



# TROY CITY COUNCIL

## SPECIAL MEETING AGENDA

**MARCH 21, 2011  
CONVENING AT 6:30 PM  
COUNCIL BOARDROOM**

**PERMITTED BY RESOLUTION #2011-02-054  
FOR THE PURPOSE OF PUBLIC HEARING ON THE ALTERNATIVE ENERGY PERSONAL  
PROPERTY EXEMPTIONS APPROVED BY THE MICHIGAN NEXTENERGY AUTHORITY  
FOR: UNITED SOLAR OVOVIC CORP. AND LG CHEM POWER; AND THE PURPOSE  
OF PRESENTATION AND DISCUSSION OF THE POLICE DEPARTMENT ELEMENT OF  
ICMA'S ORGANIZATIONAL RESTRUCTURING REPORT**

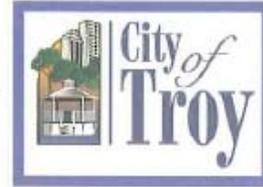
**Submitted By  
The City Manager**

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***NOTICE: Persons with disabilities needing accommodations for effective participation in this meeting should contact the City Clerk at (248) 524-3316 or via e-mail at [clerk@troymi.gov](mailto:clerk@troymi.gov) at least two working days in advance of the meeting. An attempt will be made to make reasonable accommodations.***

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TO: The Honorable Mayor and City Council  
Troy, Michigan

FROM: John Szerlag, City Manager

SUBJECT: Background Information and Reports

Ladies and Gentlemen:

This booklet provides a summary of the many reports, communications and recommendations that accompany your Agenda. Also included are suggested or requested resolutions and/or ordinances for your consideration and possible amendment and adoption.

Supporting materials transmitted with this Agenda have been prepared by department directors and staff members. I am indebted to them for their efforts to provide insight and professional advice for your consideration.

As always, we are happy to provide such added information as your deliberations may require.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "John Szerlag". The signature is fluid and cursive.

John Szerlag, City Manager

# Troy City Council

## Vision Statement and Goals

Monday, February 7, 2011

### **Vision:**

To honor the legacy of the past and build a strong, vibrant future and be an attractive place to live, work, and grow a business.

### **Goals:**

#### **Provide a safe, clean, and livable city**

- Practice good stewardship of infrastructure
- Maintain high quality professional community oriented police and fire protection
- Conserve resources in an environmentally responsible manner
- Encourage development toward a walkable, livable community

#### **Provide effective and efficient local government**

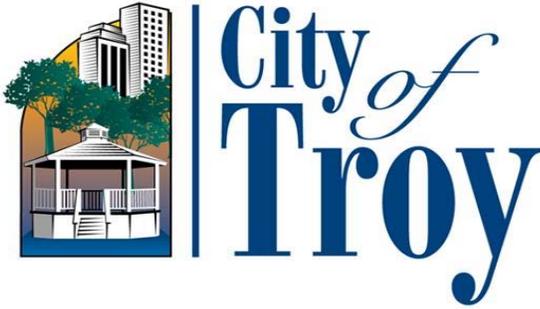
- Demonstrate excellence in community services
- Maintain fiscally sustainable government
- Attract and support a committed and innovative workforce
- Develop and maintain efficiencies with internal and external partners
- Conduct city business and engage in public policy formation in a clear and transparent manner

#### **Build a sense of community**

- Communicate internally and externally in a timely and accurate manner
- Develop platforms for transparent, deliberative and meaningful community conversations
- Involve all stakeholders in communication and engagement activities
- Encourage volunteerism and new methods for community involvement
- Implement the connectedness of community outlines in the Master Plan 2008

#### **Attract and retain business investment**

- Clearly articulate an economic development plan
  - Create an inclusive, entrepreneurial culture internally and externally
  - Clarify, reduce and streamline investment hurdles
  - Consistently enhance the synergy between existing businesses and growing economic sectors
  - Market the advantages of living and working in Troy through partnerships
-



**TROY CITY COUNCIL  
SPECIAL MEETING  
AGENDA  
March 21, 2011 – 6:30 PM  
Council Boardroom  
City Hall - 500 West Big Beaver  
Troy, Michigan 48084  
(248) 524-3317**

<b>A.</b>	<b><u>CALL TO ORDER:</u></b>	<b><u>1</u></b>
<b>B.</b>	<b><u>ROLL CALL:</u></b>	<b><u>1</u></b>
<b>C.</b>	<b><u>DISCUSSION ITEMS:</u></b>	<b><u>1</u></b>
C-1	Public Hearing: Michigan NextEnergy Exemptions - United Solar Ovonic Corp. (1100 W. Maple) and LG Chem Power (1857 Technology)	1
C-2	Review of the ICMA Report Part II	2
<b>D.</b>	<b><u>PUBLIC COMMENT:</u></b>	<b><u>2</u></b>
<b>E.</b>	<b><u>ADJOURNMENT</u></b>	<b><u>2</u></b>

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**A. CALL TO ORDER:**

**B. ROLL CALL:**

- (a) Mayor Louise E. Schilling
- Robin Beltramini
- Wade Fleming
- Martin Howrylak
- Mayor Pro Tem Mary Kerwin
- Maureen McGinnis
- Dane Slater

- (b) Absent Council Members:

Suggested Resolution

Resolution #2011-03-

Moved by

Seconded by

RESOLVED, That Troy City Council hereby **EXCUSES** the absence of \_\_\_\_\_ at the City Council Special Meeting of Monday, March 21, 2011 due to \_\_\_\_\_.

Yes:

No:

**C. DISCUSSION ITEMS:**

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**C-1 Public Hearing: Michigan NextEnergy Exemptions - United Solar Ovonic Corp. (1100 W. Maple) and LG Chem Power (1857 Technology)**

Suggested Resolution

Resolution #2011-03-

Moved by

Seconded by

RESOLVED, That the Troy City Council hereby **AFFIRMS** the Michigan NextEnergy Exemptions of Alternative Energy Person Property located at 1100 W. Maple, and 1857 Technology Drive, Troy, MI, as certified by the City Assessor, in an amount not to exceed \$3,546,997, a copy of which shall be **ATTACHED** to the original Minutes of this meeting; and

BE IT FURTHER RESOLVED, That the City Clerk of the City of Troy shall **FORWARD** a copy of this resolution and attachments to the Michigan NextEnergy Authority at 3300 N. Washington Square, Lansing, MI 48913.

Yes:

No:

**C-2 Review of the ICMA Report Part II****D. PUBLIC COMMENT:**

**In accordance with the Rules of Procedure of the City Council, Article 16 – Members of the Public and Visitors**

**E. ADJOURNMENT**

Respectfully submitted,



John Szerlag, City Manager

**PUBLIC COMMENT:**

**In accordance with the Rules of Procedure of the City Council, Article 16 – Members of the Public and Visitors**

Any person not a member of the City Council may address the Council with recognition of the Chair, after clearly stating the nature of his/her inquiry or comment. *City Council requests that if you do have a question or concern, to bring it to the attention of the appropriate department(s) whenever possible. If you feel that the matter has not been resolved satisfactorily, you are encouraged to bring it to the attention of the City Manager, and if still not resolved satisfactorily, to the Mayor and Council.*

- Petitioners shall be given a fifteen (15) minute presentation time that may be extended with the majority consent of City Council.
- Any member of the public, not a petitioner of an item, shall be allowed to speak for up to five (5) minutes to address any Public Hearing item.
- Any member of the public, not a petitioner of an item, shall be allowed to speak for up to five minutes to address Postponed, Regular Business or Consent Agenda items or any other item as permitted under the Open Meetings Act during the Public Comment portion of the agenda.
- City Council may waive the requirements of this section by a majority of the City Council members.
- City Council may wish to schedule a Special Meeting for Agenda items that are related to topics where there is significant public input anticipated.
- Through a request of the Chair and a majority vote of City Council, public Comment may be limited when there are fifteen (15) or more people signed up to speak either on a Public Hearing item or for the Public Comment period of the agenda.



## CITY COUNCIL ACTION REPORT

February 8, 2011

TO: John Szerlag, City Manager

FROM: John M. Lamerato, Assistant City Manager-Finance/Administration  
Nino Licari, City Assessor

SUBJECT: Agenda Item – Public Hearing – Michigan NextEnergy Exemptions

### Background:

- The Michigan Next Energy Authority (MNEA) was created by Public Act 549 of 2002. The Authority is charged with certifying alternative energy businesses, and alternative energy Personal Property.

Under provisions of the Act, alternative energy Personal Property (as certified by the local Assessor) purchased between 2002 and 2011 (since amended to extend to 2013) may be exempt from taxation through the process of eliminating all, or some, of the millages levied against its Taxable Value.

The Act provides that the local taxing authorities may 'opt out' of the exemption process by failure to pass a resolution approving the exemption at a public hearing, within sixty (60) days of receipt of the MNEA certifying resolution. (Local taxing authorities include: Transportation Authority, County, Zoo, Intermediate Schools, Community College, City {township, village}, and Local Schools).

Compact Power (now known as LG Chem Power) and United Solar Ovonic Corp. have received certification from MNEA as alternative energy companies. They have current Next Energy exemptions in Troy. They have applied for further exemptions of 2011 Personal Property totaling \$3,546,996.50 in Market Value (\$3,531,996.50 for LG Chem and \$15,000.00 for United).

United Solar Ovonic Corp. is at 1100 W. Maple. Compact Power is at 1857 Technology Drive.

### Financial Considerations:

- As shown on the attached chart, the City of Troy's total exempted taxes for the three (3) years available to the companies is estimated at \$43,682.72, including administration fees. This amounts to \$14,560.91 per year.

These companies have exemptions dating back to the 2005 assessment year. All exempted taxes for the City of Troy, through 2013 now total \$205,494.37. (\$43,682.72 in 2011, \$60,321.36 in 2010; \$19,529.60 in 2009; \$21,573.34 in 2008; \$13,018.96 in 2007; \$35,368.39 in 2006; and \$12,000.00 in 2005).

Legal Considerations:

- There are no legal considerations attached to this item.

Policy Considerations:

- This item is in keeping with City Council Goals:  
*Attract and support a committed and innovative workforce.*  
*Create an inclusive, entrepreneurial culture internally and externally.*  
*Clarify, reduce and streamline investment hurdles.*  
*Consistently enhance the synergy between existing businesses and growing economic sectors.*

Options:

- City Council may continue to participate in the MNEA program by passing the suggested resolution, or City Council may 'opt out' of this exemption process by its failure to pass the suggested resolution.

**City of Troy - Assessing Department  
Estimated NextEnergy Exempted Tax Calculation - 2011**

Taxing Authority	Mills	NO Exempt Taxes 2010	Estimated Exempt Taxes 2011	Estimated Exempt Taxes 2012	Estimated Exempt Taxes 2013	NO Exempt Taxes 2014	Totals
<b>City of TROY</b>	9.4000	0.00	15,503.92	13,953.53	12,558.18	0.00	42,015.63
<b>Admin Fee Troy</b>	0.3898	0.00	2.72	2.45	2.20	0.00	7.37
<b>Admin Fee Warren</b>	0.3729	0.00	612.44	551.20	496.08	0.00	1,659.72
<b>Transportation</b>	0.5900	0.00	973.12	875.81	788.23	0.00	2,637.15
<b>Oakland County</b>	4.6461	0.00	7,663.06	6,896.76	6,207.08	0.00	20,766.90
<b>County Zoo Tax</b>	0.1000	0.00	164.94	148.44	133.60	0.00	446.97
<b>Oakland Intermediate</b>	3.3690	0.00	23.50	21.15	19.03	0.00	63.68
<b>Macomb Intermediate</b>	2.9430	0.00	4,833.52	4,350.17	3,915.15	0.00	13,098.84
<b>Community College</b>	1.5844	0.00	2,613.24	2,351.91	2,116.72	0.00	7,081.87
<b>Troy School Debt</b>	4.7000	0.00	32.78	29.50	26.55	0.00	88.84
<b>Troy Hold Harmless</b>	5.0381	0.00	35.14	31.63	28.46	0.00	95.23
<b>Warren School Debt</b>	2.4400	0.00	4,007.40	3,606.66	3,246.00	0.00	10,860.06
<b>Warren Hold Harmless</b>	6.8226	0.00	11,205.29	10,084.76	9,076.29	0.00	30,366.34
<b>Warren Sinking Fund</b>	0.9964	0.00	1,636.47	1,472.82	1,325.54	0.00	4,434.82
<b>School Operating Troy</b>	0.0000	0.00	0.00	0.00	0.00	0.00	0.00
<b>School Operating Warren</b>	0.0000	0.00	0.00	0.00	0.00	0.00	0.00
<b>State Education</b>	0.0000	0.00	0.00	0.00	0.00	0.00	0.00
<b>Totals by Year</b>		0.00	49,307.54	44,376.79	39,939.11	0.00	133,623.44
<b>Est'd Taxable Value Troy SD</b>	7,500	0	6,975	6,278	5,650	0	
<b>Est'd Taxable Value Warren SD</b>	1,765,999	0	1,642,379	1,478,141	1,330,327	0	
<b>Total Est'd Taxable Value</b>	1,773,499	0	1,649,354	1,484,418	1,335,976	0	
<b>Market Value Exempted Troy</b>	15,000	0	13,950	12,555	11,300	0	
<b>Market Value Exempted Warren</b>	3,531,997	0	3,284,757	2,956,281	2,660,653	0	
<b>Total Market Value Exempted</b>	3,546,997	0	3,298,707	2,968,836	2,671,953	0	
<b>Total Troy Exempted Taxes 3 Years</b>							<u><u>43,682.72</u></u>

02/08/11

**CITY OF TROY**  
**PUBLIC HEARING**

A Public Hearing will be held by and before the City Council of the City of Troy at City Hall, 500 W. Big Beaver, Troy, Michigan on Monday, March 21, 2011 at 6:30 P.M. to consider Alternative Energy Personal Property Exemptions approved by the Michigan NextEnergy Authority for the following two (2) locations in the City of Troy:

T2N, R11E, of Section 28  
1100 W Maple, Troy, Michigan

United Solar Ovonic Corp.

T2N, R11E, of Section 35  
1857 Technology, Troy, Michigan

LG Chem Power.

You may express your comments regarding this matter by writing to this office, or by attending the Public Hearing.

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Tonni Bartholomew, MMC  
City Clerk

**NOTICE:** *People with disabilities needing accommodations for effective participation in this meeting should contact the City Clerk by e-mail at [clerk@ci.troy.mi.us](mailto:clerk@ci.troy.mi.us) or by calling (248) 524-3317 at least two working days in advance of the meeting. An attempt will be made to make reasonable accommodations.*

MACOMB INTERMEDIATE SCHOOLS  
44001 GARFIELD  
CLINTON TWP MI 48038-1100

UNITED SOLAR OVONIC CORP  
1100 W MAPLE  
TROY MI 48084-5352

LG CHEM POWER  
1857 TECHNOLOGY DRIVE  
TROY MI 48083

DAVE HEIBER  
OAKLAND COUNTY EQUALIZATION  
250 ELIZABETH LAKE #1000W  
PONTIAC MI 48231

PATRICK DOHANY  
OAKLAND CO PUBL TRANSPORT'N  
1200 N TELEGRAPH 49W  
PONTIAC MI 48231-0049

OAKLAND INTERMEDIATE SCHOOLS  
2111 PONTIAC LAKE RD  
WATERFORD MI 48328

OAKLAND COMMUNITY COLLEGE  
GEORGE A BEE ADMIN CNTR  
2480 OPDYKE  
BLOOMFIELD HILLS MI 48304-2266

MARK RAJTER  
TROY SCHOOL DISTRICT  
4400 LIVERNOIS  
TROY MI 48098-4799

WARREN CONSOLIDATED SCHOOLS  
31300 ANITA  
WARREN MI 48093-1697

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300 N. WASHINGTON SQ.  
LANSING, MI 48913

517.373.9808

MICHIGANADVANTAGE.ORG



January 13, 2011

Mr. Leger A. Licari, Assessor  
500 West Big Beaver  
Troy, MI 48084

Dear Mr. Licari:

The Michigan NextEnergy Authority (MNEA) is charged by law, Public Act 593 of 2002, with the certification of alternative energy technology businesses and alternative energy personal property, Public Act 549 of 2002. The MNEA is also charged with notifying the assessors and treasurers of the local tax collecting unit and the secretary of the school district, in which the property is located, of the annual certification.

The enclosed resolution, certifying the attached list of personal property of LG Chem Power Inc. as Alternative Energy Personal Property exempt from certain property taxes, was adopted at a meeting of the MNEA held on December 14, 2010. As indicated in the enclosed resolution, the maximum value of the exempted property located in the City of Troy is \$1,511,864 and is subject to the assessor's concurrence.

The City of Troy has sixty days from receipt of this letter in which to adopt a resolution to opt-out of the exemption of the alternative energy personal property from local personal property taxes.

Troy Public Schools also have sixty days from receipt of this letter in which to adopt a resolution to opt out of specific school-related taxes levied against the personal property.

Personal property acquired by LG Chem Power Inc. prior to January 1, 2013 may be eligible for certification as Alternative Energy Personal Property by the MNEA in future years. The City of Troy and Troy Public Schools will be notified of any future certification and will have sixty days in which to adopt a resolution to opt-out of the exemption on that personal property.

If you have questions, please contact Jessica Gomez at 517.241.4810.

Sincerely,

A handwritten signature in black ink that reads "Karla K. Campbell".

Karla K. Campbell  
Secretary to the MNEA Board

Enclosures

**EXECUTIVE COMMITTEE**

MATTHEW P. CULLEN  
Chair  
Rock Enterprises

PHILIP H. POWER  
Vice-Chair  
The Center for Michigan

D. GREGORY MAIN  
President and CEO

JOHN W. BROWN  
Stryker Corporation

DR. DAVID E. COLE  
Center for  
Automotive Research

JOANN CRARY  
Saginaw Future Inc.

DR. HAIFA FAKHOURI  
Arab American and  
Chaldean Council

STEVEN K. HAMP  
Hamp Advisors, LLC

PAUL HILLEGONDS  
DTE Energy Company

GEORGE W. JACKSON JR.  
Detroit Economic  
Growth Corporation

BIRGIT M. KLOHS  
The Right Place, Inc.

F. THOMAS LEWAND  
Bodman LLP

STEVEN LIEDEL  
Office of  
Governor Jennifer Granholm

JEFF METTS  
Dowding Industries, Inc.

STANLEY "SKIP" PRUSS  
Michigan Department of Energy,  
Labor & Economic Growth

DR. IRVIN D. REID  
Wayne State University

SANFORD "SANDY" RING  
Hino Motors  
Manufacturing U.S.A., Inc.

MICHAEL B. STAEBLER  
Pepper Hamilton LLP

TODD A. WYETT  
Versa Development, LLC



**Michigan Next Energy Authority (MNEA)**

**Certificate**

**Resolution 2010-001**

**LG Chem Power Inc.  
Alternative Energy Technology Business Certification - 2010**

I, Karla K. Campbell, Secretary to the MNEA Board, do hereby certify that the attached is a true and complete copy of a resolution adopted by the MNEA board at a meeting on December 14, 2010 and that public notice of said meeting was given pursuant to Act No. 24, Public Acts of Michigan, 1995, including the case of a special or rescheduled regular meeting, or a meeting recessed for more than 36 hours, notice by posting at least 18 hours prior to the time set for the meeting.

IN WITNESS WHEREOF, I have hereto affixed my signature this 7<sup>th</sup> day of January, A.D. 2011.

A handwritten signature in cursive script that reads "Karla K. Campbell". The signature is written in black ink and is positioned above a horizontal line.

Karla K. Campbell  
Secretary to the MNEA Board

A handwritten signature in cursive script that reads "Josh Piland". The signature is written in black ink and is positioned above a horizontal line.

Josh Piland  
Acting Board Relations Coordinator

**Michigan NextEnergy Authority**

**Resolution 2010-001**

**LG Chem Power Inc.**

At the meeting of the Michigan NextEnergy Authority (MNEA) held on December 14, 2010 in Lansing, Michigan.

**WHEREAS**, LG Chem Power Inc. (the "Company"), is a business entity located at 1857 Technology Drive, Troy, Michigan 48083;

**WHEREAS**, the Company has applied for certification as an Alternative Energy Technology Business under the Michigan NextEnergy Authority Act, 2002 PA 593;

**WHEREAS**, an officer of the Company has certified in writing that the Company is engaged primarily in the research, development or manufacturing of the alternative energy technology described as the research, development, and manufacturing of an alternative energy vehicle system;

**WHEREAS**, the alternative energy technology is related to the alternative energy vehicle system known as a battery cell energy system;

**WHEREAS**, all personal property of an Alternative Energy Technology Business that has not previously been subject to collection of taxes, and has not previously been exempted from taxes, under the general property tax act is eligible for certification;

**WHEREAS**, the Company has provided a list of such property for 2010 valued at \$1,511,864 that is attached to this resolution; and

**WHEREAS**, the Michigan Economic Development Corporation provides administrative services to the MNEA, and has reviewed the application and recommends approval of the certification by the MNEA Board.

**NOW, THEREFORE, BE IT RESOLVED**, that the MNEA certifies that LG Chem Power Inc. is an Alternative Energy Technology Business and that the property listed on the attached schedule is certified as Alternative Energy Personal Property and is exempt from taxes levied before January 1, 2013, provided that the local Assessor determines that the property listed:

- 1) is properly classified as personal rather than real property;
- 2) has not been previously subject to taxation under the general property tax act, and
- 3) has not previously been exempted from taxes under the general property tax act.

**BE IT FURTHER RESOLVED**, that notice of these certifications will be forwarded to the Company, the secretary of the local school district, and the treasurer and assessor of the local tax collecting unit in which the Company and the Alternative Energy Personal Property are located.

**ADOPTED**

Ayes: Doug Buckler; Tim Herman; Laura Mester (on behalf of Bob Emerson, authorization attached); Robert Kleine; and Bo Garcia

Nays:

Recused:

December 14, 2010  
Lansing, Michigan

Michigan Next Energy Authority

Application for Certification as an ALTERNATIVE ENERGY TECHNOLOGY BUSINESS  
Issued Under Authority of P.A. 593 of 2002, as Amended

Section 1                    General Information

Business Name	LG Chem Power Inc
Mailing Address 1	1857 Technology Drive
Mailing Address 2	Troy
City	MI
State	48083
Zip	
Taxpayers/Businesses FEIN	27-3260918
Tax Year Beginning	2010
Tax Year Ending	2010
Contact Person Name	Kevin Graziani
Contact Person Email Address	kgraziani@compactpower.com
Contact Person Phone Number	248 291-2385

Section 2                    Technology Information

(Select an option in the cell below from the list)

Sole Activity	Is the taxpayer solely engaged in one or a combination of these activities; research, development, or manufacturing?	
Activity Class	Select the Alternative Energy Technology for which the firm researches, develops, or manufactures equipment, component parts, materials, electronic devices, testing equipment and other related systems.	(Select only one option in the cell below from the list) Research & development of alternative energy vehicles
Related System	Select the alternative energy SYSTEM to which the activity above is related.	(Select only one option in the cell below from the list) A battery cell energy system

Please describe in detail the activities which you have selected and how they relate to the alternative energy SYSTEM that you have selected. Add additional pages or a separate attachment as required.  
The research, development and production of Lithium-ion batteries for use in Hybrid, Electric and Plug in Hybrid vehicles

2010 - 001 pg 2  
Michigan Next Energy Authority

Concurrence with the decision of the Michigan NextEnergy Authority Board by local taxing authorities and school districts is required. As part of the Authority's responsibility, it sends certified notices to the Treasurer, Assessor, and Secretary of the School Board for each location where property issued an exemption by the board is located.

Below please supply the requested information about your local jurisdictions for each location. If you have more than three locations, please contact the Authority administrator for assistance with the form.

Location of Property #1	Address 1 Address 2 City/Village/Township Zip Code	1857 Technology Drive Troy, MI 48083
Treasurer	Name Address 1 Address 2 City/Village/Township Zip Code	Sandra L. Kasperek 500 W Big Beaver Troy, MI 48084
Assessor	Name Address 1 Address 2 City/Village/Township Zip Code	Leger A. (Nino) Licari 500 W Big Beaver Troy, MI 48084
School Board	Name Address 1 Address 2 City/Village/Township Zip Code	Wendy Underwood 4400 Livernois Troy, MI 48098

Local School is Warren Con,  
not Troy. NL 01.31.11

Warren Consolidated Schools John Lettang 31300 Anita Warren MI 48093-1697
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Location of Property #2	Address 1 Address 2 City/Village/Township Zip Code	
Treasurer	Name Address 1 Address 2 City/Village/Township Zip Code	
Assessor	Name Address 1 Address 2 City/Village/Township Zip Code	
School Board	Name Address 1 Address 2 City/Village/Township Zip Code	

Location of Property #3	Address 1 Address 2 City/Village/Township Zip Code	
Treasurer	Name Address 1 Address 2 City/Village/Township Zip Code	
Assessor	Name Address 1 Address 2 City/Village/Township Zip Code	
School Board	Name Address 1 Address 2 City/Village/Township Zip Code	

**Michigan Next Energy Authority**  
Alternative Energy Technology Business Property Listing Form

Date Acquired	Description of Property	Location	Serial # or Asset #	New or Used*	Original Cost, Installed, Including Sales Tax and Freight
1/30/2010	(3) HP Elitebook bundles	Location #1		New	3,960.69
2/10/2010	Software Development & Troubleshooting	Location #1		New	17,230.00
2/18/2010	Compaq 5.6, Perpetual, PwrPC Flopping	Location #1		New	14,929.87
2/19/2010	Flash Bootloader	Location #1		New	38,255.00
3/10/2010	(2) floating software licenses for unit testing	Location #1		New	20,000.00
3/24/2010	FaqBugz Software Tool	Location #1		New	7,674.50
3/24/2010	Lenovo x201s Laptop	Location #1		New	2,086.48
3/24/2010	HP Elitebook model 8540P Laptops	Location #1		New	1,370.98
3/24/2010	HP Elitebook model 8540P Laptops	Location #1		New	1,370.98
3/26/2010	ASAP2 TOOLSET SOFTWARE	Location #1		New	2,201.00
4/19/2010	Lenovo SL510 Laptop	Location #1		New	3,554.81
4/29/2010	HP ELITEBOOK 8540P LAPTOP COMPUTERS	Location #1		New	1,279.83
4/29/2010	HP ELITEBOOK 8540P LAPTOP COMPUTERS	Location #1		New	1,279.83
4/29/2010	HP ELITEBOOK 8540P LAPTOP COMPUTERS	Location #1		New	1,279.83
4/29/2010	HP ELITEBOOK 8540P LAPTOP COMPUTERS	Location #1		New	1,279.83
4/29/2010	HP ELITEBOOK 8540P LAPTOP COMPUTERS	Location #1		New	1,279.83
4/29/2010	HP ELITEBOOK 8530P LAPTOP COMPUTERS	Location #1		New	1,203.42
5/5/2010	HP ELITEBOOK 8530P LAPTOP COMPUTERS	Location #1		New	1,203.42
5/20/2010	Matlab Software	Location #1		New	18,500.00
5/20/2010	ORACLE AGILE SOFTWARE LICENSES	Location #1		New	57,172.90
5/24/2010	HP ELITEBOOK 8440P LAPTOP COMPUTERS	Location #1		New	5,320.81
5/27/2010	Autocad LT 2011	Location #1		New	1,146.43
6/2/2010	Software Symantec Network Access Control	Location #1		New	29,478.75
6/3/2010	GENERIC CAN PROTOCOL STACK W/ TORM FOR FREESCALE	Location #1		New	5,006.00
6/23/2010	HP ELITEBOOK 8540P/HP2540P LAPTOP COMPUTERS	Location #1		New	8,525.57
6/29/2010	Star8 KWP2000 Bootloader	Location #1		New	22,990.00
7/6/2010	PC & Monitor, 4 port CAN card for PC	Location #1		New	4,738.00
7/7/2010	Projector to replace failed NEC projector	Location #1		New	1,004.17
7/14/2010	Software & Hardware in support of EE and SW	Location #1		New	16,471.00
7/16/2010	Environmental Tester Update	Location #1		New	32,001.69
8/11/2010	dSpace software	Location #1		New	88,239.59
8/14/2010	(5) HP EliteBook 8530p-Bundles (CIDW)	Location #1		New	2,821.40
8/24/2010	Qty5 - HP 8440P laptops for new hires	Location #1		New	4,243.78
8/26/2010	Crucial 16GB RAM Upgrade Kit for VMHOST1 virtual	Location #1		New	1,103.91
9/17/2010	Qty5 - HP 8440P laptops for new hires	Location #1		New	6,376.28
9/21/2010	Qty7 - Laptop computer for new hire	Location #1		New	5,158.98
9/30/2010	1 Crucial 16GB 240P DDR2 Dimm Kit	Location #1		New	1,144.42
9/30/2010	Qty5 - HP 8440P laptops for new hires	Location #1		New	10,337.19
10/19/2010	Windows server 2008 enterprise license	Location #1		New	1,372.68
Planned 2010	Computer Equipment	Location #1		New	250,000.00
<b>Total Value=</b>					<b>\$594,887.66</b>

**\$ 694,887.66**

**ALL OK THIS PAGE**

*MJ 2/15/11*

**\* \$250,000  
MAY/NOT BE ON  
RETURN**

**2010-001**







## Michigan Next Energy Authority

Signature and Authorization Section

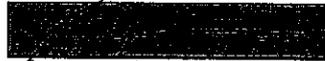
I am authorized by the company to complete and transmit this Personal Property Tax Exemption Request.

I certify that to the best of my knowledge information contained in this transmission is complete and accurate. I agree that this electronic transmission may be used in lieu of a paper transmission.

The company acknowledges that any material misrepresentation of company information on this listing may render the company ineligible for a tax credit or exemption or result in the revocation of any credit or exemption agreement executed in reliance on the information contained herein.

I understand that the MEDC and MNEA may audit this listing and its supporting data under the terms of the MNEA Certification and Authorization process.

Signature of employee or paid tax services provider who completed this application form.



