and child deaths
Critical Incidents
Robbery
Cold Cases
Harassment, stalking and terroristic threats (non-domestic)
Unlawful possession of tear gas and/or electronic control devices
Drive-by shootings Unlawful possession of bullet proof vest
Obstruction of Legal Process
All non-domestic assaults

Homicide Unit Structure



Homicide Unit Workload

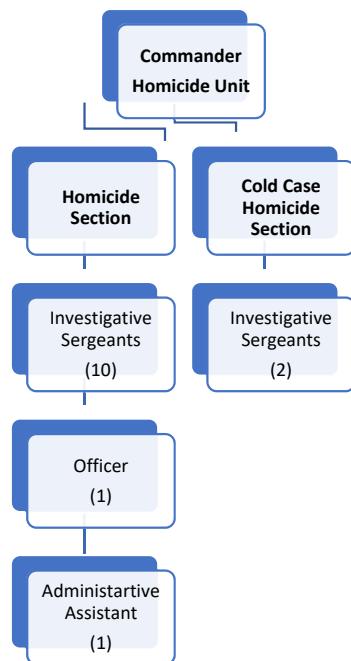
Homicide/Robbery	2013	2014	2015	2016	2017	2018
Total # of Cases	3,446	3,244	3,519	2,993	2,530	2,340
Avg. Case Time (days) Closed Cases	51	38	40	38	53	84
# of Cases Per Investigator/Year	344.6	360.4	352	299.3	230	212.7
Recommended Case Range Per Investigator	64-86	62-82	82-110	86-115	62-82	40-55

Homicide Unit

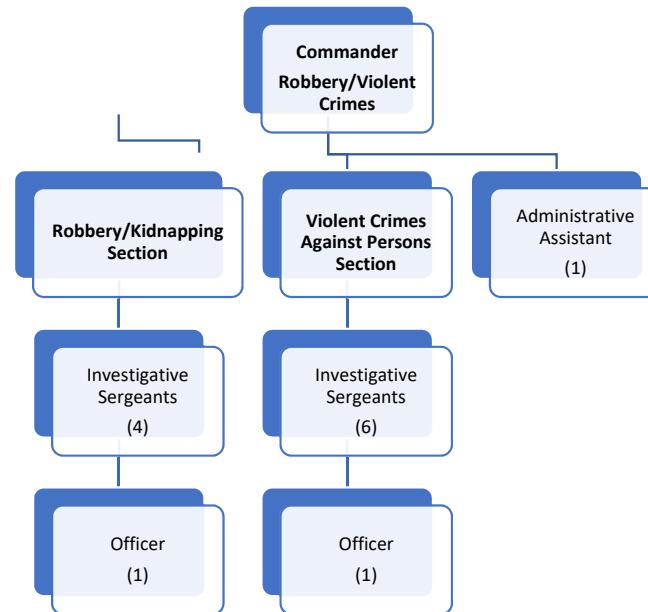
- Each Homicide investigator should only have 3-4 homicides per year assigned to them as part of a two-person team; and 12-15 other death investigations at any-one time.
- Remove all non-death related investigations from the Homicide Unit workload.
- Add three (3) additional investigative sections to relieve the high workload level of the Homicide Unit.