Date of Signature Above

11 / 8 / 10

Signature of officer authorized by the company to apply for MEGA Tax Credit Certificates.



Date of Signature Above

11 / 8 / 10

2010-001

300 N. WASHINGTON SQ.  
LANSING, MI 48913

517.373.9808

MICHIGANADVANTAGE.ORG

**EXECUTIVE COMMITTEE**

MATTHEW P. CULLEN  
Chair  
Rock Ventures LLC

PHILIP H. POWER  
Vice-Chair  
The Center for Michigan

D. GREGORY MAIN  
President and CEO

JOHN W. BROWN  
Stryker Corporation

DR. DAVID E. COLE  
Center for  
Automotive Research

JOANN CRARY  
Saginaw Future Inc.

DR. HAIFA FAKHOURI  
Arab American and  
Chaldean Council

STEVEN K. HAMP  
Hamp Advisors, LLC

PAUL HILLEGONDS  
DTE Energy Company

GEORGE W. JACKSON JR.  
Detroit Economic  
Growth Corporation

BIRGIT M. KLOHS  
The Right Place, Inc.

F. THOMAS LEWAND  
Bodman LLP

STEVEN LIEDEL  
Office of  
Governor Jennifer Granholm

JEFF METTS  
Dowding Industries, Inc.

DR. IRVIN D. REID  
Wayne State University

SANFORD "SANDY" RING  
Hino Motors  
Manufacturing U.S.A., Inc.

MICHAEL B. STAEBLER  
Pepper Hamilton LLP

TODD A. WYETT  
Versa Development, LLC



January 13, 2011

Mr. Leger A. Licari, Assessor  
500 West Big Beaver  
Troy, MI 48084

Dear Mr. Licari:

The Michigan NextEnergy Authority (MNEA) is charged by law, Public Act 593 of 2002, with the certification of alternative energy technology businesses and alternative energy personal property, Public Act 549 of 2002. The MNEA is also charged with notifying the assessors and treasurers of the local tax collecting unit and the secretary of the school district, in which the property is located, of the annual certification.

The enclosed resolution, certifying the attached list of personal property of LG Chem Michigan Inc. as Alternative Energy Personal Property exempt from certain property taxes, was adopted at a meeting of the MNEA held on December 14, 2010. As indicated in the enclosed resolution, the maximum value of the exempted property located in the City of Troy is \$2,020,133 and is subject to the assessor's concurrence.

The City of Troy has sixty days from receipt of this letter in which to adopt a resolution to opt-out of the exemption of the alternative energy personal property from local personal property taxes.

Troy Public Schools also have sixty days from receipt of this letter in which to adopt a resolution to opt out of specific school-related taxes levied against the personal property.

Personal property acquired by LG Chem Michigan Inc. prior to January 1, 2013 may be eligible for certification as Alternative Energy Personal Property by the MNEA in future years. The City of Troy and Troy Public Schools will be notified of any future certification and will have sixty days in which to adopt a resolution to opt-out of the exemption on that personal property.

If you have questions, please contact Jessica Gomez at 517.241.4810.

Sincerely,

A handwritten signature in black ink that reads "Karla K. Campbell". The signature is written in a cursive style.

Karla K. Campbell  
Secretary to the MNEA Board

Enclosures



**Michigan Next Energy Authority (MNEA)**

**Certificate**

**Resolution 2010-006**

**LG Chem Michigan Inc.**

**Alternative Energy Technology Business Personal Property Exemption - 2010**

I, Karla K. Campbell, Secretary to the MNEA Board, do hereby certify that the attached is a true and complete copy of a resolution adopted by the MNEA board at a meeting on December 14, 2010 and that public notice of said meeting was given pursuant to Act No. 24, Public Acts of Michigan, 1995, including the case of a special or rescheduled regular meeting, or a meeting recessed for more than 36 hours, notice by posting at least 18 hours prior to the time set for the meeting.

IN WITNESS WHEREOF, I have hereto affixed my signature this 7<sup>th</sup> day of January, A.D. 2011.

A handwritten signature in cursive script that reads "Karla K. Campbell". The signature is written in black ink and is positioned above a horizontal line.

Karla K. Campbell  
Secretary to the MNEA Board

A handwritten signature in cursive script that reads "Josh Piland". The signature is written in black ink and is positioned above a horizontal line.

Josh Piland  
Acting Board Relations Coordinator

**Michigan NextEnergy Authority**

**Resolution 2010-006**

**LG Chem Michigan Inc.**

At the meeting of the Michigan NextEnergy Authority (MNEA) held on December 14, 2010 in Lansing, Michigan.

**WHEREAS**, LG Chem Michigan Inc. (the "Company"), is a business entity located at 1857 Technology Drive, Troy, Michigan 48083;

**WHEREAS**, on December 20, 2005, Compact Power, Inc., which was owned by LG Chem Ltd., was certified as an Alternative Energy Technology Business under the Michigan NextEnergy Authority Act, 2002 PA 593;

**WHEREAS**, in 2010, LG Chem Ltd. divested Compact Power, Inc. and established two separate companies, Compact Power, Inc. and LG Chem Michigan Inc., with the same EIN.

**WHEREAS**, an officer of the Company has certified in writing that the Company continues to be engaged solely in the research, development or manufacturing of the alternative energy technology described as the process of generating and putting into usable form the energy generated by an alternative energy system;

**WHEREAS**, the alternative energy technology is related to the alternative energy system known as a battery cell energy system;

**WHEREAS**, all personal property of an Alternative Energy Technology Business that has not previously been subject to collection of taxes, and has not previously been exempted from taxes, under the general property tax act is eligible for certification;

**WHEREAS**, the Company has provided a list of such property acquired, or to be acquired, in calendar year 2010 valued at \$2,020,133 that is attached to this resolution; and

**WHEREAS**, the Michigan Economic Development Corporation provides administrative services to the MNEA, and has reviewed the application and recommends approval the certification by the MNEA Board.

**NOW, THEREFORE, BE IT RESOLVED**, that the MNEA certifies that LG Chem Michigan Inc. is an Alternative Energy Technology Business and that the property listed on the attached schedule is certified as Alternative Energy Personal Property and is exempt from taxes levied before January 1, 2013, provided that the local Assessor determines that the property listed:

- 1) is properly classified as personal rather than real property;
- 2) has not been previously subject to taxation under the general property tax act; and
- 3) has not previously been exempted from taxes under the general property tax act.

**BE IT FURTHER RESOLVED**, that notice of these certifications will be forwarded to the Company, the secretary of the local school district, and the treasurer and assessor of the local tax collecting unit in which the Company and the Alternative Energy Personal Property are located.

**ADOPTED**

Ayes: Doug Buckler; Tim Herman; Laura Mester (on behalf of Bob Emerson, authorization attached); Susan Corbin (on behalf of Andrew Levin, authorization attached) Robert Kleine; and Bo Garcia

Nays:

Recused:

December 14, 2010  
Lansing, Michigan

2010-006

**Property Only Company Identification Information**

Name of Company making application	LG Chem Michigan Inc
Address of facility	1857 Technology Drive
City, State, Zip Code	Troy Michigan 48083
Primary NAICS code	335911

EIN -----> 84-1563669

Describe the type of business or principle product at this facility. LG Chem Michigan Inc is a North American subsidiary of LG Chem Ltd., one of the world's largest producers of lithium ion batteries. LG Chem Michigan Inc. headquartered in Troy, MI is an easily accessible local source for the research, development, engineering design and packaging of lithium-ion batteries for automotive and industrial applications.

Name of employee completing this application	Andrew W. Meehan
Title of employee completing this application	Cost Analysis
Phone number of employee completing this application	248 307-1800
Email address of employee completing this application	ameehan@compactpower.com

Name of officer authorized to approve this application	Kevin Graziani
Title of officer authorized to approve this application	Controller
Phone number of officer approving this application	248 291-2385
Email address of officer approving this application	kgraziani@compactpower.com

Enter the tax year for this Listing 2010

Please Enter the Name and Address where you would like the MEDC to return your Tax Certificate

Name of Company/Consulting Firm/ Accounting Firm	LG Chem Michigan Inc
To the Attention of	Kevin Graziani
Address	1857 Technology Drive
Address	Troy
City	Michigan
State	48083
Zip Code	

## Michigan Next Energy Authority

Concurrence with the decision of the Michigan NextEnergy Authority Board by local taxing authorities and school districts is required. As part of the Authorities responsibility, it sends certified notices to the Treasurer, Assessor, and Secretary of the School Board for each location where property issued an exemption by the board is located.

Below please supply the requested information about your local jurisdictions for each location. If you have more than three locations, please contact the Authority administrator for assistance with the form.

<b>Location of Property #1</b>	Address 1 Address 2 City/Village/Township Zip Code	1857 Technology Drive Troy 48083
<b>Treasurer</b>	Name Address 1 Address 2 City/Village/Township Zip Code	Sandra L Kasperek 500 W Big Beaver Troy, MI 48084
<b>Assessor</b>	Name Address 1 Address 2 City/Village/Township Zip Code	Leger A (Nino) Licari 500 W Big Beaver Troy, MI 48084
<b>School Board</b>	Name Address 1 Address 2 City/Village/Township Zip Code	Wendy Underwood 4400 Livernois Troy, MI 48098

Local School is Warren Con not Troy. NL 01/31/11

Warren Consolidated Schools  
 John Lettang  
 31300 Anita  
 Warren MI 48093-1697

<b>Location of Property #2</b>	Address 1 Address 2 City/Village/Township Zip Code	
<b>Treasurer</b>	Name Address 1 Address 2 City/Village/Township Zip Code	
<b>Assessor</b>	Name Address 1 Address 2 City/Village/Township Zip Code	
<b>School Board</b>	Name Address 1 Address 2 City/Village/Township Zip Code	

<b>Location of Property #3</b>	Address 1 Address 2 City/Village/Township Zip Code	
<b>Treasurer</b>	Name Address 1 Address 2 City/Village/Township Zip Code	
<b>Assessor</b>	Name Address 1 Address 2 City/Village/Township Zip Code	
<b>School Board</b>	Name Address 1 Address 2 City/Village/Township Zip Code	







**Michigan Next Energy Authority**  
Alternative Energy Technology Business Property Listing Form

Development Lab					Original Cost, Installed, Including Sales Tax and Freight
Date Acquired	Description of Property	Location	Serial # or Asset #	New or Used*	
2/26/2010	Base Plate, CMM Cart	Location #1		New	16,715.00
3/25/2010	CPI Owned Tooling ST-000152 Cover Module 20	Location #1		New	19,764.00
3/30/2010	Tooling for PIN Pilot Build	Location #1		New	60,000.00
4/12/2010	Indexing Conveyor	Location #1		New	295.75
5/13/2010	NEW EOL TESTER	Location #1		New	119,660.36
5/13/2010	NEW EOL TESTER - 2	Location #1		New	105,044.50
5/19/2010	CPI Owned Tooling ST-000429-AA Carrier	Location #1		New	36,500.00
5/19/2010	CPI Owned Tooling ST-000430-AA Module Cover Plate	Location #1		New	39,900.00
5/19/2010	CPI - OWNED Over Mold Tool - CM-000220	Location #1		New	17,250.00
5/19/2010	CPI - OWNED Pre-Mold Tool CM-000220	Location #1		New	17,400.00
5/28/2010	CPI Owned Tooling CM-000133-AA	Location #1		New	68,900.00
5/28/2010	CPI Owned Tooling CM-000134-AA Repeating Frame	Location #1		New	69,400.00
5/28/2010	CPI Owned Tooling CM-000135-AA End Cover	Location #1		New	68,900.00
5/28/2010	CPI Owned Tooling CM-000136-AA Frm Cw Plate	Location #1		New	44,500.00
6/22/2010	PROTOTYPE MODULE STACKER	Location #1		New	4,045.00
7/1/2010	ST TOOL SYSTEM 3-12NM WBALL RETAINER SQ DR	Location #1		New	14,516.00
8/9/2010	Senifinel 1-24 leak test instrument	Location #1		New	8,215.00
8/17/2010	L20 Ultrasonic Metal Welding System with stack	Location #1		New	22,131.14
8/19/2010	Insulation tester / AVG multimeter	Location #1		New	1,218.82
8/27/2010	Manifold installing tooling	Location #1		New	1,344.00
9/21/2010	Automatic Insulation Tester wistand Tester	Location #1		New	5,318.10
9/30/2010	TH-000162-AA Manifold series 10 port	Location #1		New	30,000.00
10/29/2010	Bench top Temperature Chamber Model S-1.5-3200	Location #1		New	10,350.00
10/29/2010	Differential Mass flow test instrument	Location #1		New	14,780.00
Planned 2010	Misc Tools and Rails	Location #1		New	15,000.00
Planned 2010	MES	Location #1		New	10,000.00
Total Value=					\$822,167.67

NOTE: Insert additional row/s if list of property is longer. Please insure that the SUM formula is accurate.  
NOTE: \*If any equipment is "Used" and purchased in the state, please provide the local municipality and school district in which the property was taxable/located previously.

**\$ 25,000**  
MAY/NOT BE ON  
RETURN

**\$ 822,167.67**  
ALL OK THIS PAGE  
TR 2/8/11

**\$ 38,000**  
**25,000**  

---

**\$ 63,000 TOTAL**

MAY/NOT BE ON  
RETURN

**\$ 131,524.16**  
**733.00**  
**1,065,707.77**  
**822,167.67**  

---

**\$ 2,020,132.60**

# Michigan Next Energy Authority

Alternative Energy Technology Business (AETB)

## NO CHANGE IN STATUS CERTIFICATION

Complete this certification if the business has received the "Alternative Energy Technology Business" designation by the authority in any previous year.

Name of Firm [REDACTED]  
Name of Authorized [REDACTED]

I, **Kevin Graziani**, **LGCM** hereby certify that **LGCM** was certified as an Alternative Energy Technology Business by the Michigan NextEnergy Authority in December of (select year--> **2008**), and that it continues to be engaged solely in the business of the research, development, and manufacturing of an Alternative Energy Technology.

Signature of Authorized Representative [REDACTED] Enter Date Below [REDACTED]

(Please sign this page after the entire workbook is printed.)

2010-006

**Michigan Next Energy Authority**

Signature and Authorization Section

I am authorized by the company to complete and transmit this Personal Property Tax Exemption Request.

I certify that to the best of my knowledge information contained in this transmission is complete and accurate.

I agree that this electronic transmission may be used in lieu of a paper transmission.

The company acknowledges that any material misrepresentation of company information on this listing may render the company ineligible for a tax credit or exemption or result in the revocation of any credit or exemption agreement executed in reliance on the information contained herein.

I understand that the MEDC and MNEA may audit this listing and its supporting data under the terms of the MNEA Certification and Authorization process.

Signature of employee or paid tax services provider who completed this application form.



Date of Signature Above

11/8/10

Signature of officer authorized by the company to apply for MEGA Tax Credit Certificates.



Date of Signature Above

11/8/10

300 N. WASHINGTON SQ.  
LANSING, MI 48913

517.373.9808

MICHIGANADVANTAGE.ORG



January 13, 2011

Mr. Leger A. Licari, Assessor  
500 West Big Beaver Road  
Troy, MI 48084

Dear Mr. Licari:

The Michigan NextEnergy Authority (MNEA) is charged by law, Public Act 593 of 2002, with the certification of alternative energy technology businesses and alternative energy personal property, Public Act 549 of 2002. The MNEA is also charged with notifying the assessors and treasurers of the local tax collecting unit and the secretary of the school district, in which the property is located, of the annual certification.

The enclosed resolution, certifying the attached list of personal property of United Solar Ovonic LLC as Alternative Energy Personal Property exempt from certain property taxes, was adopted at a meeting of the MNEA held on December 14, 2010. As indicated in the enclosed resolution, the maximum value of the exempted property located in the City of Troy is \$15,000 and is subject to the assessor's concurrence.

The City of Troy has sixty days from receipt of this letter in which to adopt a resolution to opt-out of the exemption of the alternative energy personal property from local personal property taxes.

Troy School District also has sixty days from receipt of this letter in which to adopt a resolution to opt out of specific school-related taxes levied against the personal property.

Personal property acquired by United Solar Ovonic LLC prior to January 1, 2013 may be eligible for certification as Alternative Energy Personal Property by the MNEA in future years. The City of Troy and Troy School District will be notified of any future certification and will have sixty days in which to adopt a resolution to opt-out of the exemption on that personal property.

If you have questions, please contact Jessica Gomez at 517.241.4810.

Sincerely,

A handwritten signature in black ink that reads "Karla K. Campbell". The signature is written in a cursive, flowing style.

Karla K. Campbell  
Secretary to the MNEA Board

Enclosures

**EXECUTIVE COMMITTEE**

MATTHEW P. CULLEN  
Chair  
Rock Ventures LLC

PHILIP H. POWER  
Vice-Chair  
The Center for Michigan

D. GREGORY MAIN  
President and CEO

JOHN W. BROWN  
Stryker Corporation

DR. DAVID E. COLE  
Center for  
Automotive Research

JOANN CRARY  
Saginaw Future Inc.

DR. HAIFA FAKHOURI  
Arab American and  
Chaldean Council

STEVEN K. HAMP  
Hamp Advisors, LLC

PAUL HILLEGONDS  
DTE Energy Company

GEORGE W. JACKSON JR.  
Detroit Economic  
Growth Corporation

BIRGIT M. KLOHS  
The Right Place, Inc.

F. THOMAS LEWAND  
Bodman LLP

STEVEN LIEDEL  
Office of  
Governor Jennifer Granholm

JEFF METTS  
Dowding Industries, Inc.

DR. IRVIN D. REID  
Wayne State University

SANFORD "SANDY" RING  
Hino Motors  
Manufacturing U.S.A., Inc.

MICHAEL B. STAEBLER  
Pepper Hamilton LLP

TODD A. WYETT  
Versa Development, LLC



**Michigan Next Energy Authority (MNEA)**

**Certificate**

**Resolution 2010-010**

**United Solar Ovonic LLC**

**Alternative Energy Technology Business Personal Property Exemption - 2010**

I, Karla K. Campbell, Secretary to the MNEA Board, do hereby certify that the attached is a true and complete copy of a resolution adopted by the MNEA board at a meeting on December 14, 2010 and that public notice of said meeting was given pursuant to Act No. 24, Public Acts of Michigan, 1995, including the case of a special or rescheduled regular meeting, or a meeting recessed for more than 36 hours, notice by posting at least 18 hours prior to the time set for the meeting.

IN WITNESS WHEREOF, I have hereto affixed my signature this 7<sup>th</sup> day of January, A.D. 2011.

A handwritten signature in cursive script, appearing to read "Karla K. Campbell", written over a horizontal line.

Karla K. Campbell  
Secretary to the MNEA Board

A handwritten signature in cursive script, appearing to read "Josh Piland", written over a horizontal line.

Josh Piland  
Acting Board Relations Coordinator

**Michigan NextEnergy Authority**

**Resolution 2010-010**

**United Solar Ovonic LLC**

At the meeting of the Michigan NextEnergy Authority (MNEA) held on December 14, 2010 in Lansing, Michigan.

**WHEREAS**, United Solar Ovonic LLC (the "Company"), is a business entity located at 3800 Lapeer Road, Auburn Hills, Michigan 48326, and also has property located at 2705 Commerce Parkway, Auburn Hills, Michigan 48326 and 1100 West Maple Road, Troy, Michigan 48084;

**WHEREAS**, on December 16, 2003, the Company was certified as an Alternative Energy Technology Business under the Michigan NextEnergy Authority Act, 2002 PA 593;

**WHEREAS**, an officer of the Company has certified in writing that the Company continues to be engaged solely in the research, development or manufacturing of the alternative energy technology described as the process of generating and putting into usable form the energy generated by an alternative energy system;

**WHEREAS**, the alternative energy technology is related to the alternative energy system known as a photovoltaic energy system;

**WHEREAS**, all personal property of an Alternative Energy Technology Business that has not previously been subject to collection of taxes, and has not previously been exempted from taxes, under the general property tax act is eligible for certification;

**WHEREAS**, the Company has provided a list of such property acquired, or to be acquired, in calendar year 2010 valued at \$7,706,059 that is attached to this resolution; and

**WHEREAS**, the Michigan Economic Development Corporation provides administrative services to the MNEA, and has reviewed the application and recommends approval the certification by the MNEA Board.

**NOW, THEREFORE, BE IT RESOLVED**, that the MNEA certifies that United Solar Ovonic LLC's personal property as listed on the attached schedule is Alternative Energy Personal Property and is exempt from taxes levied before January 1, 2013, provided that the local Assessor determines that the property listed:

- 1) is properly classified as personal rather than real property;
- 2) has not been previously subject to taxation under the general property tax act; and
- 3) has not previously been exempted from taxes under the general property tax act.

**BE IT FURTHER RESOLVED**, that notices of these certifications will be forwarded to the Company, the secretary of the local school district, and the treasurer and assessor of the local tax collecting unit in which the Company and the Alternative Energy Personal Property are located.

**ADOPTED**

Ayes: Doug Buckler; Tim Herman; Laura Mester (on behalf of Bob Emerson, authorization attached); Susan Corbin (on behalf of Andrew Levin, authorization attached) Robert Kleine; and Bo Garcia

Nays:

Recused:

December 14, 2010  
Lansing, Michigan

**Property Only Company Identification Informaiton**

Name of Company making application	United Solar Ovonic LLC
Address of facility	Multiple - Auburn Hills, Troy, Rochester Hills
City, State, Zip Code	
Primary NAICS code	334413

EIN ----->	38-3529885
------------	------------

Describe the type of business or principle product at this facility.	<p align="center">Manufacture of photovoltaic cells</p>
--	---

Name of employee completing this application	Frank L. Giglio
Title of employee completing this application	Managing Director, Diversified Property Solutions
Phone number of employee completing this application	586-291-9625
Email address of employee completing this application	frank.giglio@dpsadvisors.com

Name of officer authorized to approve this application	Kriss Andrews
Title of officer authorized to approve this application	Interim Chief Financial Officer
Phone number of officer approving this application	248-299-6047
Email address of officer approving this application	kandrews@uni-solar.com

Enter the tax year for this Listing	2010
-------------------------------------	------

Please Enter the Name and Address where you would like the MEDC to return your Tax Certificate

Name of Company/Consulting Firm/ Accounting Firm	Diversified Property Solutions LLC
To the Attention of	Frank L. Giglio
Address	26400 Lahser Rd
Address	Ste 109
City	Southfield
State	MI
Zip Code	48033

2010-010

## Michigan Next Energy Authority

Concurrence with the decision of the Michigan NextEnergy Authority Board by local taxing authorities and school districts is required. As part of the Authorities responsibility, it sends certified notices to the Treasurer, Assessor, and Secretary of the School Board for each location where property issued an exemption by the board is located.

Below please supply the requested information about your local jurisdictions for each location. If you have more than three locations, please contact the Authority administrator for assistance with the form.

<b>Location of Property #1</b>	Address 1	3800 Lapeer Rd
	Address 2	
	City/Village/Township	Auburn Hills
	Zip Code	48326
<b>Treasurer</b>	Name	Treasurer
	Address 1	1827 N Squirrel Rd
	Address 2	
	City/Village/Township	Auburn Hills
<b>Assessor</b>	Name	Victor Bennett
	Address 1	1827 N Squirrel Rd
	Address 2	
	City/Village/Township	Auburn Hills
<b>School Board</b>	Name	The School District of the City of Pontiac
	Address 1	Odell Nails Administration Building
	Address 2	47200 Woodward Ave
	City/Village/Township	Pontiac
	Zip Code	48342

<b>Location of Property #2</b>	Address 1	2705 Commerce Pkwy
	Address 2	
	City/Village/Township	Auburn Hills
	Zip Code	48326
<b>Treasurer</b>	Name	Treasurer
	Address 1	1827 N Squirrel Rd
	Address 2	
	City/Village/Township	Auburn Hills
<b>Assessor</b>	Name	Victor Bennett
	Address 1	1827 N Squirrel Rd
	Address 2	
	City/Village/Township	Auburn Hills
<b>School Board</b>	Name	The School District of the City of Pontiac
	Address 1	Odell Nails Administration Building
	Address 2	47200 Woodward Ave
	City/Village/Township	Pontiac
	Zip Code	48342

2010-010

Location of Property #3	Address 1	1100 W Maple
	Address 2	
	City/Village/Township	Troy
	Zip Code	48084
Treasurer	Name	Sandra L. Kasperet
	Address 1	500 W. Big Beaver Rd
	Address 2	
	City/Village/Township	Troy
Assessor	Name	Nino Licari
	Address 1	500 W. Big Beaver Rd
	Address 2	
	City/Village/Township	Troy
School Board	Name	Troy School District
	Address 1	4400 Livernois Rd
	Address 2	
	City/Village/Township	Troy
	Zip Code	48098

Location of Property #4	Address 1	2956 Waterview Dr
	Address 2	
	City/Village/Township	Rochester Hills
	Zip Code	48309
Treasurer	Name	Kurt A. Dawson
	Address 1	1000 Rochester Hills Dr
	Address 2	Second Floor
	City/Village/Township	Rochester Hills
Assessor	Name	Kurt A. Dawson
	Address 1	1000 Rochester Hills Dr
	Address 2	Second Floor
	City/Village/Township	Rochester Hills
School Board	Name	Avondale School District
	Address 1	2940 Waukegan St
	Address 2	
	City/Village/Township	Auburn Hills
	Zip Code	48326

2010-010



# Michigan Next Energy Authority

Alternative Energy Technology Business (AETB)

## NO CHANGE IN STATUS CERTIFICATION

Complete this certification if the business has received the "Alternative Energy Technology Business" designation by the authority in any previous year.

Name of Firm   
Name of Authorized

I, Kriss Andrews, United Solar Ovonic, LLC hereby certify that United Solar Ovonic, LLC was certified as an Alternative Energy Technology Business by the Michigan NextEnergy Authority in December of (select year--> 2003) and that it continues to be engaged solely in the business of the research, development, and manufacturing of an Alternative Energy Technology.

Signature of Authorized Representative

(Please sign this page after the entire workbook is printed.)

## Michigan Next Energy Authority

Signature and Authorization Section

I am authorized by the company to complete and transmit this Personal Property Tax Exemption Request.

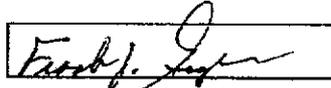
I certify that to the best of my knowledge information contained in this transmission is complete and accurate.

I agree that this electronic transmission may be used in lieu of a paper transmission.

The company acknowledges that any material misrepresentation of company information on this listing may render the company ineligible for a tax credit or exemption or result in the revocation of any credit or exemption agreement executed in reliance on the information contained herein.

I understand that the MEDC and MNEA may audit this listing and its supporting data under the terms of the MNEA Certification and Authorization process.

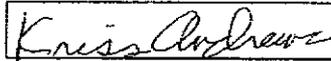
Signature of employee or paid tax services provider who completed this application form.



Date of Signature Above

11/02/10

Signature of officer authorized by the company to apply for MEGA Tax Credit Certificates.



Date of Signature Above

11/04/10



*Leaders at the Core of Better Communities*

To: John Szerlag, City Manager and Troy City Council

From: Craig R. Rapp, Project Manager

RE: City of Troy Organizational Review

Date: March 16, 2011

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The presentation of the Troy Police Department Operations report represents the culmination of ICMA's detailed analysis of services and staffing in a majority of the services areas within the City of Troy. As noted in both reports, the City faces significant fiscal challenges and in response, has undertaken numerous efforts to address both its current and long-term needs.

In addition to the layoffs, outsourcing and privatization efforts already in place, City Council Adopted Option 1- a budget balancing strategy that projects staff reductions over a five year period. The question for the City, and for ICMA, was whether the reductions proposed in Option 1 – particularly in the latter years, would result in staffing and resource levels insufficient to support service delivery at historic levels.

ICMA's analysis concluded that full implementation of Option 1 budget reductions would result in unsustainable conditions in a number of service areas. To establish conditions under which reduced, but reasonable service levels might be achieved; ICMA recommended that eleven of the Option 1 staff reductions, four of which are in the police department, be retained. While not guaranteeing success, these actions, if coupled with full implementation of the other ICMA recommendations, would position the city to maintain services across all areas.

In addition, the City will need to address the following:

1. Doing less with less. The City's financial projections indicate that it will take approximately fifteen years to recover the tax base it had prior to the recent economic downturn. This reality suggests that the City of Troy, and the community at large, will need to understand and accommodate a permanently constrained fiscal environment. This doesn't mean migration to a "basic" level of service, but it will necessitate the rigorous management of resources and employment of all options at its disposal to maintain quality.
2. Setting a clear direction. To ensure that the most important and valued services are maintained at the highest levels, clear direction from the City Council and senior leadership on priorities and

strategic objectives is essential. The City has taken steps in this direction- these should be continued and supplemented in ways suggested in ICMA's report.

3. Engaging stakeholders. The establishment of priorities and a strategic direction should be done in conjunction with the stakeholder engagement –both outside and within the organization. Realignment and reductions should be implemented based upon a clear understanding of citizen and stakeholder needs and expectations.
4. Rebalancing service delivery. To maintain a reasonable level of service in an era of permanent constraint, the City should “rebalance” the level of service delivery. ICMA provided information on service levels in each of the major reports, along with suggested implementation strategies.
5. Committing to the change process. Rebalancing service delivery is a complex process and will require a long-term commitment to change. Moreover, it will require the establishment of new ways of thinking about and doing business. Each of the ICMA reports suggests approaches and mechanisms for implementing the change, and in all cases, such actions require sustained, long-term commitment.

In summary, it is the opinion of ICMA that the City of Troy has the ability to maintain a reasonable level of service delivery going forward, but it will be necessary to undertake and sustain a variety of organizational change initiatives.

**UNEDITED DRAFT**

**Final Report**

**Police Operations**

**Troy, Michigan**

**FOR DISCUSSION PURPOSES ONLY**

**NOT FOR PUBLIC DISSEMINATION**

UNEDITED DRAFT - FOR DISCUSSION ONLY

Submitted by and reply to:

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International City/County Management Association

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## **ICMA Background**

The International City/County Management Association (ICMA) is the premier local government leadership and management organization. Since 1914, ICMA's mission has been to create excellence in local governance by developing and advocating professional local government management worldwide. ICMA provides an information clearinghouse, technical assistance, training, and professional development to more than 9,100 city, town, and county experts and other individuals throughout the world.

## **ICMA Center for Public Safety**

The ICMA Center for Public Safety Team helps communities solve critical problems by providing management consulting support to local governments. One of ICMA Center for Public Safety Services' areas of expertise is public safety services, which encompasses the following areas and beyond: organizational development, leadership and ethics, training, assessment of calls for service workload, staffing requirements analysis, designing standards and hiring guidelines for police and fire chief recruitment, police/fire consolidation, community-oriented policing, and city/county/regional mergers.

These performance indicators have developed from decades of research and are applicable in all communities. For that reason, comparisons of reports reveal similar reporting formats, but each community's data are analyzed on an individual basis by the ICMA specialists and uniquely represent the compiled information for that community.

## **ICMA Project Contributors**

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## **Executive Summary**

ICMA was commissioned to review the operations of the Troy Police Department (TPD). While this analysis covered all aspects of the department's operations, particular focus was on identifying the appropriate staffing of the agency given its workload, community demographics and crime levels.

We utilized operations research methodology to analyze departmental workload and compared that workload to staffing and deployment levels. We reviewed other performance indicators which allow us to understand service implications on current staffing. We reviewed the department's organizational design to determine if the various functions of a modern police agency were appropriately staffed.

The study incorporated several distinct phases: data collection, interviews with key police and administration personnel, on-site observations of the job environment, data analysis, comparative analyses, alternatives and recommendations, and submission and oral briefings.

Based upon our review it is our opinion that the TPD is a highly professional, well-managed police agency. TPD as an organization employs a problem solving philosophy, is engaged with and enjoys the support of the community, and provides a very high level of customer service. The department has enjoyed significant and long-term support from City Management, City Council, and the community. The overriding assumption governing the ICMA review of Troy police operations was that the agency, due to financial considerations, needs to reduce its workforce. This has the potential to impact the ability of the department to maintain the service delivery levels currently received by the community. It also has the potential to affect the workforce internally by limiting opportunities for specializations

and career development that have served to attract and retain highly trained, educated, and professional law enforcement personnel.

Over the last several years, the TPD in partnership with City administration conducted a comprehensive analysis of the police department and developed several retrenchment options to consider. Evaluating department operations within the context of these options, while maintaining services, was the evaluation philosophy employed by the ICMA team.

In general, the TPD is an outstanding department. By all measures the department is well managed, enjoys the support and trust of the community, is well respected by other departments in the region, is staffed by a dedicated and motivated workforce, and has undoubtedly contributed to the low crime and high quality of life experienced by the citizens of Troy. Reducing staff and realigning operations, while necessary from a financial perspective, will have an impact on all of the areas just mentioned. Headcount reductions to the extent being considered will result in service reductions and community expectations need to be managed appropriately. The quantity and quality of the services currently offered by the TPD will change. The recommendations contained in this report are offered in support of the reductions in staffing and service, and are designed to provide a minimal police operational model that contemplates providing basic police services. It must be realized that the final outcome of these reductions will produce a demonstrable reduction in police services to the Troy community. The service reductions will be both immediate, in the form of eliminated police response to calls, and long-term, in the form of diminished capacity to investigate criminal incidents and organizations. Nonetheless, the TPD is a competent and professional police organization and has methodologically charted a reasonable retrenchment. The recommendations provided by ICMA are intended to supplement and assist that retrenchment.

In general, the overriding themes contained in this report center around consolidation divisions and units, eliminating demand for service, maintaining core functions, and adopting a more generalist approach to policing at all levels. One thing for certain is that the same leadership that plotted the methodical retrenchment will be called upon to plot the rebirth of a leaner and simpler organization. Old units, jobs, duties, and responsibilities will be changed, but the similar work will need to be done. The leadership of the TPD must recognize that the paradigm of policing in Troy has changed and embrace the new generalist approach to policing. The TPD must get "back to basics" and focus on the core mission of the police department to reduce crime and disorder, and provide high quality police services to the Troy community, while keeping morale and esprit de corps high. This is a huge task and one that must be dealt with head-on through training, education, communication and collaboration.

In the recent past, the current management team implemented many best practices to address the fiscal challenges and they should be commended for these efforts. The department has eliminated command positions, replaced full-time sworn personnel with part time non-sworn, civilianized positions, consolidated dispatch and jail operations with the City of Clawson, consolidated units, obtained grants, and explored numerous revenue generating initiatives. The recommendations offered in this report augment these initiatives and where possible offer additional efficiency and cost saving measures.

### **Recommendations:**

- **Option 1 is viable. Examination of the staffing model titled "Option 1" is a viable staffing plan for police operations. Several modifications of the plan are offered to improve and strengthen**

**this model and maintain reasonable service levels. The full implementation of Option 1, however, cuts too deep into the organization staffing level, and it is recommended that four additional sworn positions be added to the final model.**

- **Also, in order to ensure a smooth transition the time horizon for staffing reductions presented in Option 1 are feasible.**
- **Maintain four patrol shifts and 10-hour tours**
- **Establish a Calls for Service Committee to explore workload reduction possibilities including:**
  - **Eliminate response to routine medical calls**
  - **Eliminate response to property damage only motor vehicle accidents**
  - **Eliminate response to animal calls**
  - **Establish a Burglary Alarm reduction program to drastic reduce response to these calls**
- **Eliminate the Professional Standards and Community Services Division and transfer the duties, responsibilities, and personnel to other Divisions.**
  - **Eliminate the Captain position**
  - **Create a new Division called Investigations and Administrative Division. This new division will combine the duties and responsibilities of the former Investigations Division and the Professional Standards Division**
- **Merge, both from a personnel standpoint and from an operational standpoint, Special Investigations, Criminal Intelligence, and Directed Patrol Units.**
- **Relocate the Community Services Unit in the Operations Division and closely align the activities of this unit with problem-solving and patrol operations.**

- **Eliminate the Traffic Unit and redistribute these responsibilities to patrol.**
- **Adopt a generalist approach to all police activities as opposed to a specialist approach. Adopting this approach requires extensive cross-training of personnel.**
- **Empanel internal “re-engineering” sessions to communicate organizational modifications to all employees.**

It must be noted that the recommendations offered and reductions contemplated are viable. But like all plans the difficult part comes during the execution of those plans. In order to undertake an organizational change of this magnitude it is essential that one individual be tasked with overseeing the changes. Similarly, leadership and continued high levels of dedication by all members of the TPD will be essential to successful implementation of this plan. A clear and consistent message must be embraced and communicated to all members of the department that things must change, old ways of doing things are gone, job descriptions and responsibilities are different, and more is expected.

Throughout the course of the ICMA site-visit a palpable sense of concern could be felt. Understandably, uniformed and civilian members of the department are witnessing drastic personnel and budget cuts and are having difficulty dealing with the transition. The human impact cannot be ignored or understated. It represents a significant challenge in terms of leadership, especially at the executive and management levels of the organization. The current management team recognized these issues early on in the down-sizing process and has done a commendable job grappling with the operational and human-resource issues associated with these changes. This must continue and the department must work very closely with uniformed and civilian members and integrate them in the process of retrenchment.

Similarly, the leadership of the department, both formal and informal, must continue to exemplify that “can do” attitude that makes the TPD a premiere police agency. Without this winning and positive philosophy the transition will be more difficult and painful than it already appears to be.

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## **PART 1. OPERATIONS ANALYSIS**

### **I. Methodology**

#### **A. Data Analysis**

This report utilizes numerous sources of data to support conclusions and recommendations for the Troy Police Department. Information was obtained from the FBI Uniform Crime Reporting (UCR) Program, Part I Index Crime, and Police Officer headcounts; and numerous sources of TPD internal information, including data mining from the computer-aided dispatch (CAD) system for information on calls for service (CFS).

#### **B. Interviews**

The study relied extensively on intensive interviews with TPD personnel. On-site and in-person interviews were conducted with all division commanders regarding their operations. Similarly, employee representatives were interviewed to get an understanding of the labor-management climate in Troy.

#### **C. Focus Groups**

A focus group is an unstructured group interview in which the moderator actively encourages discussion among participants. Focus groups generally consist of eight to ten participants and are used to explore issues that are difficult to define. Group discussion permits greater exploration of important and often hard to define topics. For the purposes of this study several focus groups were held with representatives of the department.

#### **D. Document Review**

ICMA consultants were furnished with numerous reports and summary documents by the Troy Police Department. Information on strategic plans, personnel staffing and deployment, evaluations, training records, and performance statistics were provided to ICMA.

#### **E. Operational/Administrative Observations**

Over the course of the evaluation period numerous observations were conducted. These included observations of general patrol, special enforcement, investigations, and administrative functions. ICMA representatives engaged all facets of department operations from a “participant observation” perspective.

#### **F. Implementing the Report’s Recommendations**

ICMA’s conclusions and recommendations are a blueprint for both the city and police administration. The city administration should have periodic meetings with the police department to ensure that ICMA’s recommendations are implemented. It is strongly recommended that the chief identify and task one individual with responsibility for implementing these recommendations. This person should establish a liaison with the chief of police, and should be given the authority and responsibility to effectuate the changes recommended. This includes ensuring the recommendations are executed in a timely fashion and evaluate the department’s progress every six months for efficiency, effectiveness, and performance.

ICMA’s recommendations are practical and sensible and should be implemented by the police administration within a reasonable period of time.

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## **II. Background**

Policing involves a complex set of activities. Police officers are not simply crime fighters whose responsibilities are to protect people's safety and property and to enhance the public's sense of security. The police have myriad other basic responsibilities on a daily basis, including preserving order in the community, guaranteeing the movement of pedestrian and vehicular traffic, protecting and extending the rights of persons to speak and assemble freely, and providing assistance for those who cannot assist themselves.

The TPD provides a full range of police services, which include responding to emergencies and calls for service, performing directed activities, and solving problems. The department has an authorized strength (2010–2011 Organizational Chart) of 123 sworn officers, including one chief, three captains, seven lieutenants, eighteen sergeants, and ninety-four police officers. The department services include patrol, school resources, investigations, traffic, crime prevention, and narcotics enforcement.

### **A. Troy Demographics**

When determining the appropriateness of the deployed resources—both current and future—a key factor for consideration is demographic characteristics of the community.

According to the United States Census Bureau, Troy has a total area of 34.3 square miles and about 80,182 citizens. The racial makeup of the city is estimated to be 82.3 percent White, 2.8 percent Black, 1.5 percent Hispanic, and 13.3 percent Asian. The median income for a household in the city is approximately \$85,000. The cost of living in Troy in December 2009 was estimated at 92.2, lower than the national average. Greater than 92 percent of Troy residents have a high school diploma, and half of all residents are college graduates. Troy was recently ranked the fifth safest city in the nation

as well as the safest in Michigan. Troy has been ranked the safest city in Michigan nine out of the last thirteen years the rankings have been published. In 2008, Troy was ranked twenty-second on a list of "Best Places to Live" in the United States by CNN Money, using criteria including housing, quality of education, economic strength, and recreational opportunities. Troy is home to numerous office centers, light industries, and retail developments.

## **B. Uniform Crime Report/Crime Trends**

As defined by the Uniform Crime Report (UCR), the crime index is the total of the seven major Part 1 crimes used to measure the extent, fluctuation, and distribution of serious crime in geographical areas. Part 1 crimes are the seven most serious offenses: murder, rape, robbery, aggravated assault, burglary, larceny, and motor vehicle theft.

In 2009, the City of Troy reported 1,959 Part 1 crimes. The following exhibits display the seven categories of index crime for 2009. The exhibits also put the reported crime into proper context. In addition to raw numbers, serious crime is converted to rate per 100,000, and compared with the ten other cities in Michigan of similar size, as well as national and state crime rates. Examination of this exhibit demonstrates that both violent and property crime rates in Troy are very low.

In order to understand crime in Troy, it is important to put it into perspective by comparing the crime data with communities of similar size, and comparing rates of crime and not overall numerical counts of crime. The following tables compare serious crime in Troy with ten other cities in Michigan of similar size—Clinton Township, Livonia, Dearborn, Canton Township, Westland, Farmington Hills, Southfield, Shelby Township, Kalamazoo, and Waterford Township—along with national and statewide data to put the crime in Troy into better perspective. While crime is a function of many variables in a community, population is one of the most

influential ones and a variable that is widely reported and easy to understand and analyze. The tables below examine numerical counts and rates of serious crime in these thirteen jurisdictions. For the purposes of this analysis, serious crime is defined as crime reported to the FBI in the following categories: murder, rape, robbery, aggravated assault, burglary, larceny—theft, and auto theft.

Similarly, information is provided regarding the number of police officers employed in the eleven comparison communities. For illustration purposes, this information is also reported as the number of officers per 100,000 residents. It should be noted that population sizes range from 95,956 to 70,403. This analysis is not intended to compare Troy with any particular city. It is simply meant as an illustration of crime with communities of approximately similar populations in Michigan and how they compare.

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## Exhibit 1. UCR Crime Comparisons

Location	Population	Murder	Rape	Robbery	Aggravated Assault	Burglary	Larceny—Theft	Motor Vehicle Theft
U.S.	307,006,550	15,241	88,097	408,217	806,843	2,199,125	6,327,230	794616
Michigan	9,969,727	627	4,514	12,330	32,076	75,815	177,720	29383
Clinton Township	95,956	1	24	50	202	518	1,553	232
Livonia	90,232	3	16	40	117	341	1,580	311
Dearborn	85,305	3	16	112	208	712	2,961	582
Canton Township	82,634	1	21	26	90	294	1,120	92
<b>Troy</b>	<b>80,182</b>	<b>0</b>	<b>17</b>	<b>13</b>	<b>49</b>	<b>231</b>	<b>1,564</b>	<b>85</b>
Westland	78,149	2	39	98	248	611	1,566	312
Farmington Hills	78,140	1	10	20	77	256	1,134	130
Southfield	75,074	2	32	129	246	653	1,960	469
Shelby Township	72,094	0	19	14	60	185	739	83
Kalamazoo	71,664	2	71	204	425	1,430	2,632	264
Waterford Township	70,403	0	25	66	126	422	1,219	87

Using the data from **Exhibit 1**, rankings are constructed to demonstrate the order in rank from highest to lowest on several categories of serious crime. A “1” in the exhibit below indicates that the location had the highest rate of crime for that category among the ten largest cities in Michigan. Similarly, a “10” in the table represents the lowest amount of crime in that category among the cities.

## Exhibit 2. Violent Crime Rate Comparisons

Location	Population	Population per 100,000	Sworn POs	Sworn PO per 100,000	Rank Sworn PO	Violent Crime	VC Rate per 100,000	VC Rank
U.S.	307,006,550	3,070.07	706,886	230.25		<b>1,318,398</b>	429.44	
Michigan	9,969,727	99.70	18,800	188.57		<b>49,547</b>	496.97	
Clinton Township	95,956	0.96	107	111.51	8	277	288.67	6
Livonia	90,232	0.90	148	164.02	4	176	195.05	7
Dearborn	85,305	0.85	193	226.25	2	339	397.40	4
Canton Township	82,634	0.83	86	104.07	10	138	167.00	8
<b>Troy</b>	<b>80,182</b>	<b>0.80</b>	<b>128</b>	<b>159.64</b>	<b>5</b>	<b>79</b>	<b>98.53</b>	<b>11</b>
Westland	78,149	0.78	96	122.84	7	387	495.21	3
Farmington Hills	78,140	0.78	116	148.45	6	108	138.21	9
Southfield	75,074	0.75	147	195.81	3	409	544.80	2
Shelby Township	72,094	0.72	70	97.10	11	93	129.00	10
Kalamazoo	71,664	0.72	242	337.69	1	702	979.57	1
Waterford Township	70,403	0.70	77	109.37	9	217	308.23	5

According to **Exhibit 2**, which compares violent crime rates, Troy has the lowest violent crime rate among all the jurisdictions selected. Violent crime is defined as the total reported cases of murder, rape, robbery, and aggravated assault. Violent crime in Troy is 77.1 percent lower than the national average, 80.2 percent lower than the Michigan statewide average, and 90 percent lower than the violent crime rate in Kalamazoo, which has the highest rate of the jurisdictions examined. With only 79 violent crimes reported in calendar year 2009, Troy is a safe and relatively crime-free community.

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### Exhibit 3. Property Crime Rate Comparisons

Location	Population	Pop per 100,000	Sworn POs	Sworn PO per 100000	Rank Sworn PO	Prop. crime	PC Rate	PC Rank
U.S.	307,006,550	3,070.07	706,886	230.25		<b>9,320,971</b>	3,036.08	
Michigan	9,969,727	99.70	18,800	188.57		<b>282,918</b>	2,837.77	
Clinton Township	95,956	0.96	107	111.51	8	2,303	2,400.06	7
Livonia	90,232	0.90	148	164.02	4	2,232	2,473.62	5
Dearborn	85,305	0.85	193	226.25	2	4,255	4,987.98	2
Canton Township	82,634	0.83	86	104.07	10	1,506	1,822.49	10
<b>Troy</b>	<b>80,182</b>	<b>0.80</b>	<b>128</b>	<b>159.64</b>	<b>5</b>	<b>1,880</b>	<b>2,344.67</b>	<b>8</b>
Westland	78,149	0.78	96	122.84	7	2,489	3,184.94	4
Farmington Hills	78,140	0.78	116	148.45	6	1,520	1,945.23	9
Southfield	75,074	0.75	147	195.81	3	3,082	4,105.28	3
Shelby Township	72,094	0.72	70	97.10	11	1,007	1,396.79	11
Kalamazoo	71,664	0.72	242	337.69	1	4,326	6,036.50	1
Waterford Township	70,403	0.70	77	109.37	9	1,728	2,454.44	6

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The property crime experience in Troy is somewhat different. According to the data presented in **Exhibit 3**, Troy ranks eighth out of the eleven jurisdictions examined, with Shelby Township, Farmington Hills, and Canton Township experiencing a lower property crime rate than Troy. Nonetheless, the property crime rate in Troy is 22.8 percent lower than the national rate, 17.4 percent lower than the Michigan statewide rate, and 61.2 percent lower than the highest property crime rate in Kalamazoo, which had the highest rate of the jurisdictions examined. Undoubtedly, the property crime rate in Troy is a function of the density of retail shopping facilities in the community. The Somerset Collection and the Oakland Mall located in Troy contribute to property crime and are an important factor in this analysis.

Also, examination of the data pertaining to police officer staffing reveals that the TPD ranks fifth out of the eleven comparison jurisdictions. With approximately 159 officers per 100,000 residents, Troy has more officers per resident than Farmington Hills, Westland, Clinton Township, Waterford Township, and Shelby Township. While officer-per-resident ratios are generally unreliable criteria upon which to base staffing decisions, the information is provided for illustration on how other communities distribute public safety resources.

Larceny in Troy is the highest reported crime and drives the overall rate of crime in the community. In 2009, Troy recorded 1,564 larcenies; this represents 79.8 percent of all serious crime. Larceny is the largest contributor to serious crime in Troy and demands the most attention from an organizational perspective with regard to staffing, deployment, and operations. The large retail centers in Troy contribute to larceny and therefore drive the larger crime picture for the community. This requires serious and deliberate strategic planning and close cooperation with the management of these locations.

### **C. Operations Division**

Patrol is the core of the police department and the most visible component. Patrol staffing levels should be determined based on CFS demand and crime and disorder conditions in the community.

According to personnel staffing reports from September 2010, Troy utilizes a four-shift patrol staffing configuration, with officers working ten-hour shifts. Shift 1 has one lieutenant, two sergeants, and 17 police officers working a 0700x1700 tour of duty. Shift 2 has one lieutenant, two sergeants, and 16 police officers working a 1630x0230 tour of duty. Shift 3 has one lieutenant, two sergeants, and 15 police officers working a 2130x0730 tour of duty. Shift 4 has one sergeant and seven police officers working a 1200x2200 tour of duty.

#### **Recommendation:**

#### **Maintain the current four-shift, ten-hour patrol staffing plan**

Ten-hour shifts are common in the United States but very difficult to manage. Typically, police departments with ten-hour shifts do not deploy them to maximize efficiency. The method in which Troy structures the patrol staffing plan is excellent and rarely seen in this country. The current system capitalizes on the overlap created by the ten-hour tour length as opposed to falling victim to it. Essentially, the TPD examines calls for service and crime demands on a periodic basis and creates the shifts accordingly. Currently, the shifts are aligned to create coverage by two shifts of officers from the hours of 1200 to 0230 hours, when crime and calls for service are at their highest. Similarly, staffing levels are reduced from 0230 hours to 1200 hours, when demand is at its lowest.

Closer examination of shifts 1, 2, and 3 indicates a near equal distribution of days off assigned to each officer. Credit must be given to the command staff

of the TPD for this distribution. Most officers desire nights and weekends off, and most demand for police service is on nights and weekends. Many police departments succumb to the pressures of their employees to grant nights and weekends off for patrol officers. Troy's staffing model indicates that not only are the shift start times, end times, and shift overlaps ideally structured, but the days off are ideally structured as well.

Recent developments in Troy required the police department to reduce patrol personnel. The administration analyzed calls for service and other community demands and made reductions almost exclusively on Shift 4. At the time of the ICMA visit, Shift 4 personnel consisted of one sergeant and seven officers, and all officers were scheduled for the same days off: Saturday, Sunday, and Monday.

In both the short and long term, this reduction to Shift 4 presumably had merit. In the short term, Shift 4 is always overlapped with another shift, and the impact of reductions on this shift would have the smallest impact. In the long term, the department, under Option 1, is contemplating a three-shift configuration, so gradually reducing one shift and maintaining the personnel integrity of the other three would be important. The reduction in personnel and grouping days off, however, has negative implications both now and in the future.

Presently, Shift 4 officers are off duty on Saturday, Sunday, and Monday, during the hours of 1200 to 2200. This creates a definite shortage of personnel during these times and days. The power of the four-shift, ten-hour patrol staffing plan used by the TPD is that it maximizes the natural overlaps in ten-hour tours. Eliminating this natural overlap weakens the overall strength of the staffing model. A chain is only as strong as its weakest link, and the current patrol staffing plan in place in Troy is only as strong as the overlap created by the stacking of ten-hour tours. Removing one of those

tours for three days on the weekend, therefore, weakens the overall benefit of this model. Examination of the CFS volume by day in 2009 indicates that the selected days off for Shift 4 are three of the least busy days. In this sense, it seems logical that Saturday, Sunday, and Monday were selected. But the weakness this creates to the overall patrol staffing plan warrants that this decision be revisited. Similarly, Saturday, Sunday, and Monday are likely to be among the busiest from a retail shopping perspective. Considering the impact the crime of larceny has on the overall crime rate in Troy, having resources available to deploy during the times that larceny is likely to be most prevalent should be an important consideration.

The TPD recognized the problems associated with reducing one shift and restored personnel to Shift 4 since the ICMA visit. The reduction and realignment of personnel on Shift 4 is an excellent example of both the problems inherent in weakening one shift over another and an illustration of the nimble management present in the TPD recognizing and dealing with issues rapidly.

Additionally, in the long run, consistent with Option 1, reconfiguring the patrol staffing plan to accommodate three shifts should be revisited. If the department is considering maintaining the current ten-hour tour, reducing the number of shifts to three would create an inefficient work schedule. First, three shifts of 17 police officers would likely yield only one shift working at any given time with officers uniformly distributed throughout the day. As in the past, the department would surely analyze CFS demand and assign officers proportionate to this demand, but there would still be a baseline level of personnel necessary on each shift. This baseline would require that each shift remain relatively balanced. The uniform and even distribution of patrol officers throughout the day is inefficient. Furthermore, given the CFS volume already experienced in Troy, removing the built-in overlaps created by the four-shift system and reducing to three shifts will

undoubtedly lead to service delays, CFS backlogs, and an increase in patrol saturation.

Maintaining ten-hour tours and reducing to three shifts would produce approximately six hours of overlap in any given day. Some of this overlap would be dedicated to change of tours coverage, and the rest would be used to address high CFS demand and crime. Presumably, there would be 30 minutes of change of tour coverage on each tour change (90 minutes), leaving four and a half hours for double shift coverage. While it is beneficial to have double coverage, having only four and a half hours presents as many problems as it solves. Identifying the proper four and a half hours to double up leaves many problems unaddressed. The worst possible alternative would be to double cover two hours at the beginning and end of each shift. This method of allocating the double coverage would lead to the most inefficiency in both equipment and manpower and not yield any additional patrol coverage.

To make a three-shift system work requires a reduction in the number of hours worked on a given tour, from ten to eight. While the current patrol staffing plan is superior and should be maintained, any reconfiguration to a three-shift model must reduce the tour length to eight hours per day. This reduction would minimize waste from the overlap of shifts and create additional appearances for each officer. Under an eight-hour-per-day, 40-hour-per-week, 2,080-hours-per-year schedule, officers appear for work 260 times. Under a ten-hour-day, 40-hour-week, 2,080-hour-per-year schedule, officers appear 208 times. Eight-hour tours, therefore, result in 52 additional appearances per officer. The bottom line here is that an eight-hour shift results in a more than 20 percent increase in the number of officers working on any given day.

Reducing the number of hours per shift will require negotiations and perhaps authorization from employee representative groups. It also represents a substantial departure from the current work plan in place in Troy and potentially disruptive to the work schedule enjoyed by incumbent officers.

There appear to be three scenarios to consider:

1. Maintain 10 hour tour lengths, eliminate Shift 4
2. Reduce tour length to 8 hours, eliminate Shift 4
3. Maintain the current staffing plan and gradually reduce each Shift proportionately.

It is recommended that the third option listed above be taken by the TPD. The current staffing plan is far superior for several reasons:

- It allows for greater deployment during the times when officers are needed the most, and fewer officers to be deployed when they are needed the least. Therefore, it is more efficient.
- It comports with the current staffing plan, does not require labor approval, and will be least disruptive organizationally.

**Recommendation:**

**Empanel a Calls for Service Committee in order to evaluate service demands and eliminate non-emergency responses**

In calendar year 2009, the TPD responded to more than 40,000 CFS.

**Exhibit 4** below lists the top 10 categories of the CFS demand as reported by the TPDF. Traffic stops are the most frequent CFS, with more than 5,300. Next is sick cared for, or medical cases, then burglar alarms, traffic crashes—property, animal complaints, miscellaneous, assist citizens, traffic miscellaneous, road hazards, and suspicious vehicles. In 2010, these top ten

CFS combined totaled 22,261 responses, which was more than 55 percent of the approximately 40,000 CFS responded to by the TPD that year.

**Exhibit 4. Three-Year Top CFS Categories**

CRIME-CLASS DESC.	3-Year Top CFS		
	2010	2009	2008
OPEN GENERIC— TRAFFIC STOP	5,173	5,331	6,418
SICK CARED FOR	3,267	3,255	3,181
BURGLARY ALARM	3,003	2,767	3,212
TRAFFIC CRASHES—PROPERTY DAMAGE	2,279	2,019	2,246
ALL OTHER	1,805	1,840	1,934
TRAFFIC MISC.	1,585	1,387	1,694
ASSIST CITIZEN	1,379	1,596	1,698
ANIMAL COMPLAINT	1,351	1,909	1,807
ROAD HAZARD	1,242	1,192	1,381
LIQUOR INSPECTION	1,195	998	1,147

Further inspection of **Exhibit 4** also reveals a very stable pattern of calls over the last three years. In each of the three years listed, traffic stops, sick cases, burglar alarms, property damage traffic accidents, and a category referred to as “all other” appear in the same order.

The quantity and quality of these CFS lend to closer scrutiny and enormous potential for operational efficiencies. Four of the top ten calls—sick cases, burglar alarms, property damage traffic accidents, and animal complaints—are types of CFS that do not necessarily require the response of a sworn police officer. For example, at motor vehicle accidents only involving

property damage, the police role is largely administrative: preparing and filing reports. Similarly, at sick and injury cases, police officers often do nothing more than observe a person being transported to the hospital. Industry experience also tells us that greater than 98 percent of all burglar alarms are false alarms and that CFS regarding animal complaints are typically only nuisance-type calls without any danger. The bottom line here is that the majority of CFS dispatched to officers in the TPD could potentially be eliminated from their day-to-day requirements.

In 2010, the TPD responded to 3,003 burglar alarms, equating to more than 3,000 man hours on this one type of call (or more than 1 percent of all personnel resources used in the department), as it requires two officers to respond. The department needs to address this problem immediately. A double call verification program is sweeping the county. Currently, the alarm industry is working with police and sheriff departments to reduce alarm types of calls.

Based on this ICMA review, contact information was provided to the TPD with the national alarm industry. This industry is a strong advocate in developing ordinances and procedures to address police responses to false alarms and will work closely with any agency exploring this issue. It should be noted that nationwide, 98 percent of alarm calls are false and caused by user error that can be addressed significantly by alarm management programs. In addition to proposed personnel cutbacks, alarm reduction needs to be aggressively addressed. Adopting an alarm callback program has the potential to reduce CFS volume by more than 2,500 CFS, or roughly 6.25 percent.

In 2010, the TPD responded to 3,267 sick cared for CFS. Again, the need for the response of a sworn police officer here is questionable. In emergency cases, sworn officers can be the difference between life and death, but in

routine medical cases, police officers are not needed. Police departments across the nation are omitting the routine sick call from the police responsibility. Instead, CFS in this general category is triaged between emergency and routine by 911 call-takers, and emergency medical personnel are trained when the involvement of the police is necessary. The combination of these two policies regarding sick cases can shed more than 3,000 CFS from the patrol workload, or greater than 8 percent.

Similarly, animal complaints and property damage traffic crashes represent almost 10 percent of the total CFS workload. Here as well, police departments across the nation are removing these types of calls from the emergency police responsibility.