Investigator Additions to Relieve Homicide Unit Workload

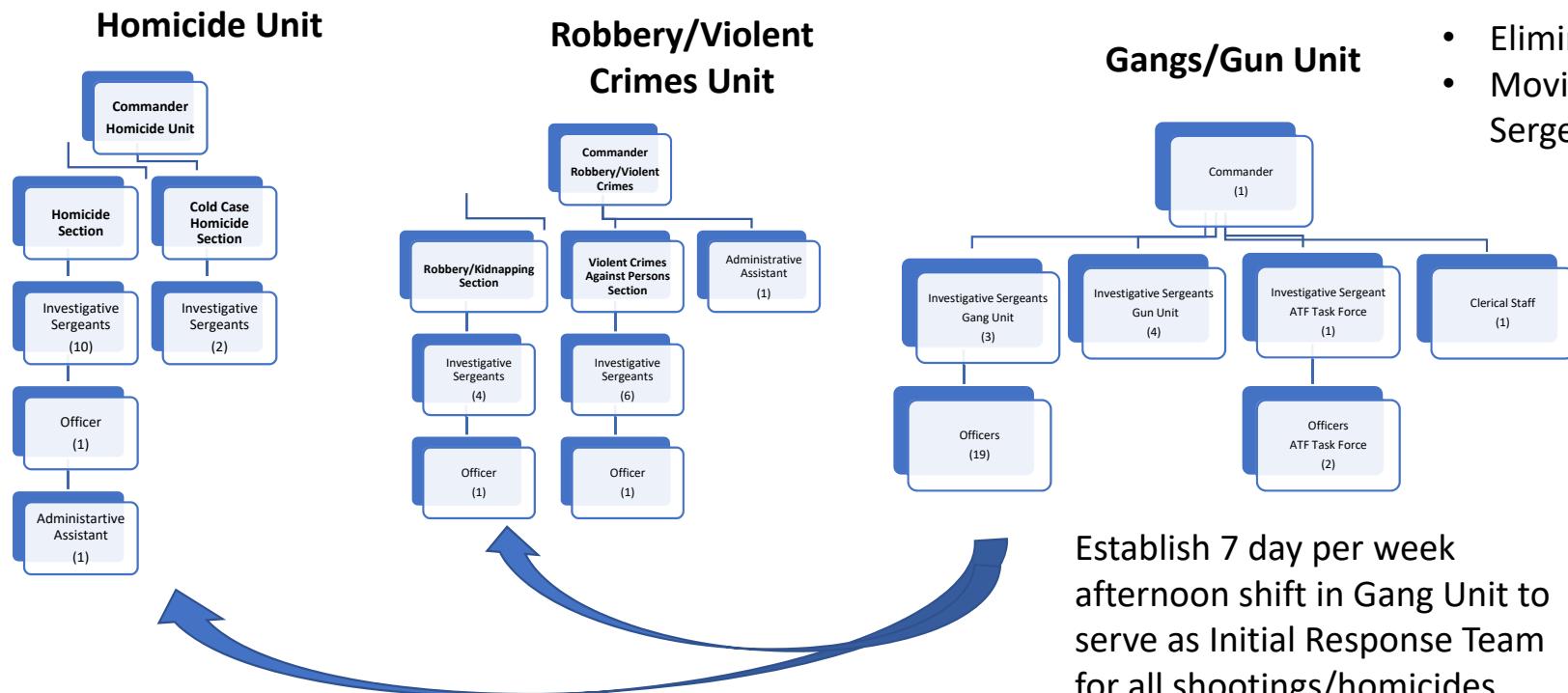
Homicide Unit



Robbery/Violent Crimes Unit



Process Change/Investigator Additions to Improve Solvability Factors & Relieve Patrol District Workload



Sex Crimes Unit

Sex Crimes	2013	2014	2015	2016	2017	2018
Total # of Cases	1830	1724	1740	1742	1739	1901
# of Cases Per Investigator	261	215	217	290	348	237
Avg. Case Time (days) Closed Cases	61	85	83	84	87	115
Recommended Range of Cases Per Investigator Per Year	150-239	107-172	110-176	109-174	105-167	79-127
Cleared by Arrest	195	180	202	217	218	271
Declined	109	135	79	118	110	198
Noted	261	342	351	333	330	258
Other/Unk.	1	6	8	9	1	12
Unfounded	41	28	22	6	20	56
Recovered Property	0	1	1	0	0	1
Exceptional Clearance	1	1	2	1	3	49
Pended	578	468	398	412	475	288
TOT Other Agency	644	563	677	645	581	768
Adults Booked for Crime	177	222	149	134	156	162
Adults Cited for Crime	20	11	8	3	5	11
Juvenile Arrested Not Booked	2	0	2	3	0	0
Juvenile Booked at JDC	10	10	4	5	1	0

- Sex Crimes investigators are handling over 100 cases more than recommended.
- 300-350 Child Abuse reviews are done each month that are not part of current statistics.
- Unit is overwhelmed with work on behalf of adult and child victims in our community.

Expansion of Sex Crimes Staff

- **Add eight (8) Sergeant Investigators** to Sex Crimes to allow for caseloads to be aligned with the optimal average caseload level.
- **Add two (2) Officer** positions to the Predatory Offender Registration (POR) program within the Sex Crimes Unit.