These four categories of CFS represent almost 25 percent of the patrol CFS workload in Troy, and the need for a police response at the large majority of these incidents is not likely necessary. As the department continues to reduce personnel headcount, these categories of CFS must be carefully examined and a determination must be made whether or not a police response should be continued. It is strongly recommended, therefore, that a committee be established by the TPD that includes all the principal stakeholders in this process with the responsibility of evaluating the CFS workload with the eye toward reducing and/or eliminating non-emergency CFS response. This committee should begin with these four major categories of CFS response and formulate the response (or non-response) protocols for these assignments.

ICMA recommends that responses to property-damage-only traffic accidents be eliminated from CFS response; an alarm callback system be instituted; and 911 call-takers, dispatchers, and EMS personnel be trained to require a police response in only emergency situations regarding sick cases and animal complaints.

With this reduced CFS volume, other opportunities arise for deployment of patrol resources in the TPD. These opportunities must be explored in context with this workload reduction, and as other units in the department become eliminated and/or consolidated, it will be incumbent on officers working routine patrol to pick up the slack and fulfill these obligations.

#### **D. Patrol Deployment and Workload**

The patrol function is often considered the backbone of modern policing. Patrol officers are the most visible, provide the most direct services to the public, and generally make up the largest share of a department's budget. Properly staffing this function is a complex endeavor that balances demand, resources, and a mix of policing philosophy and political dynamics. The ICMA team conducts extensive analyses of the C.A.D. system data and on-site observations to make several recommendations regarding this important function in the TPD.

#### **Recommendations:**

- **Staffing allocations for patrol, as a percentage of total sworn officers, under Option 1 are feasible but require shift realignment (actually maintaining current shifts with personnel staffing level under Option 1).**
- **Current demand, as a function of public CFS, is met by the current deployment, and all things being equal, will also be met by the proposed staffing under Option 1.**
- **TPD management must look very carefully at the time spent by officers on patrol. Officers spend a large amount of time "out of service." This out of service time may be a reflection of the cumbersome report writing process, a lack of supervision, a lack of administrative capability, numerous community policing and**

**administrative responsibilities, and/or a combination of all of these scenarios.**

- **According to the CAD data, officers spend almost little time performing “directed patrol.” (paper logs indicate that directed patrol is performed) As the TPD reduces agency headcount patrol operations will be relied upon to perform directed patrol and other enforcement operations previously performed by specialized units. It will be essential for Team-led enforcement by basic patrol officers (small groups of officers led by a supervisor directed at a specific crime or disorder condition) to replace the activity of specialized units.**

Although some police administrators suggest that there are national standards for the number of officers per thousand population, no such standards exist. The International Association of Chiefs of Police (IACP) states that ready-made, universally applicable patrol staffing standards do not exist. Furthermore, ratios, such as officers-per-thousand population, are inappropriate data to basis staffing decisions.

According to *Public Management* magazine, “A key resource is discretionary patrol time, or the time available for officers to make self-initiated stops, advise a victim in how to prevent the next crime, or call property owners, neighbors, or local agencies to report problems or request assistance. Understanding discretionary time, and how it is used, is vital. Yet most police departments do not compile such data effectively. To be sure, this is not easy to do and, in some departments may require improvements in management information systems.”<sup>1</sup>

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<sup>1</sup> John Campbell, Joseph Brann, and David Williams, “Officer-per-Thousand Formulas and Other Policy Myths,” *Public Management* 86 (March 2004): 22–27.

Staffing decisions, particularly in patrol, must be based on actual workload. Only after the actual workload is analyzed can a determination be made as to the amount of discretionary patrol time that should exist, consistent with the community's ability to fund it.

To understand *actual workload* (the time required to complete certain activities) it is critical to review in detail total reported events as separate events into different categories, such as directed patrol, administrative tasks, officer-initiated activities, and citizen-initiated activities. Doing this analysis allows identification of activities that are really "calls" from those other events.

Understanding the difference between the various types of police department events and the staffing implications is critical to determining actual deployment needs. This portion of the study looks at the total deployed hours of the police department with a comparison to the time being spent to currently provide services.

In general, a "Rule of 60" can be applied to evaluate patrol staffing. This rule contemplates that 60 percent of the sworn officers in a department should be dedicated to the patrol function (patrol staffing), and that no more than 60 percent of their time be committed to CFS (patrol saturation). This is not a hard-and-fast rule, but a starting point for discussion on patrol deployment. Resource allocation decisions must be made from a policy and/or managerial perspective through which costs and benefits of competing demands are considered.

This Rule of 60 for patrol deployment does NOT mean the remaining 40 percent of time is "down-time" or break time. It is a reflection of the extent that patrol officer time is "saturated" by CFS. This should also be committed time, not committed due to the demands for CFS, but committed to management-directed operations. This is a more focused use of time and

can include supervised allocation of supervised allocation of patrol officer activities towards proactive enforcement, crime prevention, community policing, and citizen safety initiatives, and also provide ready and available resources in the event of a large-scale emergency.

From an organizational standpoint, it is important to have uniformed patrol resources available at all times of the day to deal with issues such as proactive enforcement and community policing. Patrol is generally the most visible and most available resource in policing and the ability to harness this resource is critical for successful operations. From an officer's standpoint, once a certain level of CFS activity is reached, the officer's focus shifts to a CFS-based reactionary mode. Once a threshold is reached the patrol officer's mindset begins to shift from one that looks for ways to deal with crime and quality life conditions in the community, to one that continually prepares for the next CFS. After a point of CFS saturation officers cease proactive policing and engage in a reactionary style of policing. The outlook becomes "why act proactively when my actions are only going to be interrupted by a CFS." Uncommitted time is spent waiting for the next call. Sixty percent is believed to be the saturation threshold.

Inspection of the organizational chart provided by the TPD for four years, from 2010 to 2014, demonstrates an interesting development under Option 1. The following table represents the relationship between patrol deployment and total staffing in the TPD over these four years.

### Exhibit 5. Four-Year TPD Patrol Staffing

	<b>2010-2011</b>	<b>2011-2012</b>	<b>2012-2013</b>	<b>2013-2014*</b>
Total Sworn Officers	123	123	108	97
Officers on Patrol	66	66	61	61
Percentage of Patrol Officers to Total Sworn	53.7	53.7	56.5	62.9

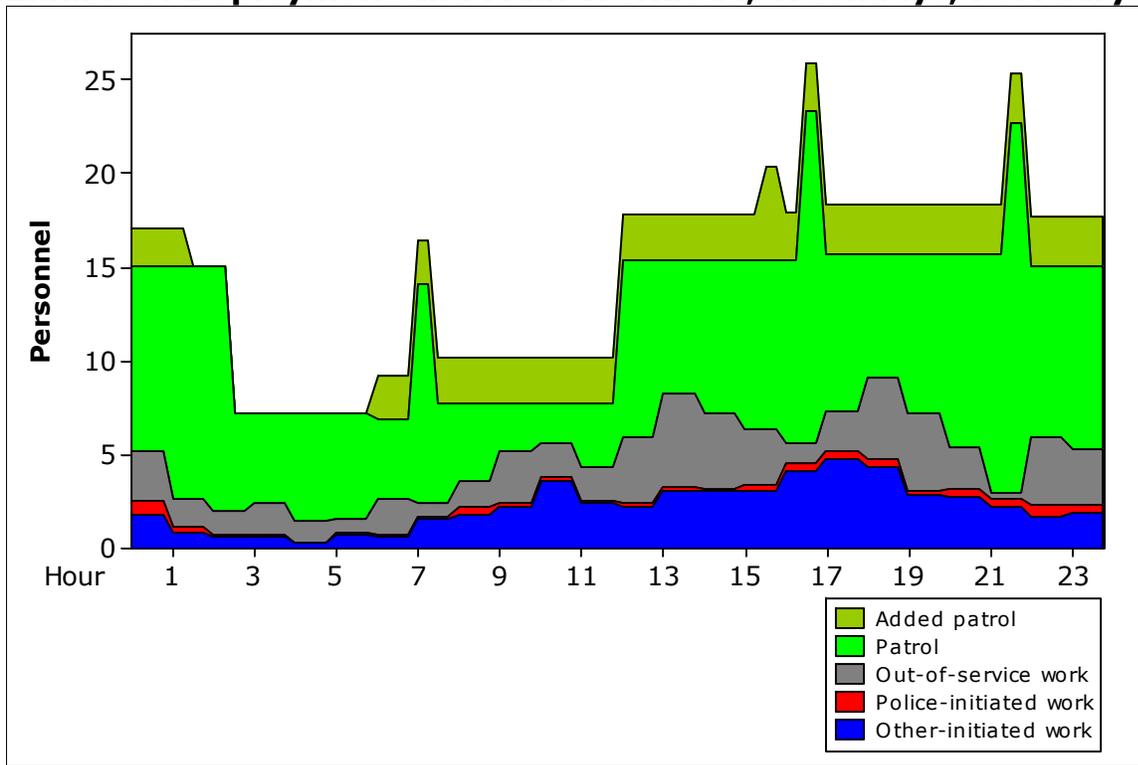
Note: \*ICMA-recommended agency size

For the purposes of this analysis, "officers on patrol" refers to sworn officers of all ranks in shifts 1, 2, 3, and 4. In 2010, Shift 1 had one lieutenant, two sergeants, and 15 police officers, for a total of 18. The total number of "officers on patrol" in 2010-2011 under this calculation is 66. These 66 officers represent 53.7 percent of all the sworn police officers in the TPD. According to the Rule of 60, this would indicate that too few officers are on patrol, or that too many officers are assigned to other duties. Examining the TPD downsizing plan, referred to as Option 1, indicates that the total number of sworn officers in the TPD will shrink to 93 in 2013-2014 and the number of officers on patrol will shrink to 59. The ratio of 59/93 results in 63.4 percent deployment of sworn officers to patrol related activities. Option 1, therefore, actually aligns the staff in the TPD more in line with acceptable staffing models than the current scenario. In other words, having 59 out of 93 police officers assigned to patrol functions is an efficient deployment of these resources. This allocation of resources, while adhering to the Rule of 60, must be taken in context with community demand. If demand is greater than manpower this allocation must be adjusted.

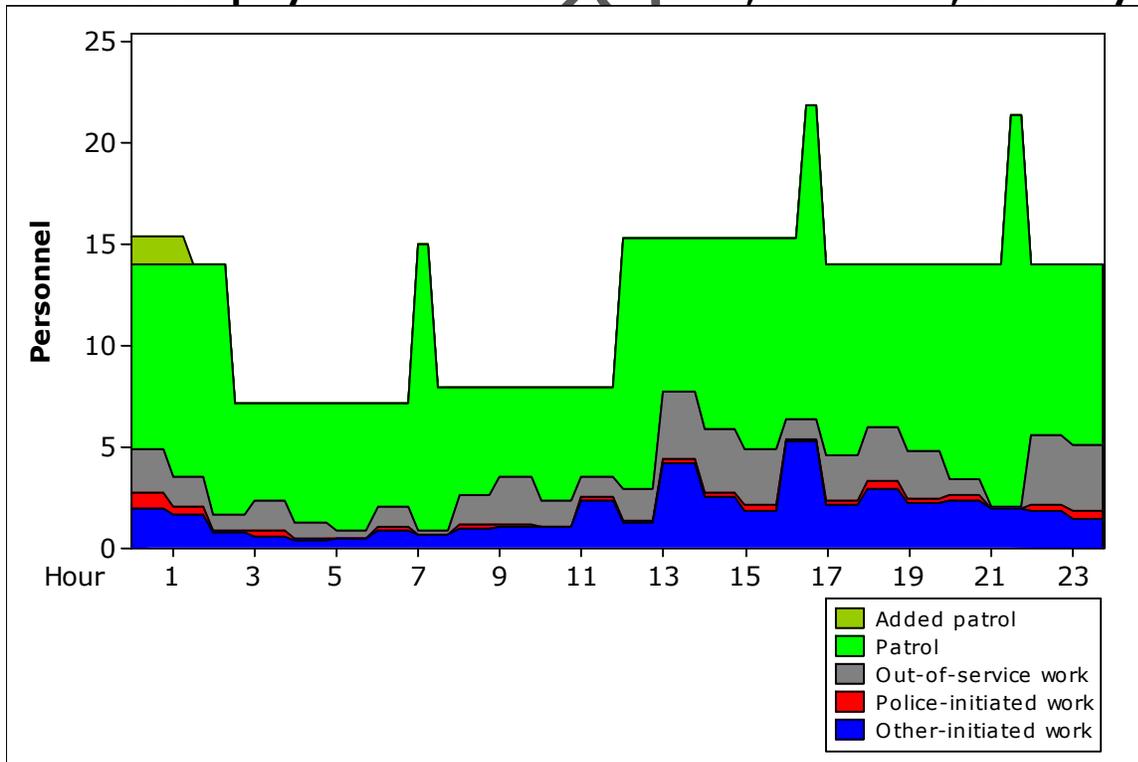
The following four exhibits display the relationship between CFS demand and personnel deployment, or patrol saturation. This information is useful in evaluating the second part of the "Rule of 60." The second part of the rule requires that the total manpower deployed at a given hour be no greater than 60 percent of total manpower available. For the reasons stated previously, this is the threshold that shifts the patrol officer's focus from proactive to reactive patrol.

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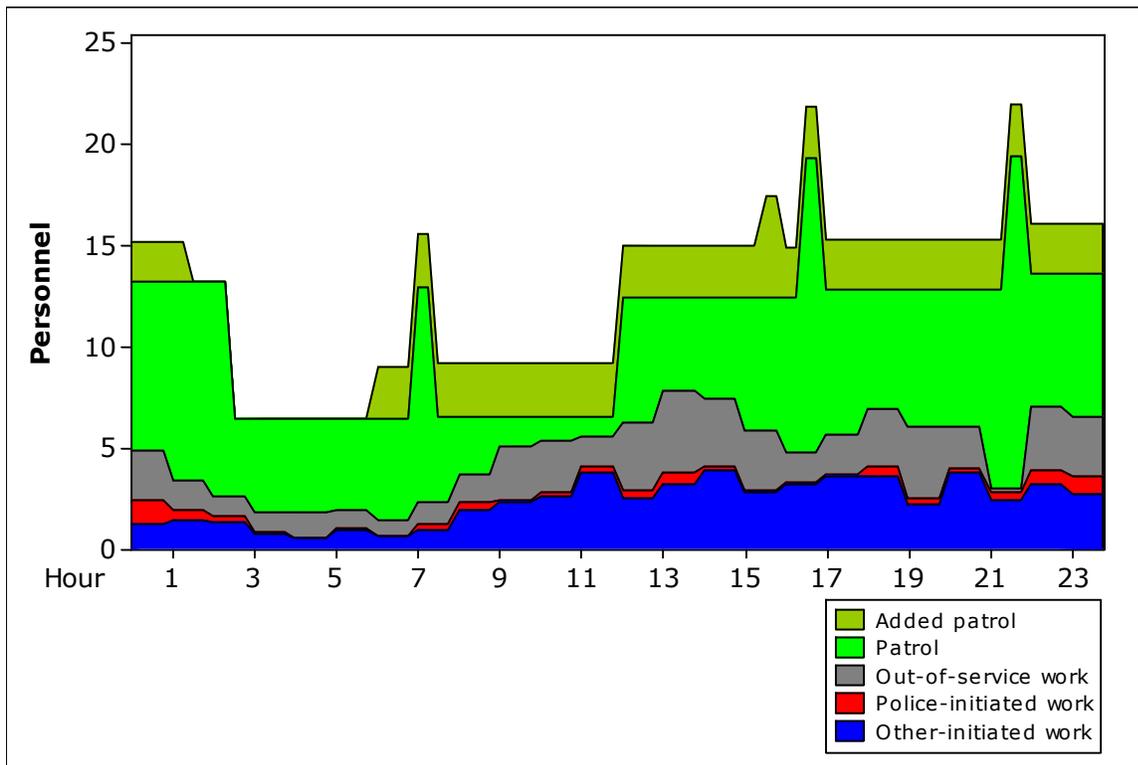
**Exhibit 6. Deployment and Main Workload, Weekdays, February 2010**



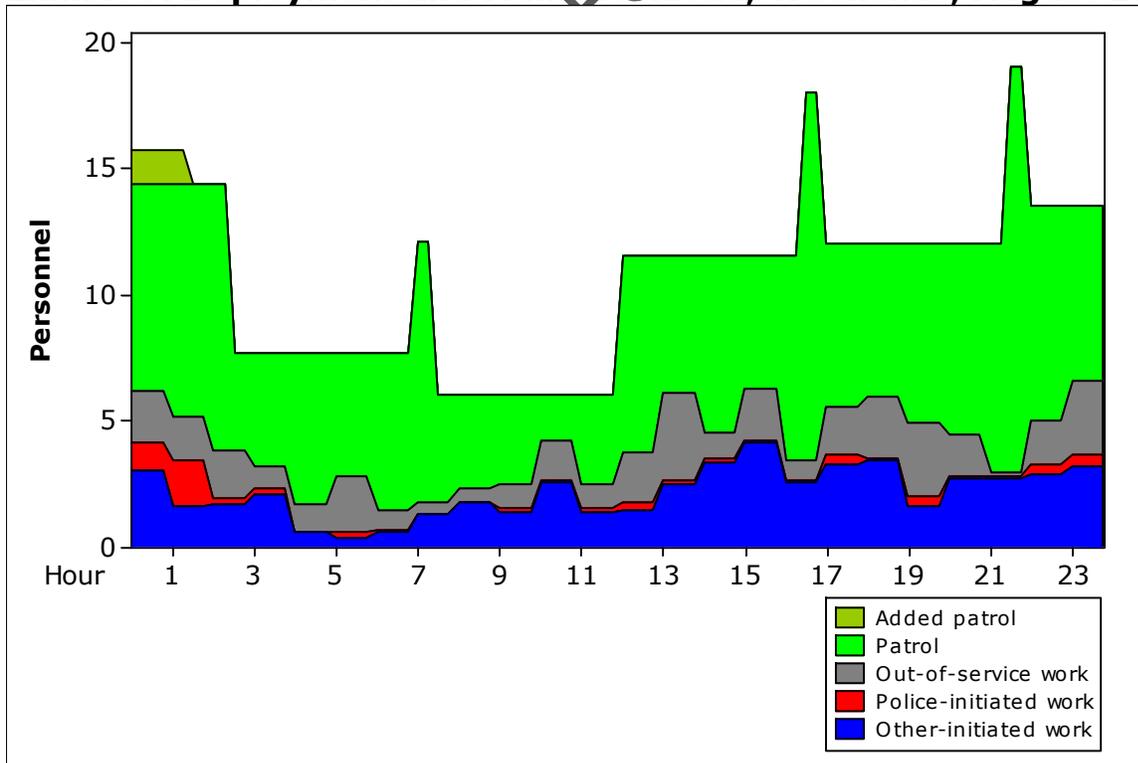
**Exhibit 7. Deployment and Main Workload, Weekends, February 2010**



**Exhibit 8. Deployment and Main Workload, Weekdays, August 2010**



**Exhibit 9. Deployment and Main Workload, Weekends, August 2010**



The blue, red, and gray shaded areas in the exhibits represent other-initiated work (911 CFS), police-initiated work (traffic and directed patrol), and out-of-service work (administrative and personal) respectively. Other-initiated work describes CFS from the general public from the 911 system. Police-initiated work is activity generated by the officers themselves NOT in response to a 911 call. Police-initiated activities could be traffic-related, directed patrol, administrative assignments, prisoner transport and so on. Total work is the sum of other-initiated and police-initiated work (Section VI of this report goes into great detail of the exact elements of this information). The combined total of these three areas represents total work.

It should be noted that the ICMA data analysis relied exclusively on data that was supplied electronically by CLEMIS. This included all calls for service from the CAD module, supplemental data to the calls for service from the Records Management module, and activity data from the E-Activity Log module. In addition to the data extracted from CLEMIS, the TPD uses Daily Activity Logs that record work assignments not included in the CAD system and therefore not included in the data extracted through CLEMIS. These assignments can be included under "directed patrol" type activities and potentially influence overall workload. The exact amount of this workload demand is undetermined, but an important consideration in evaluating workload and staffing.

The dark green areas in the exhibit represent available patrol manpower, and the light green areas represent added patrol (traffic and directed patrol units). The total under the dark and light green areas represent available manpower.

The four exhibits represent the manpower and demand during weekdays and weekends during the months of February and August. Examination of these four exhibits permits exploration of the second prong of the Rule of 60.

Again, the Rule of 60 examines the relationship between total work and total patrol, and to comply with this rule, total work should be less than 60 percent of total patrol.

These exhibits indicate that the average patrol saturation levels never exceed 60 percent. The only time when patrol saturation exceeds 60 percent is between the hours of 11 a.m. and noon in August, when the patrol saturation reaches 70 percent, but then quickly recedes. In fact, patrol saturation levels average approximately thirty-five percent and fall to extremely low level during the overnight hours. Essentially, the bulk of patrol officer time in Troy is “non-committed” and available for a greater focus on directed-patrol, proactive patrol, and community policing activities.

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## Exhibit 10. Patrol Saturation Levels

	<b>February 2010</b>		<b>August 2010</b>	
	Weekday	Weekend	Weekday	Weekend
<b>Average Deployment (Officers per Hour)</b>	15	12	12.9	10.67
<b>Average Workload</b>	4.8	3.6	4.7	4.0
<b>Patrol Saturation (Workload/Deployment)</b>	32%	30%	36.5%	37.5%
<b>MAX Patrol Saturation</b>	55%	50%	60%	70%
<b>Hours Maximum Patrol Saturation</b>	10 to 11 a.m.	1-2pm	11 a.m. to noon	10 to 11 a.m.

**Exhibit 10** shows that on an average weekday in February, there were approximately 15 officers working each hour. The average workload, combining other-initiated, police-initiated, and out-of-service work, is 4.8 officers per hour, for a patrol saturation of 32 percent. In other words, available resources during the average weekday in February 2010 were three times greater than demand.

These data also reveal several other interesting pieces of information that are important in evaluating patrol deployment in Troy. When examining only other-initiated work, or CFS demand from the public, the four exhibits show that resources are far greater than demand. In fact looking at only patrol availability and CFS demand, there is an average of more than 6 times more officers than demand. Clearly, the TPD has room for staffing reductions on patrol and can handle the workload in the face of these reductions. Keep in mind also, that the percentage of officers on patrol for these periods is approximately 54 percent. This indicates that based on CFS volume the TPD has more than enough officers on patrol, and as a percentage of the entire department, this allocation is smaller than organizational norms. The combination of these two prongs in the Rule of 60 lead to the conclusion that

the TPD is overstaffed from a patrol perspective, and as an organization. In other words, far more resources exist than the current demand for these resources.

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## Exhibit 11. Basic Patrol Manpower and Patrol Saturation—February 2010

Manpower				Workload							
Hour	February Basic Patrol			February Weekdays					Patrol Saturation	CFS/BPM	OOS/BPM
	Weekday	Weekend	Overall	Other	Self	OOS	DirPat	All			
0.00	15.05	14.00	14.75	1.7	0.7	2.6	0.0	5.1	34.4	11.4	17.7
1.00	15.05	14.00	14.75	0.8	0.3	1.5	0.0	2.6	17.4	5.2	9.9
2.00	15.05	14.00	14.75	0.6	0.0	1.3	0.1	2.0	13.4	3.8	8.8
3.00	7.15	7.13	7.14	0.5	0.1	1.7	0.0	2.3	32.2	7.2	23.2
4.00	7.15	7.13	7.14	0.2	0.0	1.1	0.0	1.4	19.4	3.3	15.9
5.00	7.15	7.13	7.14	0.6	0.1	0.7	0.0	1.4	20.2	8.9	9.6
6.00	6.81	7.13	6.90	0.5	0.1	2.0	0.0	2.6	37.1	7.8	28.3
7.00	14.10	15.00	14.34	1.5	0.1	0.7	0.0	2.3	16.3	10.7	4.8
8.00	7.65	7.88	7.71	1.8	0.4	1.4	0.0	3.5	45.3	22.9	17.6
9.00	7.65	7.88	7.71	2.2	0.2	2.8	0.0	5.2	66.9	28.1	35.8
10.00	7.65	7.88	7.71	3.5	0.2	1.8	0.1	5.6	72.4	45.8	23.2
11.00	7.65	7.88	7.71	2.3	0.1	1.8	0.0	4.2	55.1	30.5	23.5
12.00	15.35	15.25	15.32	2.2	0.1	3.5	0.0	5.9	38.2	14.2	23.1
13.00	15.35	15.25	15.32	2.9	0.3	5.0	0.1	8.3	54.2	19.2	32.4
14.00	15.35	15.25	15.32	2.9	0.2	4.0	0.1	7.2	47.3	19.2	26.0
15.00	15.35	15.25	15.32	3.0	0.3	2.9	0.0	6.3	41.1	19.7	19.0
16.00	15.35	15.25	15.32	4.0	0.5	1.1	0.0	5.6	36.4	26.2	7.2
17.00	15.70	14.00	15.21	4.7	0.4	2.1	0.0	7.2	47.5	30.0	14.1
18.00	15.70	14.00	15.21	4.2	0.4	4.5	0.1	9.2	60.4	27.0	29.3
19.00	15.70	14.00	15.21	2.7	0.3	4.1	0.0	7.2	47.2	17.5	27.1
20.00	15.70	14.00	15.21	2.6	0.5	2.2	0.0	5.3	34.9	16.7	14.4
21.00	15.70	14.00	15.21	2.1	0.4	0.3	0.0	2.8	18.6	13.7	1.7
22.00	15.05	14.00	14.75	1.6	0.6	3.6	0.0	5.9	40.0	11.0	24.4
23.00	15.05	14.00	14.75	1.8	0.5	3.0	0.0	5.3	35.7	11.8	20.1
Average	12.65	12.14	12.50	51.2	7.0	55.5	0.6	114.3			

**Exhibit 11** provides data relative to the basic patrol manpower deployment and workload during February 2010 broken down by hour of the day.

According to the exhibit between the hours of midnight and 1 a.m. (the 0.00 hour), patrol saturation was 34.4 percent. This indicates that 34.4 percent of the available resources in that hour were committed to all workload. During this hour total workload was 5.1 hours, and is the combination of 1.7

officer/hours dedicated to "other-initiated" work, or CFS, 0.7 officer/hours to "police-initiated" work, 2.6 officer/hours of "out-of-service" activities, and 0.0 officer/hours of directed patrol. The far right columns display patrol saturation as a function of actual CFS (CFS/BPM), and "out-of-service" time (OOS/BPM). The column labeled CFS/BPM is the manpower dedicated to calls for service in that hour of the day compared to the basic patrol manpower available. In the 0.00 hour, midnight to 1 a.m., 11.4 percent of the available basic patrol manpower is committed to CFS. Similarly, 17.4 percent of the available basic patrol manpower is dedicated to "out-of-service" activities.

Inspection of these columns highlights several very important points. First, patrol saturation as a function of calls for service and basic patrol manpower is very low. The highest patrol saturation for basic patrol peaks at 45.8 percent at 10 a.m. and reaches its lowest point of 3.3 percent at 4 a.m. This demonstrates that public demand for patrol resources is easily met by the current deployment and allocation of resources in Troy.

Second, the furthest column to the right displays the amount of patrol resources dedicated to "out-of-service" time. The percentage of officer/hours spent out of service ranges from a low 1.7 percent at 9 p.m. to a high of 35.8 percent at 9 a.m. This is a very high percentage of officer/hours. In fact, "out-of-service" time is the highest category of workload time for officers in Troy. In other words, officers spend more time out of service than on any other activity during the day. Officers averaged approximately 18 percent of their available time out of service during February 2010.

On average during the months studied by ICMA, out-of-service workload amounted to approximately 45 percent of the entire workload in the TPD. Out of service activities include the following: court, lab work, community policing activities, desk duty, follow up, vehicle fueling, inspection and maintenance; public relations, informal training, K-9 training, special details,

meal breaks and other administrative activities. Similarly, inspection of **Table 6** in the data analysis section of the report (Primary Unit's Average Occupied Time, by Category) indicates that it takes more than 60 minutes to handle one vehicle accident. It takes more than 64 minutes to handle the report of a crime, and takes 54 minutes to handle a sick/injury case. In general, one of the reasons for such protracted delays is the inordinate amount of time required to complete the paperwork associated with these calls. Further inspection of Table 6 also shows numerous other calls that take lengthy times to process.

Anecdotal accounts indicate that the CLEMIS system is partially responsible for these reporting delays. Officers, on multiple occasions, explained to the ICMA team that this system is cumbersome at best and eats up a lot of patrol time. While this may be accurate, the reality is also that the demand for TPD patrol officers' service is not high and officers on patrol have the luxury of taking their time to complete reports out-of-service. As the demands for service increase, or the number of officers on patrol decreases this out of service time will be a luxury that the TPD can no longer afford. A mechanism must be identified to reduce the time spent on administrative and other out-of-service activities. Either a clerical and/or administrative capacity must be built to support officers in completing paperwork, or IT programming remedies to make CLEMIS more efficient, or more proactive supervision to shorten the time spent performing administrative duties, or a combination of all three, must be explored. It is strongly recommended that the TPD empanel a committee to examine this problem, and develop a plan to reduce the amount of time spent performing administrative tasks.

Lastly, the "directed patrol" column warrants discussion. Directed patrol is defined as time spent on crime, disorder, and quality of life conditions in the community. Prevailing research indicates that directed patrol by uniformed officers in "hot spots" of crime and disorder can have a substantial impact on

these conditions. According to the data presented in Exhibit 6, officers in Troy spent only 0.6 officer/hours per day, or roughly one-half of one percent of committed time on this activity. This amount of time, or absence of meaningful time, indicates that the basic patrol function in Troy is entirely reactive. Officers in the TPD seemingly spend most of their committed time on administrative tasks, a smaller amount of time on CFS from the public, and almost no time on discretionary crime and disorder preventative patrol. This observation has very important implications for the TPD as the agency reduces headcount and eliminates specialized positions. Officers assigned to the basic patrol function will have to pick up the slack and use their discretionary time more wisely and more productively. It is recommended that the Commander of Patrol Operations work very closely with the Intelligence function of the TPD to identify targeted hot spots, crime-prone locations, and criminal recidivists. This information must then be used by patrol supervisors as the basis of team-led enforcement and directed patrol activities. The Rule of 60 contemplates that no more than 60 percent of an officers' time on patrol be dedicated to CFS response. The balance of the time should be dedicated to directed patrol and targeted enforcement. It is incumbent upon the supervisory corps of the TPD in the Patrol Division to ensure that this 40 percent discretionary time is maximized. As specialized units are eliminated, the department must embrace a generalist approach to enforcement, and directed patrol, team-led enforcement by the basic patrol units, and an active and engaged supervisory corps will be central to the success of the entire TPD.

Based upon the data analysis of the patrol staffing plan recommended for the TPD, concrete recommendations can be made for both patrol and agency staffing. These recommendations incorporate the workload demands and the need for organizational effectiveness in other non-patrol critical functions.

Utilizing the workload demands and employing the patrol saturation component of the Rule of 60, total manpower requirements can be determined. Below is a list, based on the 60 percent rule and current demand, of the recommended shift starting times and number of officers required to staff each shift.

UNEDITED DRAFT - FOR DISCUSSION ONLY

**Exhibit 12. Shift Personnel Deployment Recommendations**

<b>Shift Number</b>	<b>Time</b>	<b>Lieutenants</b>	<b>Sergeants</b>	<b>Officers</b>
1	0600x1600	1	2	16
2	1000x2000		2	10
3	1600x0200		2	10
4	2000x0600	1	2	14
	TOTAL	2	8	50

UNEDITED DRAFT - FOR DISCUSSION ONLY

According to **Exhibit 12**, the patrol staffing deployment for the TPD would entail four shifts starting at 6 a.m., 10 a.m., 4 p.m., and 8 p.m. These shifts would be staffed with 16, 10, 10, and 14 officers, respectively. Supervision of these shifts is recommended at 1 lieutenant and 2 sergeants for shifts 1 and 4, and 2 sergeants for shifts 2 and 3. The 50 police officers contemplated by this deployment recommendation compares exactly to the proposed officer headcount contemplated under Option 1. This deployment, however, maintains the four ten-hour shifts and is much superior from an efficiency perspective.

When this recommended staffing plan is taken in context with the recommendation to reduce CFS volume through elimination of response categories, even further reductions can be realized. Remember, ICMA recommends that a thorough and deliberate process be engaged to reduce CFS demand that could potentially eliminate 25 percent of CFS workload. Reducing this workload will undoubtedly lead to further a further reduction of patrol staffing to even lower levels described in **Exhibit 12**.

Using the deployment staffing recommendations provided above, the first prong of the Rule of 60 can be employed to determine appropriate agency staffing levels. It must be remembered that this process is not a hard-and-fast rule, but a benchmark within which to examine agency staffing. According to the Rule of 60, the 58 sworn officers assigned to patrol operations should represent approximately 60 percent of the total agency sworn officer headcount. Using this calculation, total agency headcount for the TPD should be approximately 97 officers. This figure is four officers greater than the proposed headcount of 93 detailed under Option 1.

In conclusion, the reduction in overall personnel staffing detailed under Option 1 for the TPD is feasible. Given a reduced workload, the personnel staffing becomes easier, and staffing decision with respect to non-patrol

functions can become more robust. In other words, the total investment of personnel the TPD makes in patrol officers assigned to CFS response can be reduced to levels contemplated in Option 1, or even lower. Combined with a triage in CFS demand, reduced and more efficient administrative tasks, focused leadership, and a renewed sense of generalist policing can position the patrol function of the TPD in a leaner and much more efficient operation. Using these efficiencies can create opportunities to shift personnel out of the patrol function into other areas of police operations. The following recommendations are directed at different options the TPD might consider with respect to other non-patrol police functions.

**Recommendation:**

**Eliminate the Traffic Safety Unit**

ICMA recommends that the Traffic Safety Unit be eliminated. As the agency reduces personnel headcount it is imperative that specialization be pursued as a last resort. In general, specialization in an organization is necessary when there are special skills, training, abilities, or competencies that require a dedicated cadre of personnel. Police organizations often look to traffic units as the useful specialization of the patrol function where officers can dedicate time and energy to traffic related problems and traffic enforcement. As personnel levels are reduced in the TPD, a specialized traffic unit is a luxury that cannot be afforded. Traffic control and enforcement in Troy must be generalized to all patrol personnel. It is recognized that all patrol officers, including traffic unit officers, performed traffic enforcement, but under personnel levels detailed in Option 1 a special traffic unit must be eliminated, officers transferred to patrol, and patrol shifts must bear the responsibility of this critical function.

**Recommendation:**

## **Transfer the Community Services Section to the Operations Division**

ICMA recommends that the Community Services Section consisting of 1 sergeant and 3 police officers be transferred to the Operations Division. The Community Services Section has been an extremely active one. The section offers over 200 programs. The community services function maintains 10 major responsibilities which include an extremely impressive repertoire of services performed to the Troy community. Under the department's proposed Option 1 plan, this entire function would be eliminated. The elimination of this very visible function will have an extremely noticeable impact on the Troy community. The type of events that have been sponsored by the police department are high profile and will no doubt generate some type of reaction by the community as the events cannot be absorbed by another entity in the city. The Community Services Section must continue and possibly broaden its duties and responsibilities in the general area of crime prevention. The one crime prevention officer assigned to the Community Services Section performs a critical function and needs to be supplemented with additional resources.

As the home of two major retail locations, crime prevention must be a high priority in Troy. As discussed previously, the crime of larceny is the most prevalent serious crime in Troy. Larceny is also the most difficult to detect in progress and investigate after the fact. An expanded crime prevention program directed at larceny, as well as other serious crimes, is essential. The TPD must dedicate additional full-service and dedicated staff to this critical function. Relationships with retail security must be maintained and leveraged to attack larceny aggressively in the shopping centers and in the community at large. Proactive community services is not simply good public relations, it is effective crime prevention. A combination of education and prevention efforts aimed at drug and substance abuse; efforts aimed at educating and communicating with the community in the media and other

resources on crime and crime trends; providing programs that address societal trends that can negatively impact youth and families; presenting programs aimed at preventing the victimization of senior citizens and others who are vulnerable in the community; as well as effective and traditional crime prevention. The TPD must enhance this capacity and ensure the current programs not only continue but flourish. Furthermore, placing this unit under the operations division will elevate its prominence in the organization and more closely link it with patrol operations. Tactical patrol and effective crime prevention directed at problematic persons and locations under the direction of the division commander will position the TPD to make the most out of a reduced workforce.

Other recommendations contained later in this report call for the elimination of the Juvenile Unit. With the elimination of the Juvenile Unit comes a loss of dedicated contacts with the local schools in Troy as well as a mechanism to investigate and monitor juvenile offenders in Troy. Under the spirit of consolidation of police responsibilities, the "old" mission of the Juvenile Unit could be replaced by a reinvigorated and newly tasked Community Services Unit. Essentially, this new Community Services Unit would have the responsibility of liaison with the retail shopping centers, schools, community groups, and other important community stakeholders in Troy. Placing this unit organizationally under the patrol commander links it directly to the uniformed and most visible and personnel-concentrated division in the agency. The Community Services Unit, therefore, would multi-task various responsibilities on a day-to-day basis and be able to draw from the patrol staff to assist in completing their mission. Under this model community services is not administrative, but part-and-parcel of the operations of the TPD.

### **III. Investigative Services Division**

The criminal investigation function is vested with the responsibilities ordinarily associated with non-uniformed investigation and patrol activity. The investigators conduct follow-up on information gathered by the uniformed patrol force. The investigators should also be the point of contact, working closely with investigators from county, state, and federal agencies.

The Investigative Services Division (ISD) is currently comprised of one captain, one lieutenant, five sergeants, 19 police officers, and 13 police service aides. The ISD is broken down by the following functions: Criminal Investigations Unit, a Juvenile Unit, a Criminal Intelligence Unit, a Special Investigations Unit, a Lock-Up Operations Unit, and a Property Unit.

The Criminal Investigation Unit's primary responsibility is the review and investigation of assigned cases. It is composed of two sergeants and seven investigators. The unit is responsible for the follow up of cases that warrant investigation. One of the investigators assigned to the ISD is primarily dedicated toward in-custody warrant preparation and arraignments.

The Special Investigations Unit is comprised of one sergeant and two investigators from Troy, and two investigators from neighboring jurisdictions. The Unit is responsible for all covert narcotics and vice investigations, and the targeting of career criminals or suspects in high-profile crimes. The arrest of those individuals most-often has an immediate impact on area crime trends.

The Juvenile Unit has one sergeant and three police officers its main focus is performing school resource responsibilities. The officers also handle other juvenile crime as needed and are subject to recall for juvenile related crimes.

The Criminal Intelligence Unit has one sergeant and seven police officers currently assigned. The tasks of the unit are mixed. Two investigators focus in on crime analysis, and preparing criminal intelligence bulletins. Other members of the unit at times will assist the SIU Unit if shortages or needs warrant. The unit is also involved in the outsourcing of Troy personnel to countywide/federal task forces that include assignments to DEA, ICE, and the Oakland County Net Unit or Narcotics Enforcement Team. The Criminal Intelligence unit, through its external participation, provides the majority of all criminal asset forfeiture dollars that are derived from these partnerships. Chief Mayer emphasized the importance of these funds to make up for budget reductions and to use these funds for training, equipment and technology acquisitions.

The Lock-up Operations Unit is responsible for the intake processing and housing of persons arrested by the police. The unit consists of 12 police service aids and is supervised by a sworn sergeant; it also has a sworn officer assigned who arraigns prisoners, serves subpoenas, executes writs, and maintains the sex offender registry compliance. The unit operates 24/7. The unit is equipped to feed and house prisoners up to 72 hours.

The Property Unit is responsible for storing and securing evidence to include money, firearms, narcotics, and found property. The Property Unit has only one Police Service Aide assigned. The division's lieutenant, and one of the division's sergeants along with one other civilian employee assist the property public service aide in property when the employee is sick, on vacation or after hours if necessary.

## **Recommendations:**

- **Rename the Investigative Services Division the Investigative and Administrative Division and assume most the duties and responsibilities of the Professional Standards and Community Relations Division.**
- **Streamline and improve the warrant process**
- **Recall and reassign all officers assigned to specialized task forces.**
- **Transfer the Directed Patrol Unit to this division**
- **Consolidate functions of the special investigations unit and the criminal intelligence unit.**
- **Eliminate the juvenile unit**

The TPD recommendations regarding the Investigative Services Division under Option 1 call for the following. The elimination of the Juvenile Unit, thus reducing one sergeant and four police officer positions. The elimination of one sergeant supervisor over the Investigation Unit and the elimination of the entire Criminal Intelligence Unit except one investigator position to one of the outside task force positions (Drug Enforcement Agency). This position maximizes asset forfeiture money back to the police department.

Therefore, with all projected cutbacks, the division is scheduled to lose 12 sworn positions over the next three years to comply with Option 1 of the proposed departmental wide cutbacks.

With the elimination of many personnel assigned to the Professional Standards & Community Relations Division, it is recommended that this division, and the captain position be eliminated. The duties and responsibilities would be reassigned to the new Investigative and Administrative Services Division. This new division would be commanded by

a captain, and one lieutenant would be responsible for investigative services, and another lieutenant responsible for professional standards and administration. This new organizational design improves the span of control for mid-level supervisors and improves organizational efficiency by consolidating units and personnel.

### **A. Investigative Services**

The new Investigative Services Division would comprise criminal investigations, special investigations and intelligence, and directed patrol. These units must work in coordinated fashion under the leadership of one lieutenant leveraging information and intelligence, reactive and proactive investigations, and street enforcement directed at target locations and persons, to achieve lower crime rates and effective investigations.

The decisions and the priority of services scheduled to be eliminated in the current ISD should be reexamined. Upon review of caseload and recorded achievements and clearance rates being recorded currently by the division, the data does not justify the recommended changes under Option 1.

Although it appears that a large percentage of cases are assigned to investigations, a review of the assignment of cases per investigator per month, this is not actually occurring. Assigned cases are being carried over from month to month thus creating an illusion of a heavy investigative caseload. In order for a case to be removed from the backlog, it must be closed out or supplemental report must be submitted. Thus it appears investigators are overworked having to carry up to 40 cases when in fact cases are being added to existing caseloads. This gives a misleading picture of the assigned workload. The majority of cases being investigated are crimes against property or non-violent crimes. This is of course positive from the standpoint that very little serious or crimes against person are recorded in Troy.

The crimes that are assigned to Troy investigators traditionally carry a low clearance rate nationwide. There should be more prudent case assignment and more emphasis on moving and closing out of all cases. Therefore, based on a review of caseloads and the success of investigators to achieve clearances, the Investigations Unit should be able to eliminate two investigative slots which would not appreciably affect current clearance rates. The proposed staffing levels under Option 1 are adequate to maintain investigative services in the TPD. Improved case management will yield better investigations and more efficient use of current resources. The 8 police officers assigned to investigations under Option 1, when utilized under better case management, are sufficient to handle the current investigative workload, and may be used for additional duties.

Due to the high incidence of property crime in Troy, consideration might be given to vigorous property crimes investigations. It is not recommended that specialized "property crime" investigators be designated. Instead, with increased investigatory time achieved through efficiency, greater and more prolonged attention should be paid to this category of crime. Similarly, with personnel being eliminated from the intelligence function, one of the remaining investigators in this unit might be assigned specifically to criminal intelligence activities. Furthermore, the luxury of having each crime reviewed and assigned for follow up investigation is a luxury that the citizens of Troy have determined through these cutbacks is not a priority.

Burglary and home invasions offenses must remain a priority with the ISD. The investigation of other crimes such as auto burglary which in most cases is a crime of negligence due to a failure of the owner of the vehicle to secure his/her vehicle or leaving items in the vehicle interior plainly exposed and other property crimes need to be handled by alternative methods such as self-reporting. The current mode of operation in the Investigations Division can no longer provide the type of personalized service currently being given

with the proposed reduction in personnel. It appears on just a review of collected data that efficiencies can be improved with the current structure today but with Option 1 the division will only provide basic investigative services with the added capability by maintaining a proactive S.I.U. Unit with an insurance policy to handle major incidents if they occur.

Upon closer examination of the Investigations Unit function, one current function that is currently the responsibility of an assigned detective is the drafting of warrants. Under current department policy all persons arrested for felonies and crimes of possible imprisonment of 93 days or greater, Michigan law enforcement agencies must secure physical warrants. This warrant requirement is burdensome at best, but the additional requirements for domestic violence related arrests which in Michigan require that defendants be arraigned within 20 hours due to the severity of the crime, and requests for no contact orders made by the victim creates an additional workload. All other in-custody defendants must be arraigned within 48 hours. This 48 hour requirement many times results in overtime expenditures especially for weekend arrests. Compounding this process is that on weekends the city's municipal court is closed. Therefore, Troy warrants must be taken to an assigned prosecutor in Pontiac, Michigan to have warrants reviewed. Once reviewed, the investigator must then walk the warrant through to a standby judge. This weekend judge will then conduct a bond hearing over a video system connected to Troy's prisoner holding facility. This warrant process is further delayed based on a first come, first serve method where investigators from Troy could wait in line for several hours waiting to appear before a judge. This current system is not only cumbersome but in today's technological and economic times is just not acceptable.

Although the City of Troy is only one city in Oakland County, Troy should take leadership and challenge this current system. The current requirements

for warrants can be addressed in various ways. First in-house, the complexity of these types of warrants are not so involved that patrol officers could draw up these warrants and present it to prosecutors in lieu of bringing in investigators on overtime. If this is not plausible, the work schedule of investigators should be altered to cover weekends. Also, meetings should be setup with the prosecutor's office to strongly suggest changes in this current system requiring investigators to be physically present at bond hearings or arraignments. This appears to be a custom and practice that has been established over years that is a luxury that can no longer be continued with advances in technology as illustrated with the in-house video booking system, electronic signatures, video conferencing, etc. This current practice should be able to be changed. Meetings should be initiated between Troy and other cities to provide a unified position to change the current weekend warrant process. Meeting with both the state attorney and the judiciary should be initiated. The overtime savings over a year for one or two investigators assigned to weekend warrant responsibilities could recoup \$30,000 in overtime savings.

Currently, the TPD participates in various federal, state, and local law enforcement task forces to combat criminal activity in the area. The TPD participates in the Drug Enforcement Administration task force (DEA), the Balkan Organized Crime task force (BOCTF), Oakland County Narcotics Enforcement Team (NET), Internet Crimes Against Children task force (ICAC), Immigrations and Customs Enforcement – Border Enforcement Security task force (ICE-BEST), and the Detroit Mortgage Fraud Task Force (DMFTF). Undoubtedly, participation in these task forces provides value to the TPD and the Troy community. However, under the realities faced by the TPD personnel assigned to these entities should be recalled and reassigned to investigative units inside the TPD. This recall will have a negative impact

on TPD investigative and intelligence capabilities, but is an organizational decision that must be made in order to maintain core investigative services.

Under the current organizational model, investigative services division has both a special investigations unit and a criminal intelligence unit. Personnel reductions necessitate the consolidation of these units into one, under one supervisor. The broad focus that these units enjoy now must be drastically curtailed. During the ICMA site visit the special investigations unit was completing an impressive long term and complex investigation into interstate vehicle navigation system theft. These two units worked aggressively with area law enforcement to intercede in an active criminal organization. The ability of the TPD to continue such investigations will be limited, but the organizational capacity must still be maintained and the focus driven by local crimes and local intelligence.

Currently one sergeant and one police officer is assigned to the lockup function. Consideration should be given to replacing these positions with PSAs and with the creation of a PSA civilian supervisor position. Also, the use of investigators to setup video arraignments and assigned bonds should be reviewed with consideration to remove such responsibilities by PSAs who are currently present in lockup.

It is ICMA's opinion therefore, if these internal changes in the case management process, the warrant process, and arraignment process can be achieved, the investigative unit should be able to operate with one sergeant and six investigators. Thus allowing the two additional positions to be placed back to special investigations and the other to maintain the projected closure of the criminal intelligence position, and transferred into the special investigations unit to coordinate the intelligence function more closely under one supervisor. This special investigations supervisor, therefore, would have the responsibility for supervising long and short-term investigations into

drugs and other organized criminal activities, and the collection, analysis, and dissemination of intelligence to other units in the TPD.

The recommended elimination of the Juvenile Unit, however, is one that clearly needs to be examined. Currently the police department maintains two school resource juvenile detectives in the city's three high schools. Option 1 calls for the elimination of the entire Juvenile Unit including one sergeant and four police officers. This will take place in Budget Year 2012-2013. Chief Mayer indicated that he has approached the Troy School District with a request to have the school board pay for half the costs for the two SROs assigned to the school. As of the writing of this report, no answer has been received on his request. If the school district agrees, then at least two positions will be saved. The supervisor and the other sworn officer position would be vacated but the two SROs could report directly to the division lieutenant. The SRO Program is a well documented national program of success. In Troy, the SROs are also assigned juvenile cases outside the school as part of their responsibility which is novel. National statistics indicate that the majority of crimes are committed by juvenile offenders. This is evident of the type of crimes experienced in Troy. An elimination of this unit could have a tremendous impact on crime and detection that the General Investigations Unit may not be able to have the same success as juvenile officers. This decision to eliminate the Juvenile Unit should be re-examined and justified based on numbers and an evaluation of the effectiveness of the juvenile's/SRO's investigation. Many times numbers alone do not tell the story.

When this unit is eliminated the additional workload generated from juvenile criminal investigations will be shifted to the criminal investigations unit. Due to the elimination of the unit and the shifted workload, the criminal investigations unit staffing should be maintained at 8 investigators. In general, therefore, the criminal investigations unit can be staffed with 6

investigators, ceteris paribus (all things being equal). With shifting workloads created by eliminating units and transferring personnel, it is recommend that the criminal investigations unit be staffed with one sergeant and 8 investigators, and these investigators be responsible for criminal investigations, including juveniles, intelligence, and a renewed focus on both serious violent crime and property crime.

### **B. Professional Standards and Community Relations Division**

The Professional Standards and Community Relations Division is comprised of a captain, one lieutenant, two sergeants, five police officers, and eight civilians. The division has the following responsibilities: public information (media relations), background investigations, community services, records, training, emergency response, and internal affairs. The division as a whole appears to be a catchall for any entity that does not fit into the other two divisions. It is the smallest of the three divisions sharing 18 assigned personnel. As the organization reduces headcount personnel assigned to this Division will be eliminated. It does not change the reality that many of the duties and responsibilities of this Division will still need to be performed. Numerous recommendations are offered that will help alleviate the personnel burden, maintain functional responsibility, and perhaps assist the overall performance of the organization.

#### **Recommendations:**

- **Eliminate the Division and the Captain position and redistribute personnel and functional authority to other divisions in the TPD.**
- **Rename the Investigative Services Division the Investigative and Administrative Division.**
- **Relocate and reduce the training unit**

- **Maintain the Community Services Section (1 Sgt. And 3 P.O.s), assign broader responsibilities, and transfer it organizationally to the Operations Division.**

The public information officer function is self-explanatory. This entity and its functions are performed by a police lieutenant. The function is an important one but could be performed by a professionally trained civilian at a substantial decrease in pay and benefits. However, what the organizational chart does not show is that the lieutenant who is currently in this position also is responsible for conducting internal affairs investigations. The amount of his time spent on each of the functions was not discussed but it appears the majority of the lieutenant's position deals with the media.

The Records Section currently has five civilian records clerks assigned. The function is an important one as it complies with state law regarding the retention of reports. Certainly this function could be looked at in terms of using technology to perform tasks currently being performed by records personnel. However, the potential for using technological solutions are hampered due to the Troy Police Department being part of CLEMIS the County Court Law Enforcement Management Information Systems. A system that currently would not allow outside vendor applications to interact with current CLEMIS applications.

The Training and Emergency Response and Preparedness Section is located in a separate facility located on 4850 John R Street. The section is run by one sergeant and two police officers. The facility and training offered at this facility is best described as exceptional. The facility itself is very impressive over 21,000 square feet as it provides training for both police and fire personnel. It appears that all police training could be conducted at this facility, especially if the budget gets tighter. The Troy facility could attract instructors and courses offered throughout the county, instead of officers

having to travel to other locations. Currently, the F.B.I. uses the Troy training facility for training courses. Training of course is essential as it reduces liability and enhances the skills of police personnel which will be even more imperative as personnel are reduced.

The Emergency Response and Preparedness component is housed at the training facility is also very impressive. The concept behind the city's ERP component is built on the countywide ICMS Model. The equipment used and acquired through regional federal homeland security funding appears more than adequate to handle almost any potential emergency that occurs in Troy or on a regional basis. Based on projected cutbacks under Option 1, the training section will lose one sworn police officer position and has lost an administrative aide. The impact for such reductions are hard to measure as it will require the division to come up with a plan to internally use personnel to conduct classes and training. Civilianizing, using light duty, or using volunteers are available options to explore. In the past the TPD relied on a "training day" to provide training to members of the department. Instead of allotting entire days to train officers, subjects/material might be reduced into smaller time blocks and administered to officers "in-service" taking advantage of the natural overlap of the patrol shifts.

Consideration might also be given to relocating the training function from its present location to headquarters. As impressive as the current facility appears to be, the headquarters facility has generous amounts of open space for both tactical operations and administrative/classroom space.

The Research and Technology Section consists of three civilians who perform technical assistance for the police department. The importance of this function is emphasized by the fact that only one of the three positions is the Analyst Planner. In light of personnel reductions and the further increase on

technology to subsidize these personnel cuts and to facilitate future technology changes, this section cannot sustain further reductions.

At the beginning of this report, a recommendation was made that the TPD identify one individual with the responsibility for implementing these recommendations, re-building the can-do attitude of the department, developing a culture of leadership, and evolving into a generalist policing agency. With the elimination of the Professional Standards and Community Services Division, all of the personnel and their responsibilities shift to other divisions and units... except the position of the division commander. The excising of the commander position from this division creates an opportunity for the TPD to identify the "point-person" of this enormous and drastic change process. All successful changes occur with the identification and leadership of a "change agent." The elimination of this division makes organizational sense, and permits the creation of a "change agent" at a very high position in the organization. The captain excised by the elimination of this division can be the new change coordinator and report directly to the chief. Overseeing changes to the patrol and investigative divisions from above gives the TPD an excellent opportunity and greatly increases the chances of success, and decreases the pain and disruption associated with such changes.

#### **IV. Miscellaneous**

## **A. Communications Section**

The Communications Section is directed by a civilian communications manager. There are 20 civilian employees of which 8 are designated as communications supervisors. The section is responsible for handling over 40,000 (911) calls and 132,000 business calls. In 2010, they dispatched 48,442 calls for police, fire, and EMS service for the City of Troy and the City of Clawson. As noted in the annual report, the monies derived by Troy being a 911 Center have been used for capital improvements within the dispatch center.

Examination of response time data contained in tables 11, 12, and 13 in the data analysis section indicate protracted delays in dispatch time. On average for all dispatched calls the TPD averages 9.3 minutes dispatch time, including 5.0 minutes for Priority 1 calls. Also, there is a substantial spike in dispatch times during the change of tours. Closer attention and supervision must be given to these situations. Given the volume of calls to the TPD and the low workload for patrol units, a dispatch time in excess of 9 minutes is not acceptable.

### **Recommendation:**

- **Examination must be made of Dispatch times and Code priorities to reduce dispatch times.**

## **B. Facilities, Vehicles, and Equipment**

The main police building is a structure that encompasses over 70,000 square feet. The current facility was the byproduct of a major refurbishing and expansions project that was completed in 2004 where over 46,000 square feet was added to the existing building of approximately 24,000 square feet at a cost of 12 million dollars. Architecturally the facility is best described as esthetically impressive. However, based on current workforce reductions

that have occurred the building is mostly empty with vacant work spaces throughout the building. This creates a situation of wasted space. This will be even more emphasized after further cuts are made.

The staff needs to conduct a needs assessment of the existing building and see if through either shutdowns of areas of the building or some type of space sharing plan or possibly some type of sub-letting of space to some other government entity. With the Federal Task Force the police department currently is involved in, both Departments of Homeland Security and DEA, staff should explore some type of lease space arrangement with their federal partners, which could assist the police department and the city.

The assigned vehicles of the police department were observed but not inspected. They appeared more than adequate and appear to meet the needs of the department. Staff was questioned as to the policy dealing with the marking and non-marking of assigned vehicles. Currently it appears both uniform supervisors and traffic units are not marked. With current and proposed cutbacks in positions, this internal policy should be examined as citizens tend to feel safer when they observe marked police vehicles. By adding markings to traffic and supervisory vehicles, the marked allotment of vehicles will increase by 20 plus percent over the current number of marked police vehicles that patrol the city. Other assigned equipment appear adequate. The assigned laptops given to investigators and specialized units mentioned are adequate but experience some dead spots, and other non-coverage areas which have diminished the wireless capability of a laptop program. However, the in-car mobile data computers "MDCs", which have been operational for approximately 15 years and are connected to the countywide CLEMIS system, experience dead spots and drop offs regularly. The majority of the problems are due to a lack of tower space and building height impedance. This situation can be corrected if more towers are

constructed. No other complaints were expressed in interviews conducted with representatives of the rank and file in regards to issued equipment.

### **C. Volunteer Programs**

The use of volunteers in policing and fire services has been commonplace. Police departments have established volunteer citizen patrols and have used volunteers in numerous administrative positions. The Troy Police Department has utilized student interns in the past to provide research support as well as some technical assistance at no cost to the organization. TPD has had positive experiences with volunteers in the past mostly in conjunction with community services events involving youth programs that have been organized in partnership with the Troy Community Coalition for the Prevention of Drug and Alcohol Abuse. The development of a full scale and engaged volunteer program in the police department has not been fully pursued. There are collective bargaining agreements in place that contain some provisions that would have to be discussed and explored in order to implement a broad based volunteer program. The department has, however, recently implemented a program staffed with one volunteer to work in the Investigations Section and provide basic call backs and case updates to citizens. The department should continue to explore the possibilities inherent in volunteer programs and attempt to implement them wherever possible. Upon speaking with the Chief, based on the success and positive feedback involving the current volunteer working in the Investigations Section, a broader use of volunteers is now being considered. Citizen's Academy classes have been held over the last two years and are a very viable opportunity to recruit citizens not only interested in the department, but who may be willing to serve as volunteers. In fact, the recent volunteer position was created as a result of a Citizen Police Academy attendee coming forward and offering to help. Those opportunities should be continued and a more aggressive volunteer recruitment program should be pursued. With a city

population of 80,000 and the closeness of other like communities, it should not be difficult to recruit at least 20 volunteers within the first year. These volunteers could greatly assist the police department in its current downsizing process.

#### **D. Use of Automated Report Taking**

The department is moving in this direction. It now has a Facebook page but citizen-initiated reporting writing needs to be initiated. A review of the crimes committed in Troy being predominately crimes against property is a ideal environment for such technology where citizens can elect to fill out automated reports of crime from the comfort of their home with the use of a computer terminal. In light of current downsizing, such innovation should be seriously considered. Companies such as CopLogic work with current Computer Aided Dispatch and Records Management systems that can facilitate this technology. Chief Mayer identified that he has requested a citizen reporting system through Oakland County's Court Law Enforcement Management Information System (CLEMIS). He also indicated that plans are being initiated to put kiosks in the police lobby to facilitate self-initiated citizen reports of crime.

#### **E. Report and Ticket Writing Technology**

Troy uniform personnel interviewed were very critical of the department's crime report writing, accident report, and traffic ticket writing capabilities. Most described the process as so slow and cumbersome that they were able to handwrite accident reports and tickets twice as fast as the current process. The police department is part of the Court Law Enforcement Management Information System (CLEMIS) countywide reporting system which has been in existence for a long period of time. Unfortunately, such large systems are hard to modify and make changes to. It appears such is the case with this system. Chief Mayer has had a significant role in CLEMIS

and admits that changes, updates and revisions are needed but according to the Chief, any changes to address these two needed changes, which will save man hours, are at least a year away. Although Troy is only one partner in the CLEMIS system, pressure should be exerted by Chief Mayer and Troy in light of the current financial crisis to get the changes as soon as possible or consider other alternatives. On December 1, 2010 Chief Mayer advised that a new software report writing module will be rolled out in spring 2011. Hopefully this new software program will address current ticket, accident and crime reporting problems.