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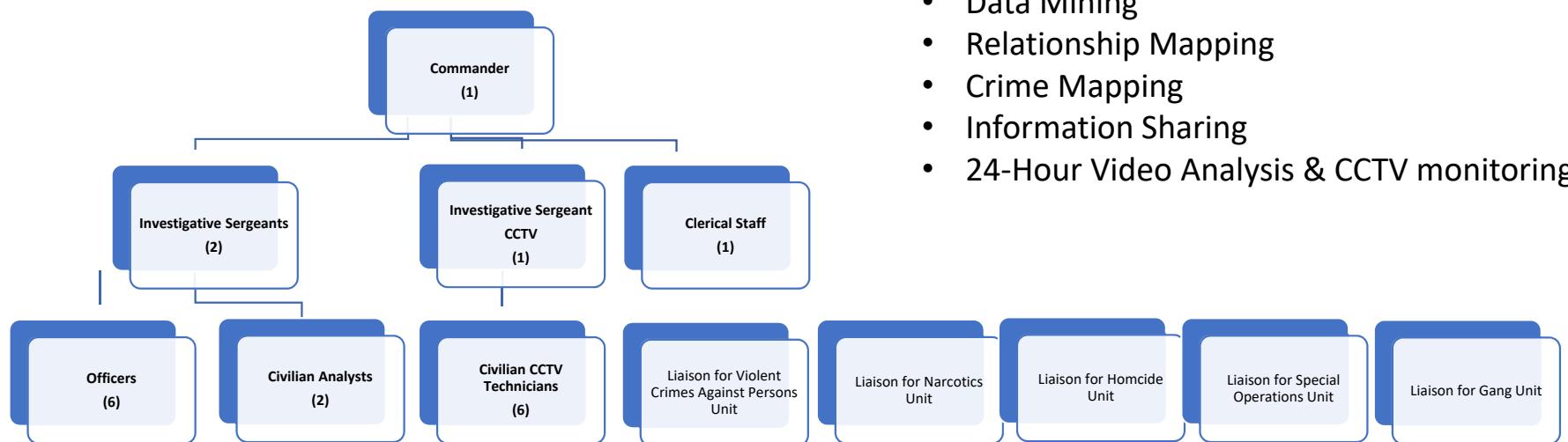
Addition of Child Abuse Unit

- A **Child Abuse Investigations Unit** should be established to review and investigate the current number of at least 3,600 Child Abuse cases being sent to the SPPD for review each year. **The unit should consist of the following staffing model:**
 - 1 Commander
 - 4 Sergeant Investigators (Child Abuse Investigations Only)
 - 1 or 2 Sergeant Investigators for Internet Crimes Against Children (ICAC) investigations (*see recommendations for ICAC in Section 7.5)
 - 1 Office Assistant



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Creation of Criminal Intelligence Unit



Unit will address department-wide needs for:

- Criminal Intelligence Development
- Data Mining
- Relationship Mapping
- Crime Mapping
- Information Sharing
- 24-Hour Video Analysis & CCTV monitoring

Director of Strategic Criminal Intelligence and Investigations

Establish a Senior Commander level position to supervise five (5) units of the Major Crimes Division:

- **Homicide**
- **Robbery/Kidnapping**
- **Violent Crimes Against Persons**
- **Gangs/Gun Unit**
- **Criminal Intelligence Unit**

- Dedicated to managing the cycle of complex investigations involving multiple units.
- A direct contact with community members and groups who have concerns or the ability to connect information to investigative units about cases being investigated.



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Director of Strategic Criminal Intelligence and Investigations

- Work to avoid the potential and real phenomena of organizational silos that are often inadvertently created.
- More direct oversight at the administrative level to ensure multiple unit resources are being properly distributed in emerging or long-term crime problems.



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Other Sworn Staffing Recommendations

- 2 officers to each Patrol District Code Enforcement Team (East, Central, & West).
- 7 sergeant investigators across all District investigative units (East, Central, & West).
- 3 officers to investigative units that assist with victim advocacy.
- 4 sworn staff to Training Unit for less lethal training and year round academy staffing.
- 1 additional sergeant to ODU.



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Other Non-Sworn Staffing

- 6.5 Office Assistants
- 6 Video Technicians
- 2 Civilian Crime Analysts
- 2 Custodian Engineer II
- 1 Civilian PIO.
- 1 Technology Manager
- 1 Technology Project Mgr.
- 1 Crime Prevention Specialist
- 1 Review Officer (Records Unit)
- 1 Grant Coordinator.
- 1 Fleet Manager
- 1 Fleet assistant
- 1 Quality Assurance Manager (FSU)