With the reduction of personnel, the Troy Police Department will have to rely heavily on technology to fill the void of not having personnel to do tasks that will have to be eliminated. The deficiencies in the CLEMIS system mentioned above must be addressed if the police department has any hopes of freeing up personnel to conduct priority work requests. Unfortunately, due to the fact that CLEMIS is a countywide system and not under the direct control of Troy, this may not be possible.

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## **V. Summary**

The TPD is an outstanding organization. The high level of services provided by the TPD is certainly a function of the high quality of life that Troy residents enjoy. The recommendations contained in this report are not offered because the TPD is ineffective. They are offered to assist the department to engage in a personnel and service reduction plan. The plan detailed by the TPD under Option 1 is feasible. It will, however, based on our analysis considerably stress the organization's ability to deliver a basic level of police service. As a result, ICMA recommends adding four sworn positions to the projected cuts. This observation in conjunction with the overall recommendations articulated throughout this report will bolster the implementation of Option I and undoubtedly contribute to the overall effectiveness and efficiency of the agency. Staffing models under the four shift patrol plan offered here are sound and supported by modern and sophisticated data analysis. The qualitative recommendations based on this data analysis are grounded in experience and industry best-practices. This combination of the two leads to numerous improvement opportunities within the context of personnel and service reductions.

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## **PART 2. DATA ANALYSIS**

### **I. Introduction**

This is the data analysis on police patrol operations for Troy, Michigan, conducted by ICMA Consulting Services. This report focuses its analysis on three main areas: workload, deployment, and response times. These three areas are related almost exclusively to patrol operations, which constitute a significant portion of the police department's personnel and financial commitment. All information in this report was developed directly from data recorded in the Troy Police Department and Oakland County's information system known as the Courts and Law Enforcement Management Information System CLEMIS.

The majority of the first section of the report, concluding with Table 8, uses the call and activity data for the entire year. For the detailed workload analysis and the response-time analysis, we use two four-week sample periods. The first period is the month of February 2010 (February 1 to February 28), or winter, and the second period is the month of August 2010 (August 1 to August 28), or summer.

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## II. Workload Analysis

As with similar cases around the country, we encountered a number of issues when analyzing the data supplied by the Troy dispatch center. We made assumptions and decisions to address them. We describe these issues, assumptions, and decisions below.

- A small percentage of events (1 percent, or approximately 800) involving patrol units showed less than 30 seconds of time spent on scene. We call this *zero time on scene*.
- The computer software generated a large number of event codes. This led to 325 different event descriptions, which we reduced to 23 categories for our tables and 12 categories for our figures.
- A significant proportion of events (29 percent, or approximately 9,400 events for the year) involving patrol units were missing arrival times.
- Most directed patrol activities were not recorded electronically.
- We identified a number of activities performed by the patrol force that were not captured as a standard dispatch incident, i.e., they were not assigned a call for service number. Instead, we gleaned the data from a separate system - the E-Log activity data system. Examples include report writing, prisoner booking, follow-up, lab work, and meal break. We treated each relevant activity individually and added it to our overall data set. Unlike standard incidents, each activity was associated with only one unit and was always self-initiated.

Our study team has worked often with many of these problems with event data in other jurisdictions. To identify events that were canceled en route, we assumed zero time on scene to account for a significant portion of them. As stated, any event with an on-scene time of less than 30 seconds was labeled *zero time on scene*. We used the data's source field to identify patrol-initiated activities. Any event whose source was listed as *field-*

*initiated*, along with any inspection, out-of-service, or directed-patrol event, was considered self-initiated.

When we analyze a set of dispatch records, we go through a series of steps that we detail as follows:

- First, we process the data to improve its accuracy. For example, when a unit is dispatched twice to a single event, we remove the duplicate record. In addition, we remove records that do not indicate an actual activity. We also remove data that is incomplete. This includes situations where there is not enough time information to evaluate the record.
- At this point, we have a series of records that we call *events*. We identify these events in three ways:
  - We distinguish between patrol and non-patrol units.
  - We assign a category to each event based on its description.
  - We indicate whether the call is *zero time on scene*, *police-initiated*, or *other-initiated*.
- Finally, we remove all records that do not involve a patrol unit in order to get a total number of *patrol-related events*.
- We focus on a smaller group of events designed to represent actual *calls for service* by removing the following:
  - All events with no officer time spent on scene
  - All events indicating an out-of-service activity
  - All events documenting a directed-patrol activity

In this way, we first identify a total number of records, then limit ourselves to patrol events, and finally focus on calls for service.

To briefly review the data received, in the period from September 1, 2009, to August 31, 2010, there were approximately 39,600 dispatch events

recorded by CLEMIS. Of that total, roughly 32,400 events included a patrol unit as either the primary or secondary unit. We added an additional 27,100 patrol-related activities. This gave a total of 59,500 events. When focusing on our four-week periods, we analyzed 4,474 events in winter (February 2010) and 4,764 events in summer (August 2010). In addition, when analyzing workloads and response times, we ignored calls with incorrect or missing time data. The inaccuracies included elapsed times that either were negative or exceeded 8 hours. For the entire year, we excluded fewer than 50 calls from our analysis.

In the period from September 2009 to August 2010, the police department reported an average of 163 events for service per day. As mentioned, 1 percent of these events (2.2 per day) showed no unit time spent on the call.

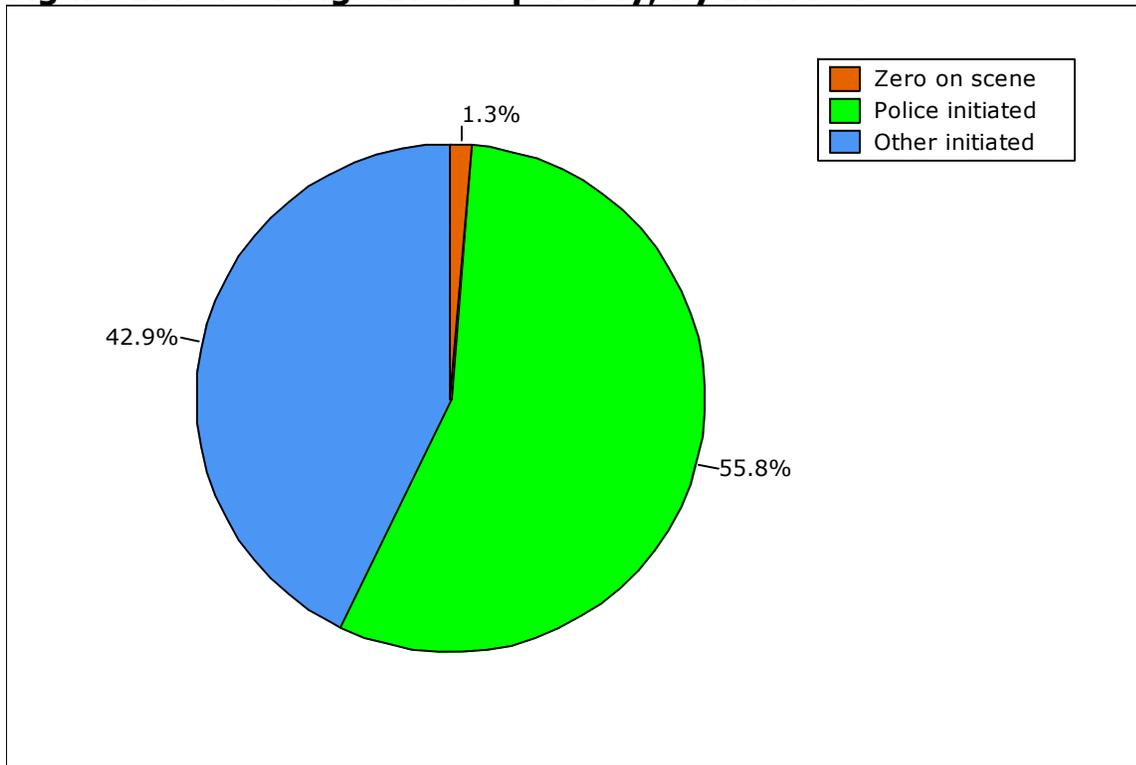
In the following pages, we show two types of data: activity and workload. The activity levels are measured by the average number of calls per day, broken down by the type and origin of the calls and categorized by the nature of the calls (e.g., crime, traffic). Workloads are measured in average work-hours per day.

We used 23 call categories for tables and 12 categories for our graphs. We show our categories chart below.

.....

<b>Table Categories</b>	<b>Figure Categories</b>
Warrant arrest/prisoner transport	Arrest—warrant/transport
Assist other government agency/jurisdiction	Assist other agency
Crime—persons	Crime—reports & arrests
Crime—property	
Crime—society	
Disturbance/other ordinance	
Animal calls	General noncriminal
Miscellaneous calls for service	
Sick/injury	
Citizen assist	
Inspection—liquor/vehicle	Inspection
Alarm	Investigations—noncriminal
Check/investigation—buildings & property	
Juvenile	Juvenile
Request for ambulance	Request for ambulance
Suspicious person/vehicle/incident	Suspicious incident
Traffic enforcement	Traffic
Crashes—reportable	
Traffic complaint	
Accidents—private property	
Out of service—administrative	Out of service
Out of service—personal	
Directed patrol	Directed patrol

**Figure 1. Percentage Events per Day, by Initiator**



*Note:* Percentages are based on a total of 59,503 events.

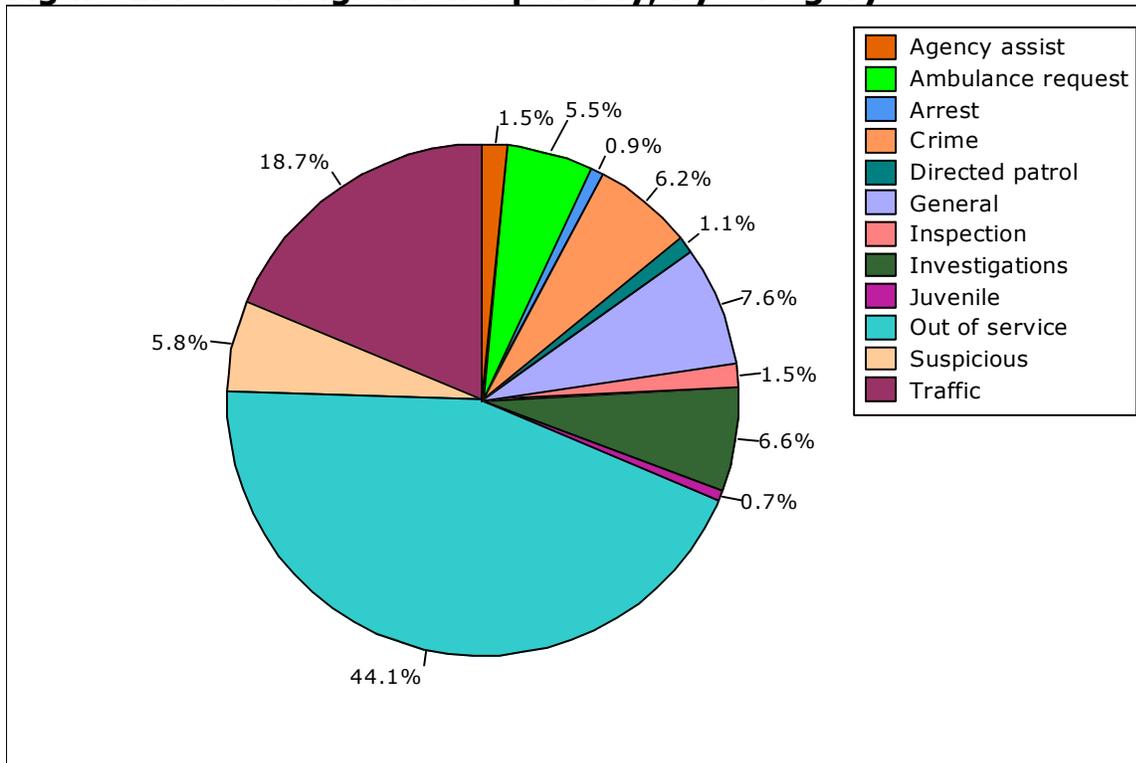
**Table 1. Events per Day, by Initiator**

Initiator	Total Events	Events per Day
Zero on-scene	787	2.2
Police-initiated	33,190	90.9
Other-initiated	25,526	69.9
<b>Total</b>	<b>59,503</b>	<b>163.0</b>

Observations:

- One percent of the events had zero-on-scene times.
  - Fifty-six percent of all events were police-initiated. This count includes all out-of-service events.
  - Forty-three percent of all events were other-initiated.
  - There was a total of 163 events per day, or 6.8 per hour.

**Figure 2. Percentage Events per Day, by Category**



Note: This figure combines categories in the following table according to the description on page 11.

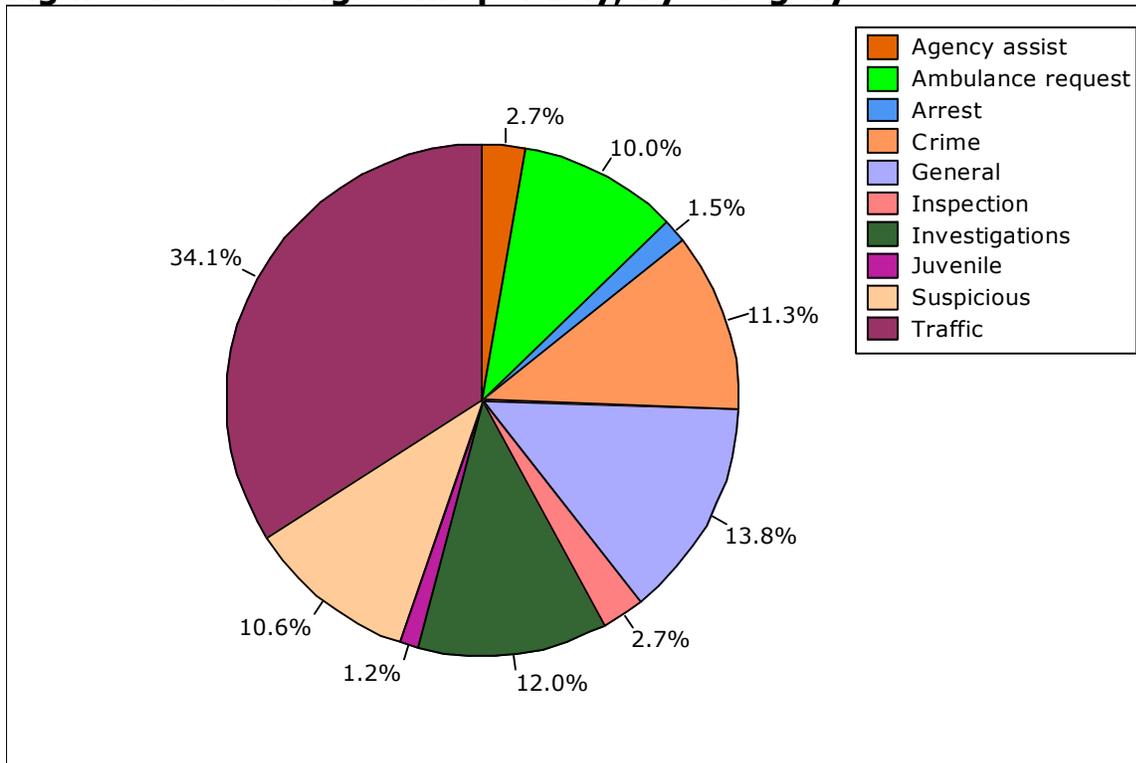
**Observations:**

- The top four categories accounted for 76 percent of events.
- Forty-four percent of events were out-of-service activities.
- Nineteen percent of events were traffic-related (enforcements, complaints, and accidents).
- Eight percent of events involved general noncriminal incidents.
- Six percent of events were crime-related.

**Table 2. Events per Day, by Category**

<b>Category</b>	<b>Total Events</b>	<b>Events per Day</b>
Accidents—private property	183	0.5
Alarm	2,870	7.9
Animal calls	335	0.9
Assist other government agency/jurisdiction	888	2.4
Check/investigation	1,037	2.8
Citizen assist	1,759	4.8
Crashes—reportable	2,187	6.0
Crime—persons	446	1.2
Crime—property	1,985	5.4
Crime—society	114	0.3
Directed patrol	637	1.7
Disturbance/other ordinance	1,145	3.1
Inspection—liquor/vehicle	883	2.4
Juvenile	403	1.1
Miscellaneous calls for service	2,025	5.5
Out of service—administrative	16,500	45.2
Out of service—personal	9,756	26.7
Request for ambulance	3,249	8.9
Sick/injury	414	1.1
Suspicious person/vehicle/incident	3,430	9.4
Traffic complaint	3,200	8.8
Traffic enforcement	5,539	15.2
Warrant arrest/prisoner transport	518	1.4
<b>Total</b>	<b>59,503</b>	<b>163.0</b>

**Figure 3. Percentage Calls per Day, by Category**



Note: This figure combines categories in the following table according to the description on page 11.

#### Methodology:

Here, we focused on recorded calls rather than recorded events. This means we removed events with zero time on scene, directed-patrol events, and out-of-service events.

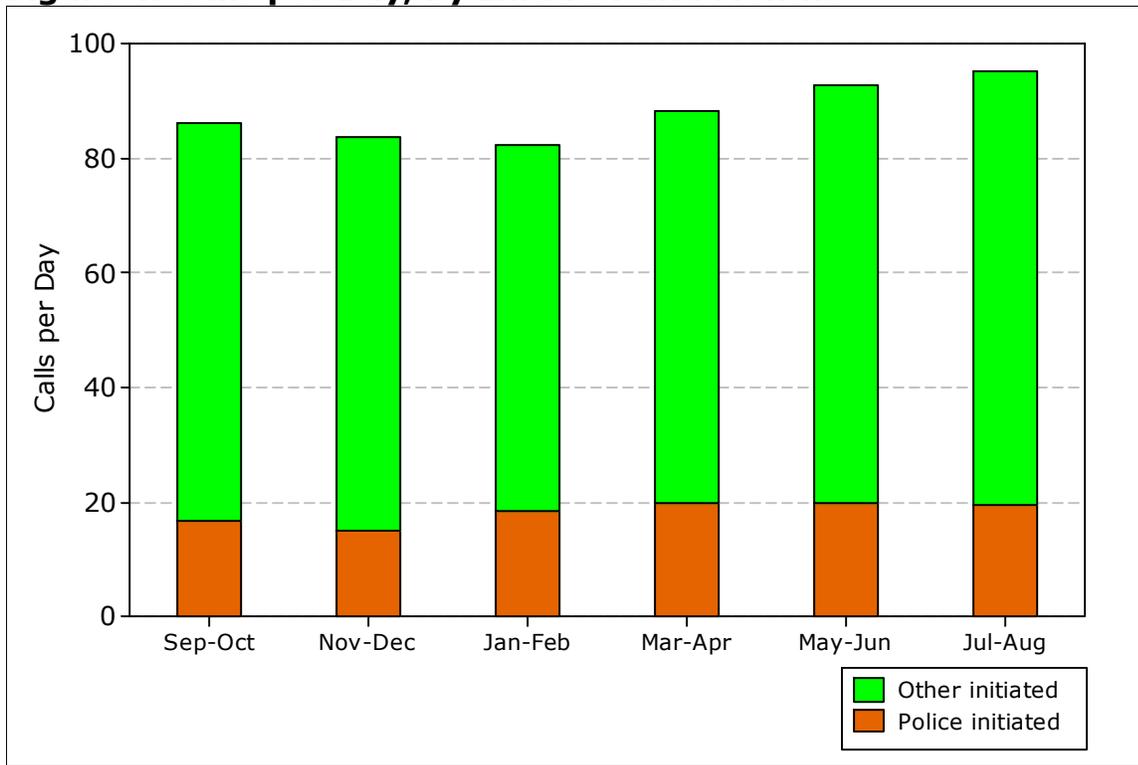
#### Observations:

- There were 88 calls per day, or 3.7 per hour.
- The top three categories accounted for 60 percent of calls.
- Thirty-four percent of calls were traffic-related (enforcement, complaints, and accidents).
- Fourteen percent of calls were general noncriminal incidents.
- Twelve percent of calls were investigations (alarms and checks).
- Eleven percent of calls were crime-related.

**Table 3. Calls per Day, by Category**

<b>Category</b>	<b>Total Calls</b>	<b>Calls per Day</b>
Accidents—private property	181	0.5
Alarm	2,838	7.8
Animal calls	322	0.9
Assist other government agency/jurisdiction	875	2.4
Check/investigation	1,006	2.8
Citizen assist	1,739	4.8
Crashes—reportable	2,172	6.0
Crime—persons	444	1.2
Crime—property	1,950	5.3
Crime—society	118	0.3
Disturbance/other ordinance	1,134	3.1
Inspection—liquor/vehicle	853	2.3
Juvenile	400	1.1
Miscellaneous calls for service	1,979	5.4
Request for ambulance	3,229	8.8
Sick/injury	399	1.1
Suspicious person/vehicle/incident	3,398	9.3
Traffic complaint	3,125	8.6
Traffic enforcement	5,492	15.0
Warrant arrest/prisoner transport	488	1.3
<b>Total</b>	<b>32,137</b>	<b>88.0</b>

**Figure 4. Calls per Day, by Initiator and Months**



**Table 4. Calls per Day, by Initiator and Months**

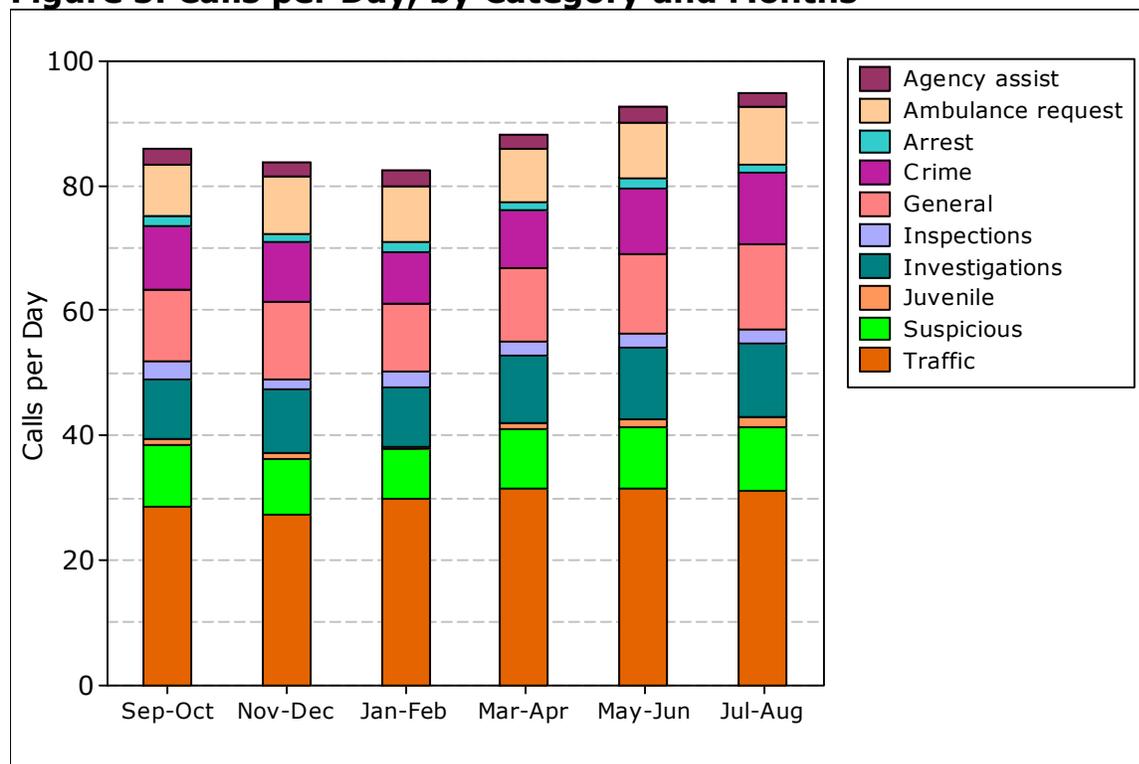
Initiator	Sep-Oct	Nov-Dec	Jan-Feb	March-April	May-June	July-Aug
Police-initiated	16.6	14.9	18.3	19.8	19.7	19.4
Other-initiated	69.4	68.9	64.1	68.4	72.9	75.7
<b>Total</b>	<b>86.0</b>	<b>83.8</b>	<b>82.4</b>	<b>88.3</b>	<b>92.5</b>	<b>95.0</b>

Observations:

- The number of calls was smallest from January to February 2010.
- The number of calls was largest from July to August 2010.
- The months with the most calls had 15 percent more than the months with the fewest calls.
- For police-initiated calls, the period from March to April 2010 had the most calls, with 33 percent more than the period from November to December 2009, which had the fewest.
- For other-initiated calls, the period from July to August 2010 had the most calls, with 18 percent more than the period from January to February 2010, which had the fewest.

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**Figure 5. Calls per Day, by Category and Months**



Note: This figure combines categories in the following table according to the description on page 11.

**Methodology:**

Calculations were limited to calls rather than events.

**Observations:**

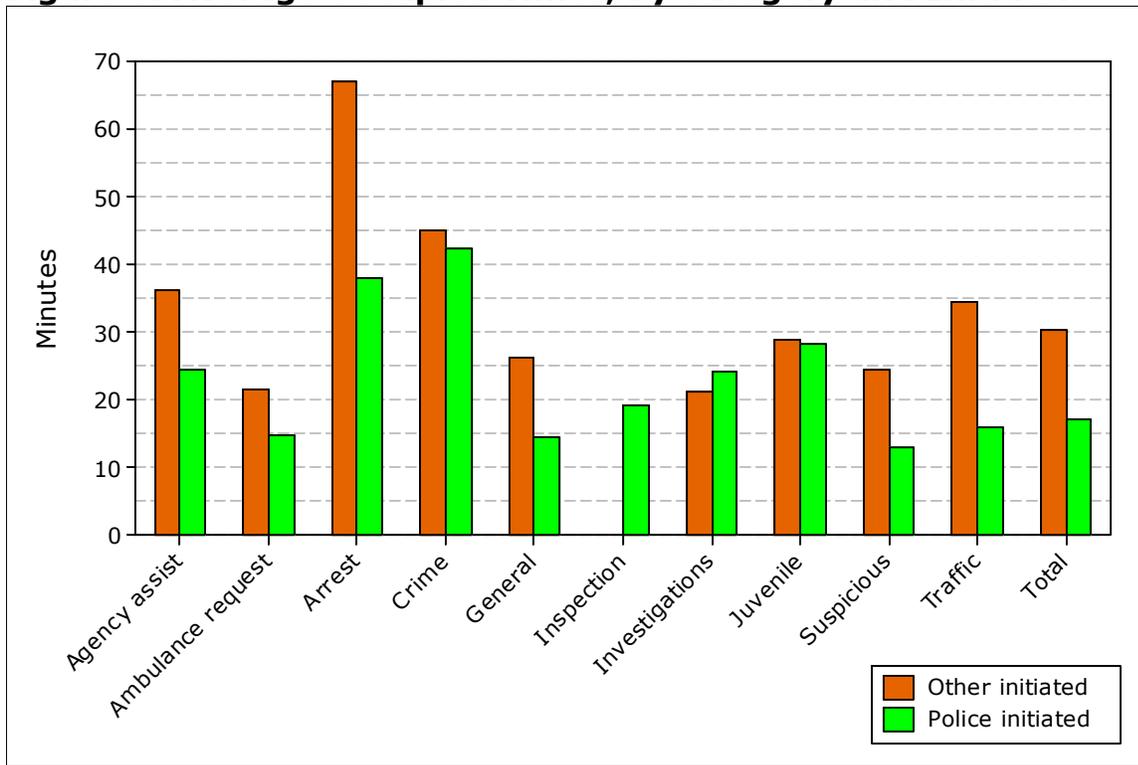
- Traffic-related calls (enforcement and accidents) were the most common type of activities throughout the year.
- Traffic-related calls averaged between 27.3 and 31.6 per day throughout the year.
- Crime calls varied between 8.5 and 11.6 per day throughout the year. This was between 10 and 12 percent of total calls.
- The top three categories (traffic, general noncriminal, and investigations/crimes) averaged between 59 and 61 percent of total calls throughout the year.

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**Table 5. Calls per Day, by Category and Months**

<b>Category</b>	<b>Sep-Oct</b>	<b>Nov-Dec</b>	<b>Jan-Feb</b>	<b>March-Apr</b>	<b>May-Jun</b>	<b>July-Aug</b>
Accidents—private property	0.6	0.4	0.5	0.6	0.5	0.4
Alarm	6.7	7.9	7.2	7.9	8.7	8.3
Animal calls	0.9	1.0	0.6	0.8	0.9	1.1
Assist other government agency/jurisdiction	2.7	2.4	2.3	2.1	2.6	2.3
Check/investigation	2.9	2.4	2.2	2.8	2.9	3.4
Citizen assist	4.5	4.8	4.8	4.8	4.8	4.8
Crashes—reportable	6.3	7.0	6.4	5.4	5.4	5.2
Crime—persons	1.2	1.2	0.9	1.2	1.5	1.4
Crime—property	5.5	5.7	4.5	4.9	5.2	6.3
Crime—society	0.2	0.2	0.3	0.4	0.4	0.4
Disturbance/other ordinance	3.3	2.5	2.8	2.9	3.5	3.6
Inspection—liquor/vehicle	2.8	1.7	2.4	2.4	2.3	2.4
Juvenile	1.0	1.0	0.6	1.0	1.4	1.7
Miscellaneous calls for service	5.1	5.6	4.4	5.0	5.8	6.5
Ambulance request	8.1	9.0	9.0	8.6	8.9	9.4
Sick/injury	1.1	1.0	1.1	1.0	1.2	1.2
Suspicious person/vehicle/incident	9.8	8.9	7.9	9.5	9.7	10.0
Traffic complaint	7.8	7.7	8.3	9.1	9.3	9.2
Traffic enforcement	14.0	12.2	14.7	16.5	16.4	16.5
Warrant arrest/prisoner transport	1.5	1.2	1.4	1.3	1.4	1.1
<b>Total</b>	<b>86.0</b>	<b>83.8</b>	<b>82.4</b>	<b>88.3</b>	<b>92.5</b>	<b>95.0</b>

**Figure 6. Average Occupied Times, by Category and Initiator**



*Note:* This figure combines categories using weighted averages from the following table according to the description on page 11.

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**Table 6. Primary Unit's Average Occupied Times, by Category and Initiator**

Category	Police-Initiated		Other-Initiated	
	Total Calls	Minutes	Total Calls	Minutes
Accidents—private property	2	24.4	178	51.3
Alarm	3	14.4	2,834	16.8
Animal calls	11	12.6	311	25.3
Assist other government agency/jurisdiction	51	24.5	823	36.2
Check/investigation	132	24.2	874	35.1
Citizen assist	382	13.8	1,357	19.7
Crashes—reportable	40	56.5	2,128	60.6
Crime—persons	1	7.7	443	60.3
Crime—property	12	41.3	1,937	43.8
Crime—society	40	46.0	73	64.4
Disturbance/other ordinance	6	24.9	1,127	39.4
Inspection—liquor/vehicle	853	19.0	N/A	N/A
Juvenile	4	28.2	396	28.8
Miscellaneous calls for service	58	17.0	1,914	25.1
Ambulance request	4	14.8	3,224	21.3
Sick/injury	3	35.4	396	54.3
Suspicious person/vehicle/incident	224	12.9	3,174	24.4
Traffic complaint	81	20.0	3,044	18.0
Traffic enforcement	4,575	15.5	914	24.6
Warrant arrest/prisoner transport	126	37.9	361	67.0
<b>Total</b>	<b>6,608</b>	<b>17.0</b>	<b>25,508</b>	<b>30.2</b>

*Note:* We removed 21 calls with inaccurate busy times.

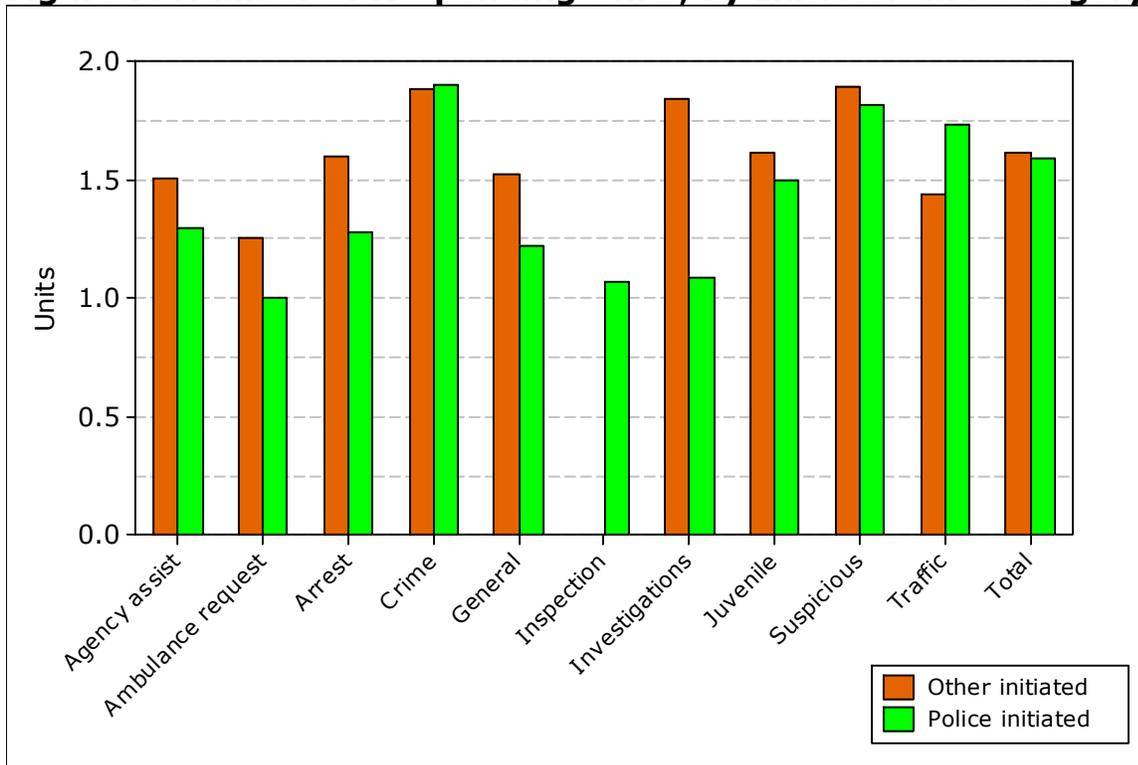
## Methodology:

This information is limited to calls and excludes all events that show zero time on scene. A unit's occupied time is measured as the time from when it is dispatched until it becomes available. The times shown are the average occupied times per call for the primary unit, rather than the total occupied time for all units assigned to a call.

## Observations:

- A unit's average time spent on a call ranged from 13 to 67 minutes overall.
- The longest average times were spent on calls involving arrests and prisoner transports that were other-initiated.
- Police-initiated traffic calls (enforcements, complaints, and accidents) averaged 16 minutes per call, while other-initiated traffic calls averaged 34 minutes per call.
- Crime calls averaged 42 minutes for police-initiated calls and 45 minutes for other-initiated calls.

**Figure 7. Number of Responding Units, by Initiator and Category**



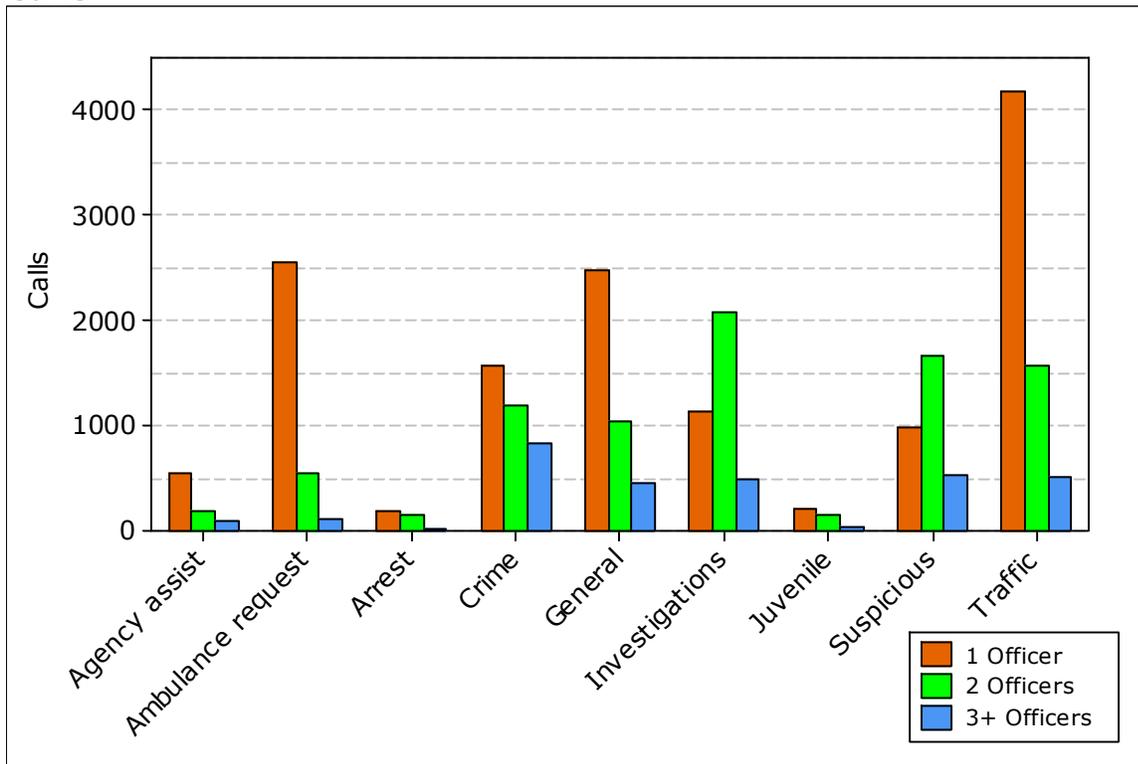
Note: The categories in this figure use weighted averages to combine those of the following table according to the description on page 11.

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**Table 7. Number of Responding Units, by Initiator and Category**

Category	Police-Initiated		Other-Initiated	
	Average	Total Calls	Average	Total Calls
Accidents—private property	1.0	2	1.2	179
Alarm	1.7	3	1.9	2,835
Animal calls	1.1	11	1.2	311
Assist other government agency/jurisdiction	1.3	51	1.5	824
Check/investigation	1.1	132	1.6	874
Citizen assist	1.2	382	1.2	1,357
Crashes—reportable	1.5	40	1.5	2,132
Crime—persons	1.0	1	2.3	443
Crime—property	1.8	12	1.6	1,938
Crime—society	2.0	40	2.3	73
Disturbance/other ordinance	1.5	6	2.2	1,128
Inspection—liquor/vehicle	1.1	853	N/A	0
Juvenile	1.5	4	1.6	396
Miscellaneous calls for service	1.6	59	1.7	1,920
Ambulance request	1.0	4	1.3	3,225
Sick/injury	2.0	3	1.9	396
Suspicious person/vehicle/incident	1.8	224	1.9	3,174
Traffic complaint	1.2	81	1.3	3,044
Traffic enforcement	1.7	4,577	1.9	915
Warrant arrest/prisoner transport	1.3	126	1.6	362
<b>Total</b>	<b>1.6</b>	<b>6,611</b>	<b>1.6</b>	<b>25,526</b>

**Figure 8. Number of Responding Units, by Category, Other-Initiated Calls**



*Note:* The categories in this figure use weighted averages to combine those of the following table according to the description on page 11.

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**Table 8. Number of Responding Units, by Category, Other-Initiated Calls**

Category	Responding Units		
	One	Two	Three or More
Accidents—private property	147	24	8
Alarm	643	1,806	386
Animal calls	251	47	13
Assist other government agency/jurisdiction	540	187	97
Check/investigation	499	276	99
Citizen assist	1,186	142	29
Crashes—reportable	1,384	481	267
Crime—persons	147	119	177
Crime—property	1,114	582	242
Crime—society	16	30	27
Disturbance/other ordinance	290	461	377
Juvenile	202	153	41
Miscellaneous calls for service	863	754	303
Ambulance request	2,549	557	119
Sick/injury	186	92	118
Suspicious person/vehicle/incident	979	1,669	526
Traffic complaint	2,387	534	123
Traffic enforcement	270	529	116
Warrant arrest/prisoner transport	182	152	28
<b>Total</b>	<b>13,835</b>	<b>8,595</b>	<b>3,096</b>

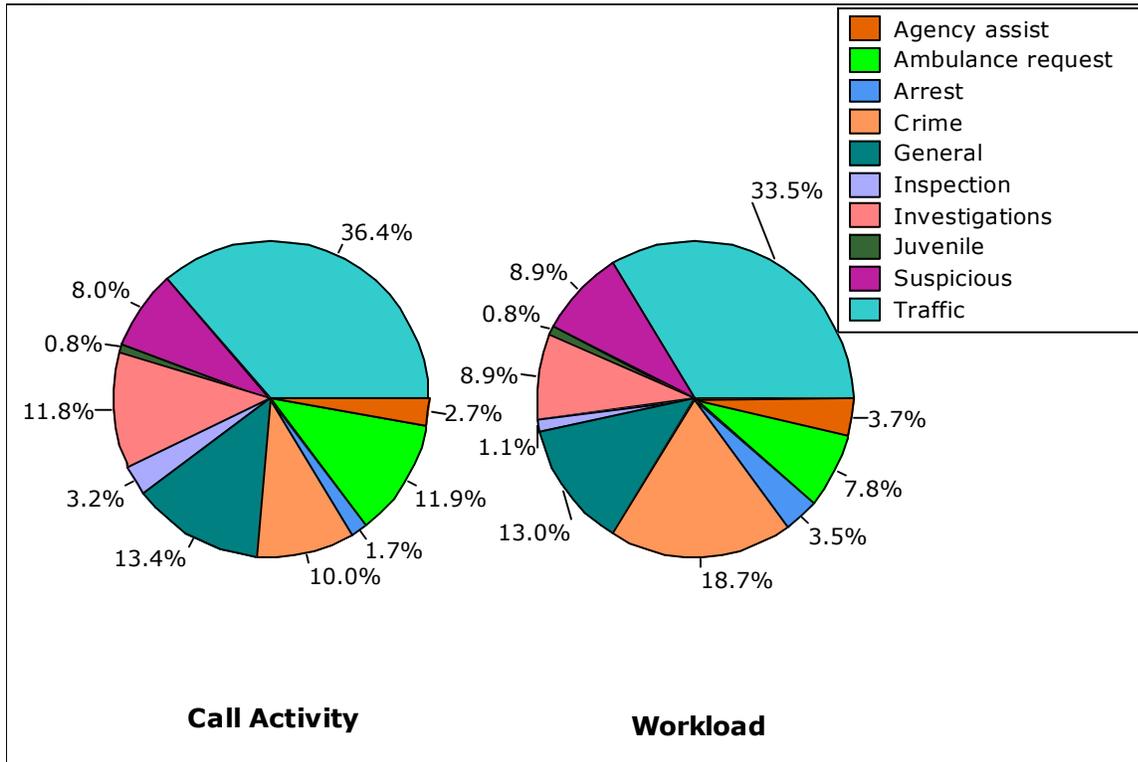
## Methodology:

The information in Table 7 and Figure 7 is limited to calls and excludes events with zero time on scene, out-of-service records, and directed-patrol activities. The information in Table 8 and Figure 8 is further limited to other-initiated calls.

## Observations:

- The overall mean number of responding units was 1.6 for police-initiated calls and 1.6 for other-initiated calls.
- The mean number of responding units was a maximum of 1.9 for incidents involving crime and suspicious incidents.
- Fifty-four percent of all other-initiated calls involved one responding unit.
- Thirty-four percent of all other-initiated calls involved two responding units.
- Twelve percent of all other-initiated calls involved three or more units.
- The largest group of calls with three or more responding units involved crime-related incidents, followed by suspicious incidents.

**Figure 9. Percentage Calls and Work-Hours, by Category, February 2010**



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**Table 9. Calls and Work-Hours per Day, by Category, February 2010**

<b>Category</b>	<b>Per Day</b>	
	<b>Calls</b>	<b>Work-Hours</b>
Arrest—warrant/transport	1.4	1.9
Assist other agency	2.3	2.0
Crime—reports & arrests	8.2	10.2
General noncriminal	11.0	7.1
Inspection	2.6	0.6
Investigations—noncriminal	9.7	4.8
Juvenile	0.7	0.5
Request for ambulance	9.8	4.3
Suspicious incident	6.6	4.9
Traffic	29.9	18.3
<b>Total</b>	<b>82.2</b>	<b>54.7</b>

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## Methodology:

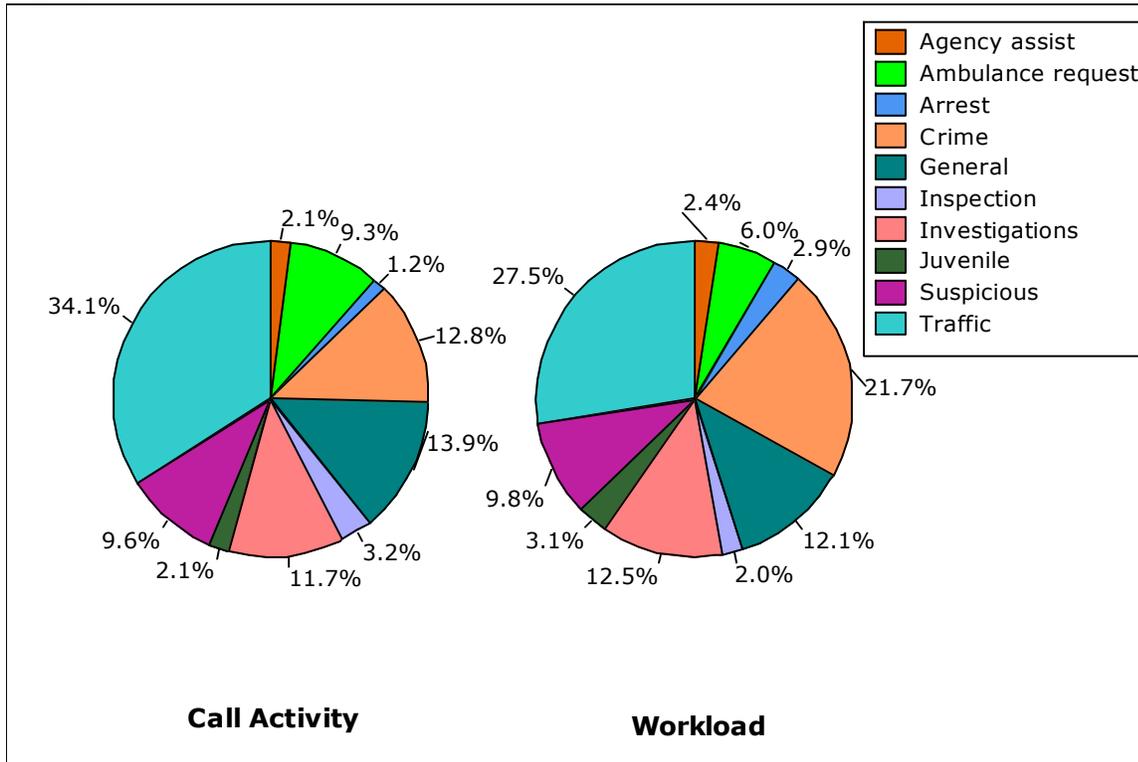
Workload calculations focused on calls rather than events.

## Observations:

- The total number of calls in February was 82 per day, or 3.4 per hour.
- Total workload was 55 work-hours per day, meaning that an average of 2.3 officers per hour were busy responding to calls.
- Traffic-related calls constituted 36 percent of calls and 34 percent of workload.
- General noncriminal activities constituted 13 percent of both calls and workload.
- Investigations constituted 12 percent of calls and 9 percent of workload.
- Crimes constituted 10 percent of calls and 19 percent of workload.
- The top three categories constituted 62 percent of calls and 65 percent of workload.

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**Figure 10. Percentage Calls and Work-Hours, by Category, August 2010**



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**Table 10. Calls and Work-Hours per Day, by Category, August 2010**

<b>Category</b>	<b>Per Day</b>	
	<b>Calls</b>	<b>Work-Hours</b>
Arrest—warrant/transport	1.2	1.8
Assist other agency	2.0	1.5
Crime—reports & arrests	12.4	13.3
General noncriminal	13.5	7.4
Inspection	3.1	1.2
Investigations—noncriminal	11.4	7.7
Juvenile	2.1	1.9
Request for ambulance	9.1	3.7
Suspicious incident	9.3	6.0
Traffic	33.1	16.8
<b>Total</b>	<b>97.0</b>	<b>61.1</b>

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Observations:

- In August, the total calls per day and workload were greater than they were in February.
- The total number of calls in August was 97 per day, or 4.0 per hour.
- Total workload was 61 work-hours per day, meaning that an average of 2.5 officers per hour were busy responding to calls.
- Traffic-related incidents constituted 34 percent of calls and 27 percent of workload.
- General noncriminal incidents constituted 14 percent of calls and 12 percent of workload.
- Crimes constituted 13 percent of calls and 22 percent of workload.
- The top three categories constituted 61 percent of calls and 62 percent of workload.

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### III. Deployment

The police department's main patrol force includes regular patrol officers and patrol sergeants. Along with regular patrol officers, we included traffic units (TSUs) in our analysis, as they also perform patrol-related duties. We examined only deployment information for four weeks in winter (February 2010) and four weeks in summer (August 2010).

The police department operates four 10-hour shifts, starting at 7 a.m., noon, 4:30 p.m., and 9:30 p.m. This causes total deployment to peak daily between 4:30 p.m. and 5 p.m. and between 9:30 p.m. and 10 p.m. There are also lesser peaks between 6 a.m. and 6:30 a.m., and between 3:30 p.m. and 4 p.m. when traffic units come on duty. The overlap is designed to accommodate shift changes and to ensure that staff is available to respond to calls for service.

The department deployed an average of 12.5 officers during the 24-hour day in winter (February) and 10.7 officers during the 24-hour day in summer (August). When traffic units are included, the average rose to 14.0 in winter and 12.2 in summer. There was significant variability in deployment by hour.

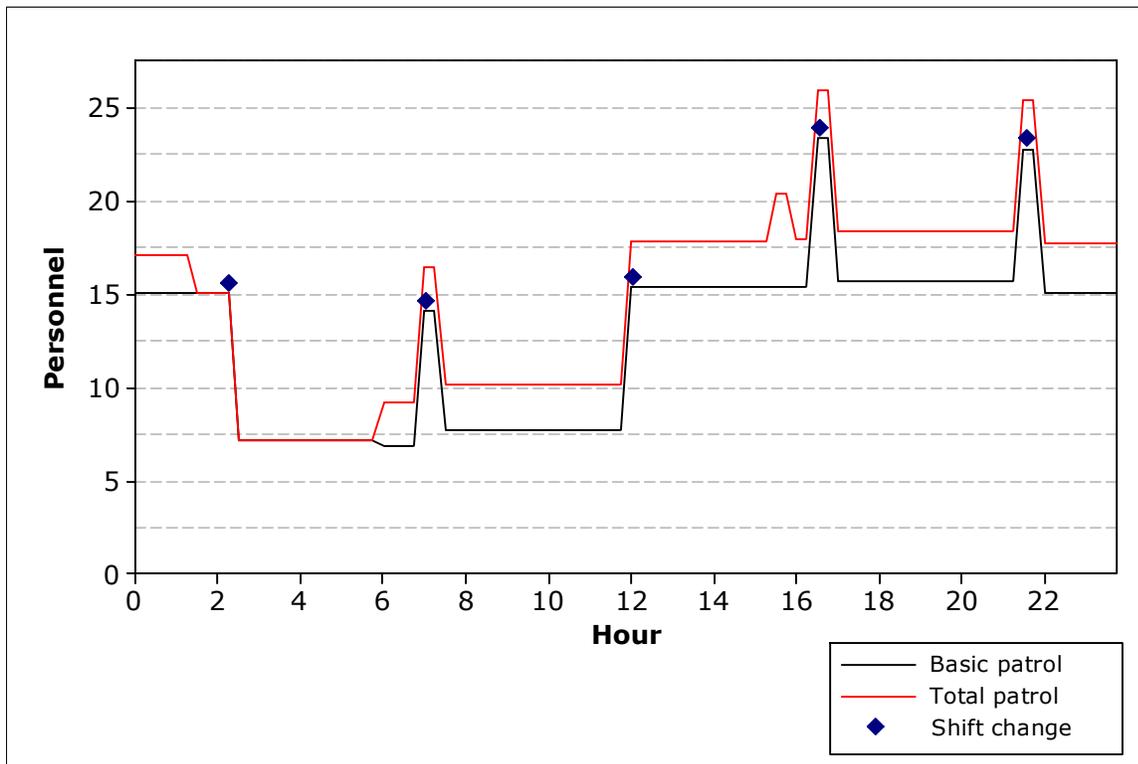
In this section, we describe the deployment and workload in distinct steps, distinguishing between summer and winter and between weekdays and weekends:

- First, we focus on patrol deployment, with and without additional units.
- Next, we compare the deployment against workload based on other-initiated calls for service.
- Afterward, we draw a similar comparison while including police-initiated workload.
- Finally, we draw a comparison based on "all" workload, which includes out-of-service and directed-patrol workload.

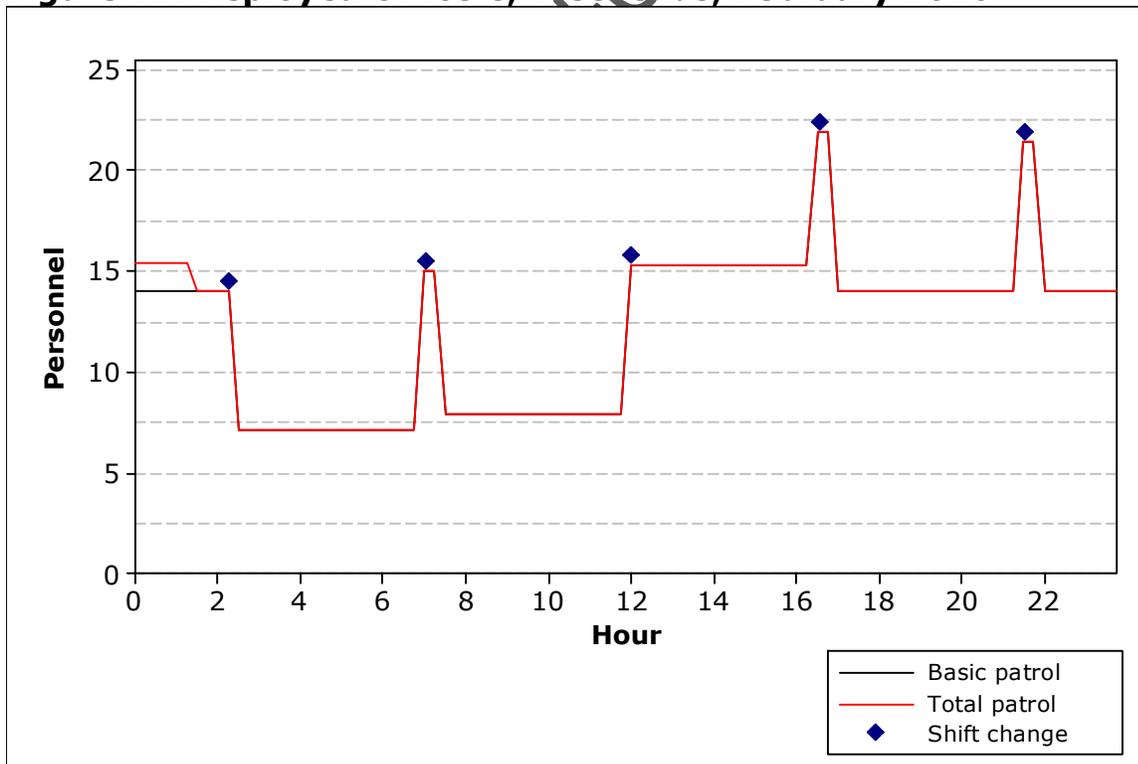
Comments follow each set of four figures, with separate discussions for summer and winter.