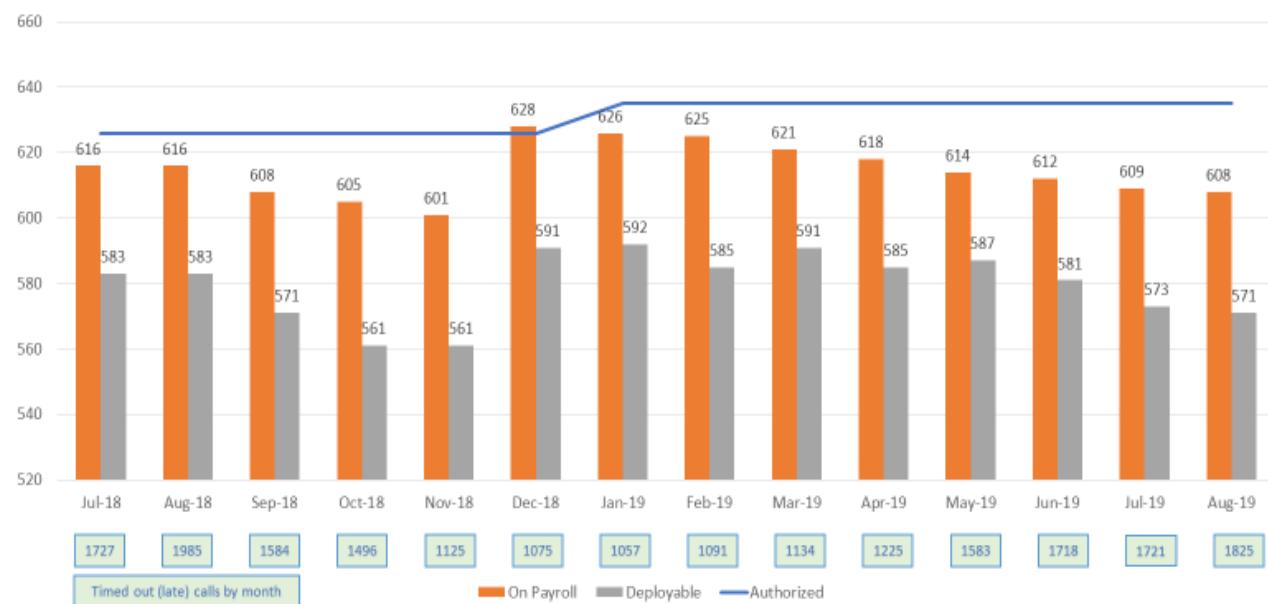


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Problems in Maintaining Full Sworn Staffing Levels

Sworn Staffing Information

Sworn Staffing Information



Source: SPPD Human Resources Database

Problems in Maintaining High Levels of Staffing

- 2 academies per year to avoid mid-year low staffing levels.
- Move current sworn staff out of roles that can be done using non-sworn staff.
- Move to a Structural Staffing Ratio (SSR) model to maintain authorized strength.
 - Reasons for loss: Military deployment, family leave, medical leave, etc.
 - In 2019, 38 members of the department were on leave, severely hampering staffing levels.

Structural Staffing Ratio

Authorized Strength	630
Average Actual Hired	608
Average # on Long-Term Leave	38
Average Active Working Strength	570

Using these numbers, the following personnel loss calculation applies:

$$608 - 38 = 570 \text{ Sworn Staff}$$

$$6.25 \% \text{ Loss Factor}$$

If the SPPD were at full-strength for hiring, at 630 sworn staff, the loss factor would be:

$$630 * 6.25\% = 39.375 (39) \text{ Sworn Staff}$$



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Structural Staffing Ratio

Authorized Strength	630
Average Actual Hired	608
Average # on Long-Term Leave	38
Average Active Working Strength	570

The average of 38 employees on long-term leave in 2019 would become the Structural Staff Reserve (SSR) added to the number of sworn staff the SPPD would be able to hire in 2020, as shown below:

Authorized Strength: 630

SSR: 38

Total Authorized Sworn: 668



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Process Changes

- Create decision matrix for investigative units to uniformly handle case progression and clearance.
- Automated/electronic notification system for quick notification to victims of closed cases without solvability factors.
- Expand training opportunities for supervisors/investigators through annual training curricula.
- Consult with work-space architect to maximize current work spaces; plan additional space.



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Thank You

Thank you to Chief Todd Axtell for the opportunity to work on this project and contribute to the body of knowledge about the Saint Paul Police Department and how it can benefit the residents of the city of Saint Paul. Additionally, I want to thank the members of the Saint Paul Police Department who contributed their time, expertise, and insights into the work they care so much about that holds offenders accountable, acts on the behalf of victims, and works to better the community each day.



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Study Author Biography

Jack Serier is the primary researcher and author of this study. Jack currently holds the rank of Police Commander at the Saint Paul Police Department and has served as a law enforcement officer for 29 years. He previously served in the Stillwater and Eagan departments and rose to the rank of Commander at Saint Paul before working as an administrator at the Ramsey County Sheriff's Office and serving as Sheriff of Ramsey County.

Jack holds a B.A. from Hamline University and earned master's degree and a doctoral degree in Leadership, Policy and Administration from the University of Saint Thomas. He is also a graduate of the FBI National Academy in Quantico, Virginia.

Commander Serier continues to teach ethics and leadership as an assistant professor at Saint Mary's University, adjunct faculty at the University of Saint Thomas, and as an instructor for the Minnesota Bureau of Criminal Apprehension's management program. He also serves on the board of the Northeast Youth and Family Services and the President's Council for Northern Star Scouting. Jack is an Eagle Scout and served in Scouting as an adult leader for many years.