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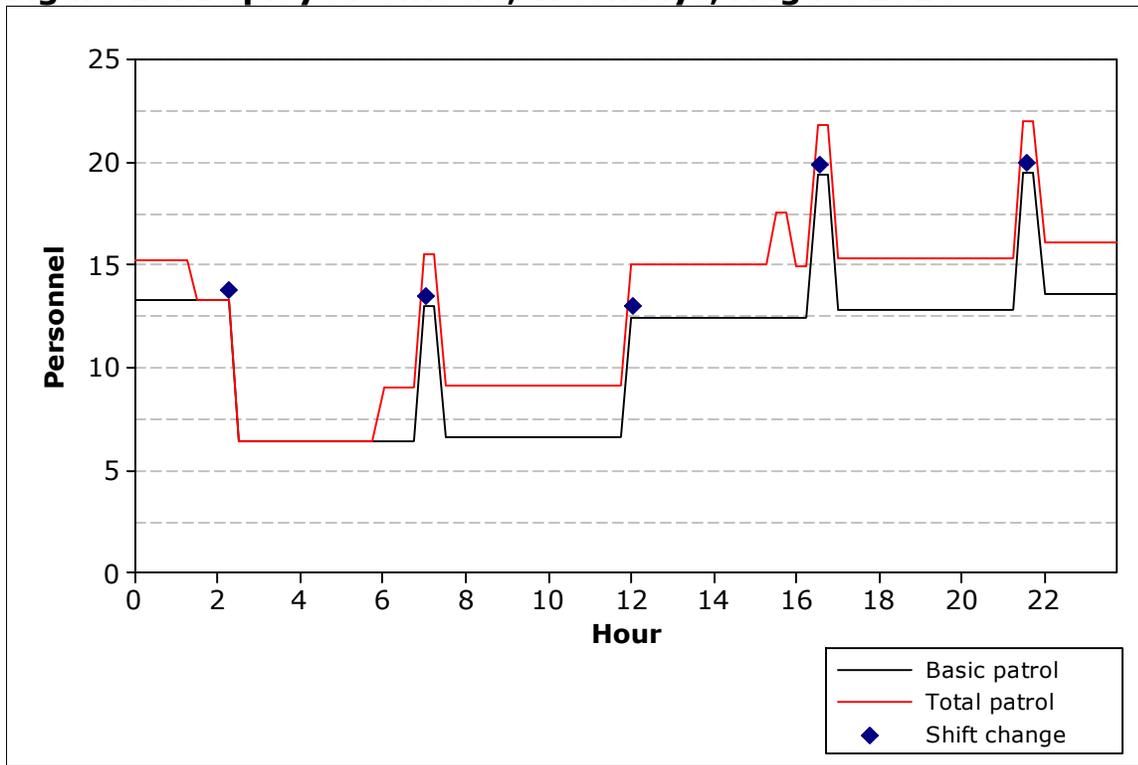
**Figure 11. Deployed Officers, Weekdays, February 2010**



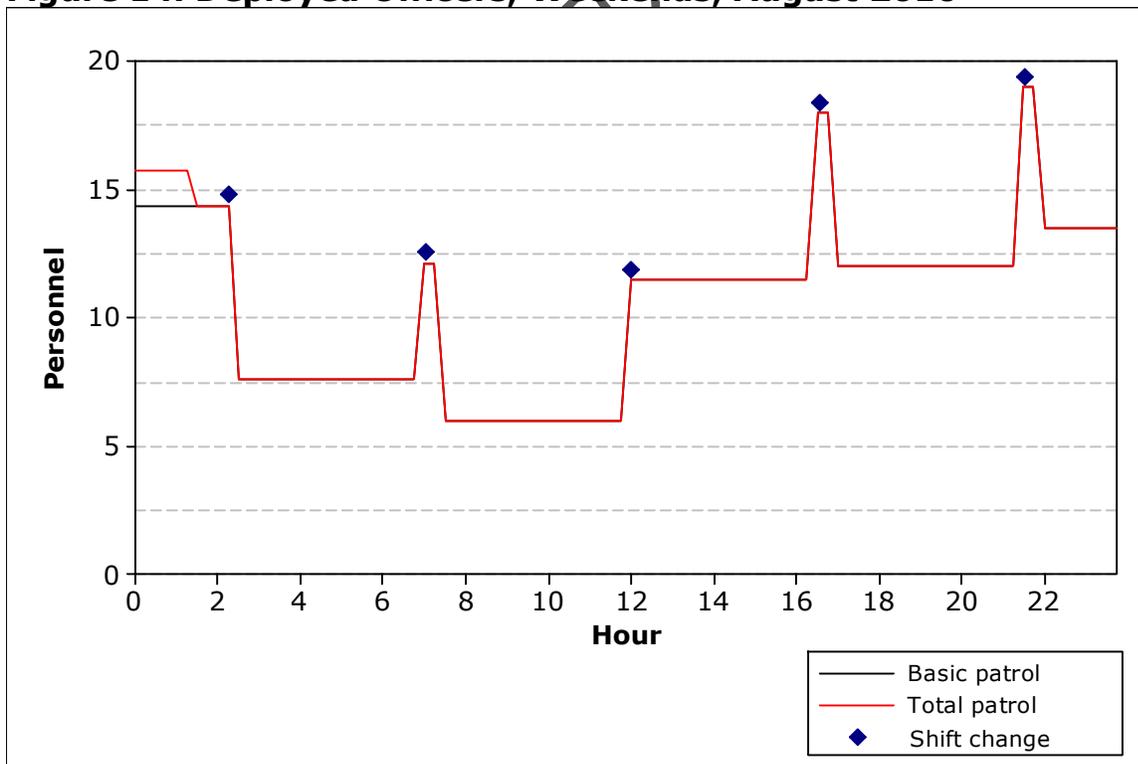
**Figure 12. Deployed Officers, Weekends, February 2010**



**Figure 13. Deployed Officers, Weekdays, August 2010**



**Figure 14. Deployed Officers, Weekends, August 2010**

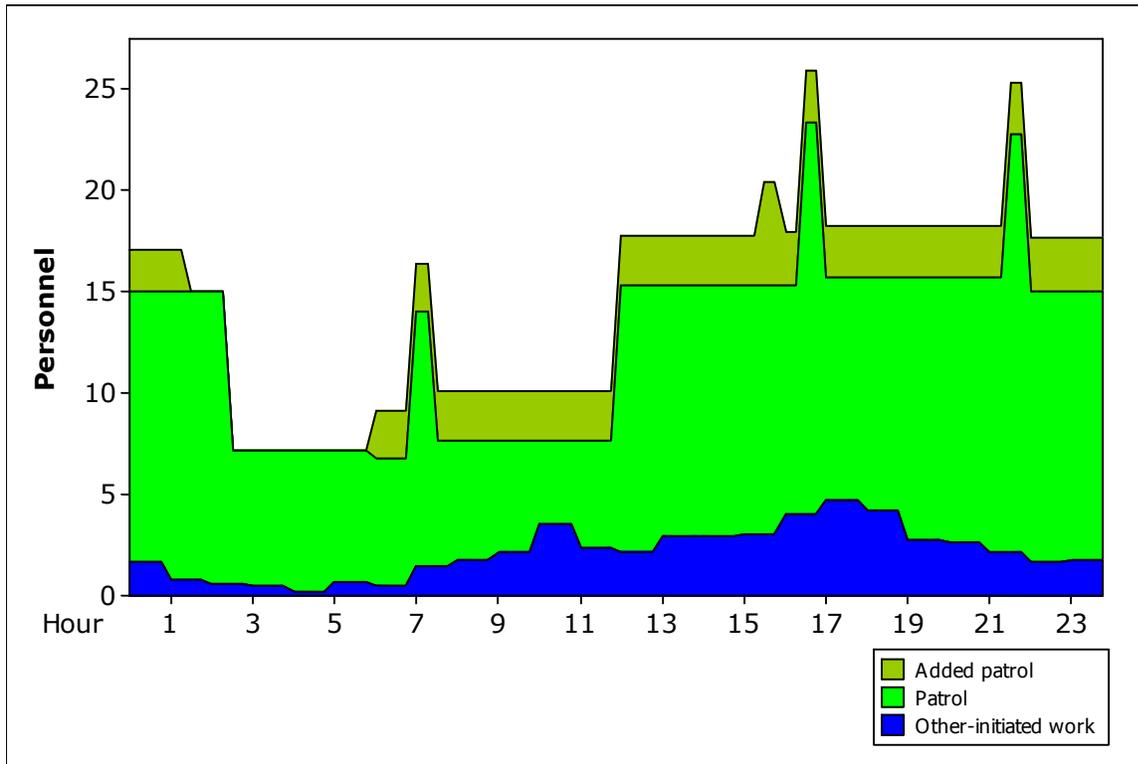


## Observations:

- For February 2010:
  - Average total deployment was approximately 12.7 officers during the week and 12.1 officers on weekends.
  - Ignoring the half-hour overlaps, basic deployment varied between 6.8 and 15.8 officers per hour on weekdays and between 7.1 and 15.3 officers per hour on weekends.
  - Traffic units raised average hourly deployment as high as 14.7 officers during the week, with the weekend average remaining approximately the same, at 12.2 officers.
- For August 2010:
  - Average total deployment was approximately 10.7 officers during the week and 10.6 officers on weekends.
  - Ignoring the half-hour overlaps, basic deployment varied between 6.4 and 13.6 officers per hour on weekdays and between 6 and 14.4 officers per hour on weekends.
  - Traffic units raised average hourly deployment as high as 12.8 officers during the week, with the weekend average remaining approximately the same, at 10.7 officers.

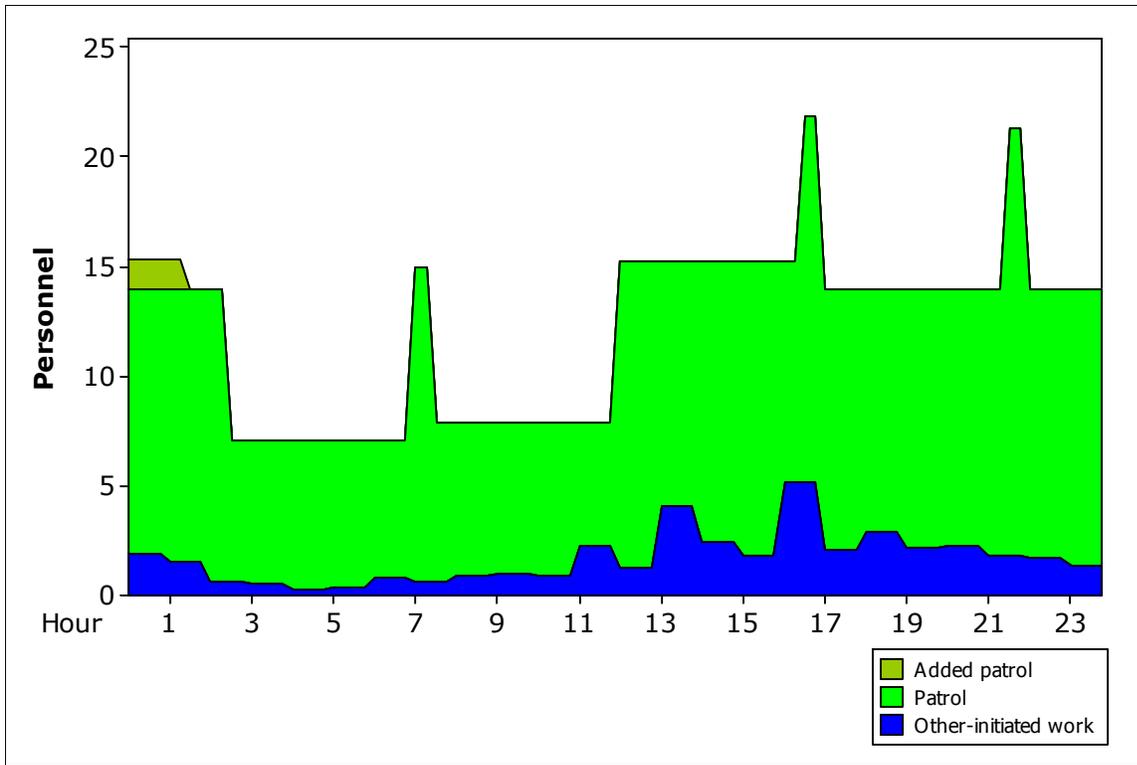
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**Figure 15. Deployment and Other-Initiated Workload, Weekdays, February 2010**

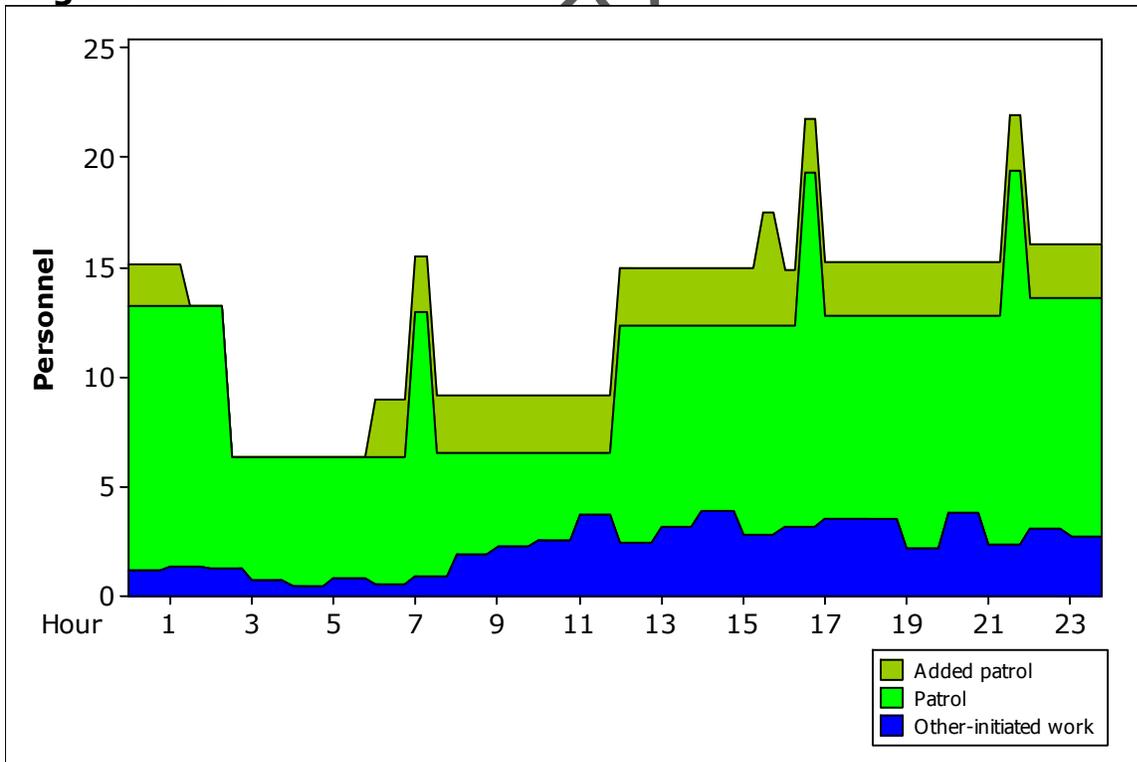


**Figure 16. Deployment and Other-Initiated Workload, Weekends, February 2010**

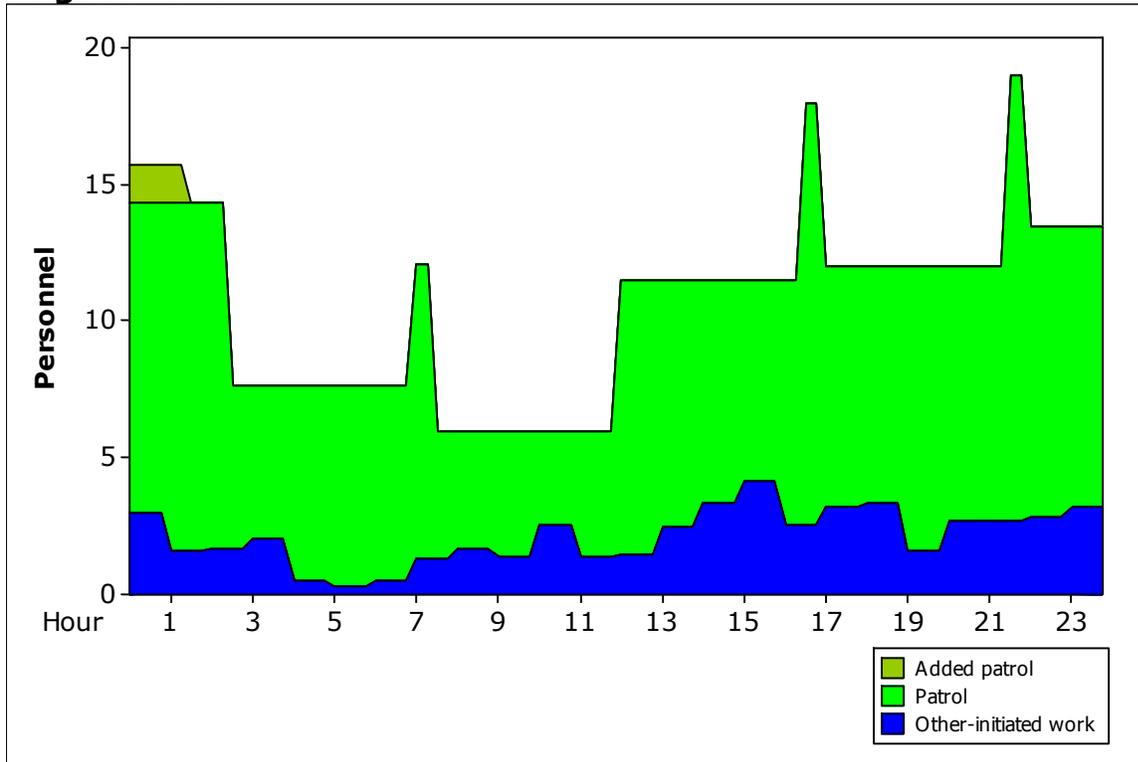
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**Figure 17. Deployment and Other-Initiated Workload, Weekdays, August 2010**



**Figure 18. Deployment and Other-Initiated Workload, Weekends, August 2010**



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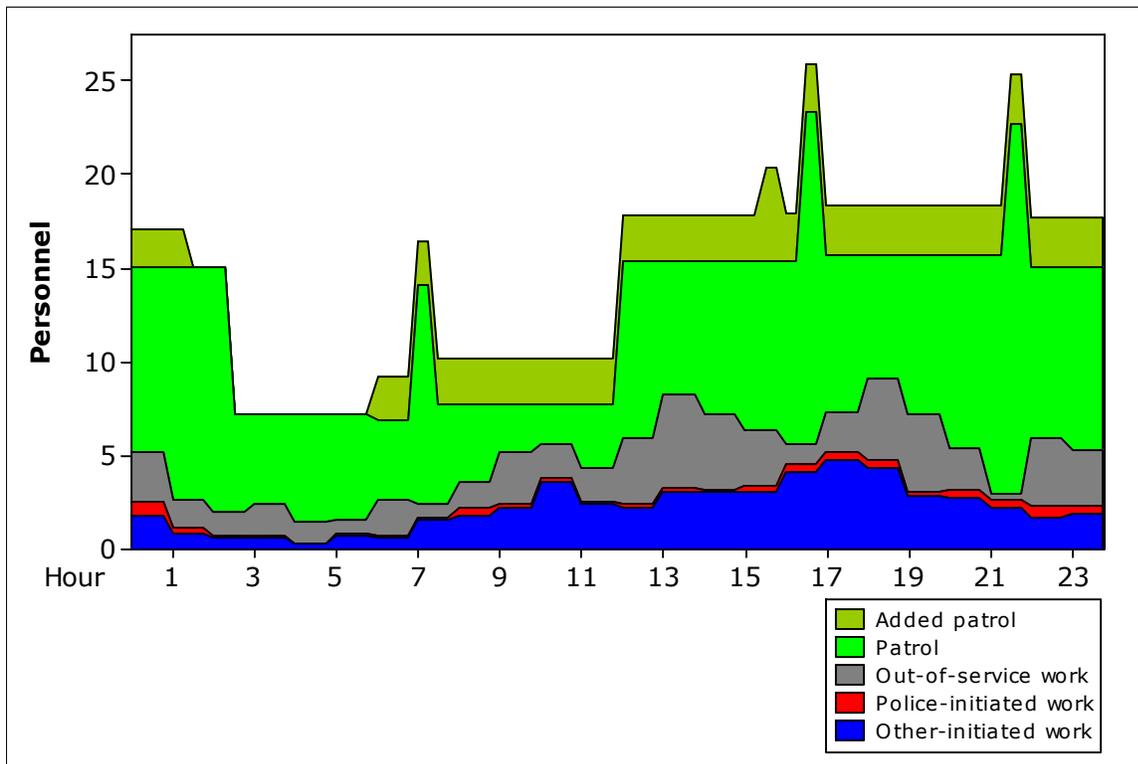
PLY

## Observations:

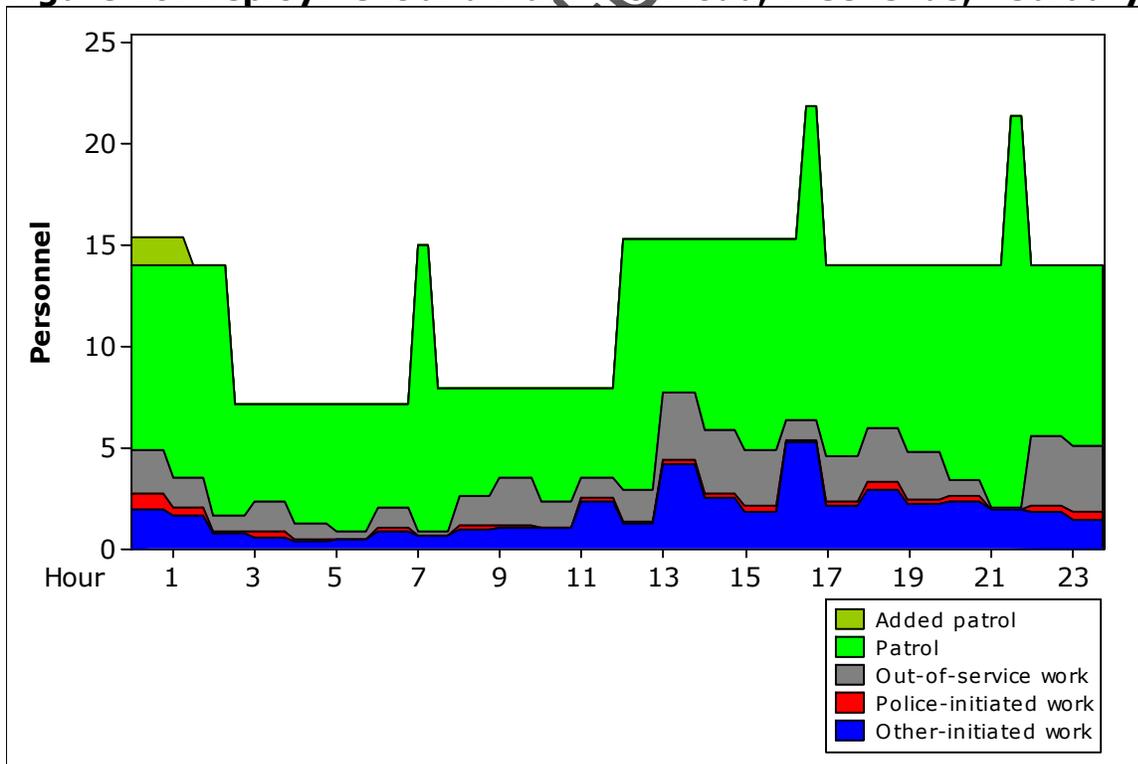
- For February 2010:
  - Average other-initiated workload was 2.1 officers per hour during the week and 1.7 officers per hour on weekends. This was approximately 15 percent of the hourly deployment during the week and 14 percent on weekends.
  - During the week, workload reached a maximum of 35 percent of deployment between 10 a.m. and 11 a.m.
  - On weekends, workload reached a maximum of 29 percent of deployment between 11 a.m. and noon.
- For August 2010:
  - Average other-initiated workload was 2.3 officers per hour during the week and 2.1 officers per hour on weekends. This was approximately 18 percent of hourly deployment during the week and 20 percent on weekends.
  - During the week, workload reached a maximum of 41 percent of deployment between 11 a.m. and noon.
  - On weekends, workload reached a maximum of 43 percent of deployment between 10 a.m. and 11 a.m.

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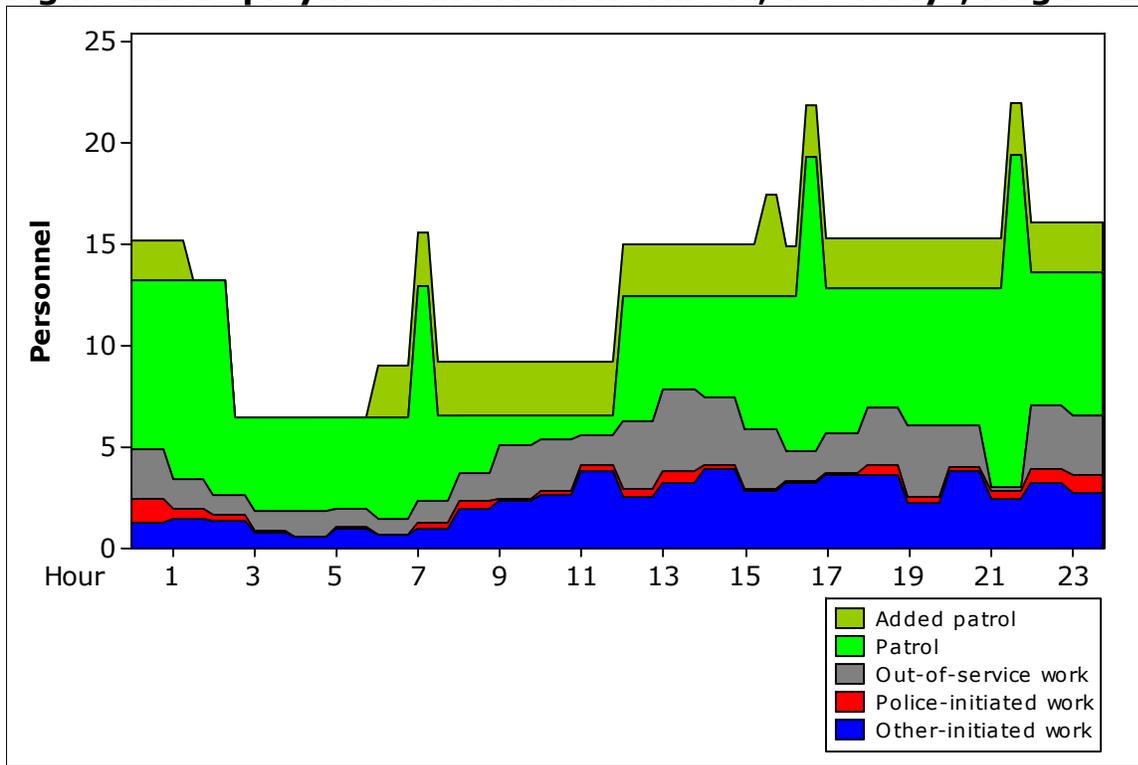
**Figure 19. Deployment and Main Workload, Weekdays, February 2010**



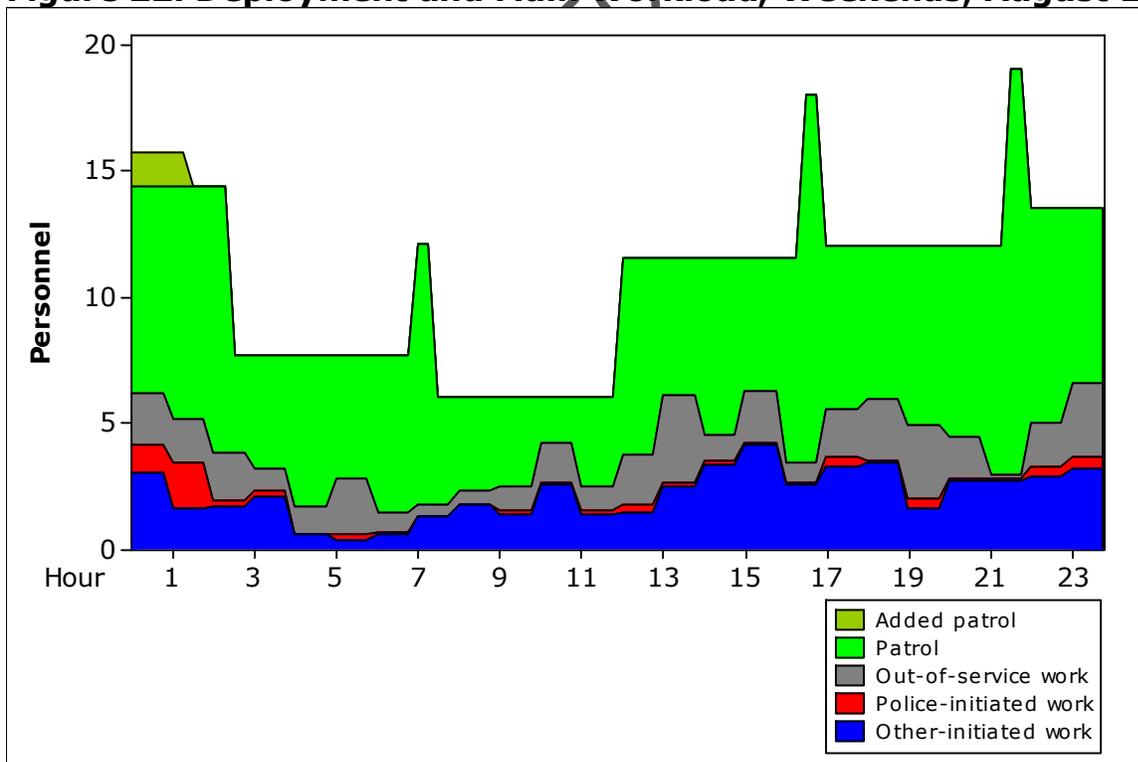
**Figure 20. Deployment and Main Workload, Weekends, February 2010**



**Figure 21. Deployment and Main Workload, Weekdays, August 2010**



**Figure 22. Deployment and Main Workload, Weekends, August 2010**



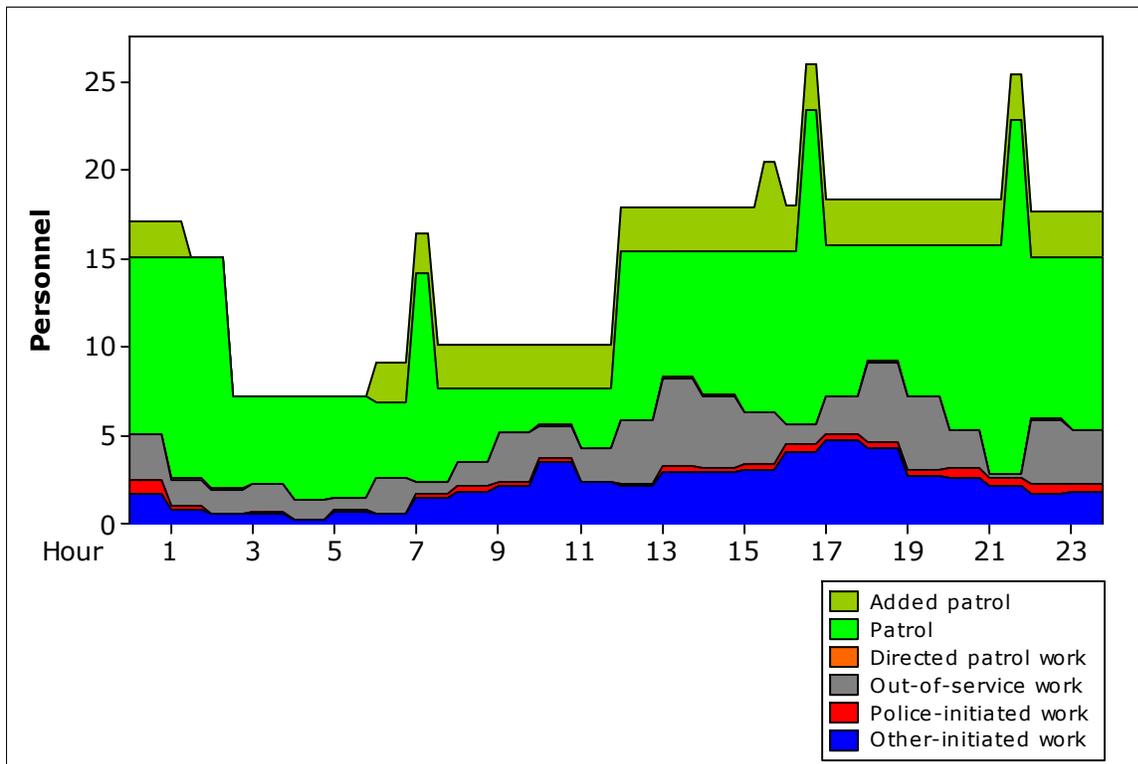
## Methodology:

These figures include deployment along with workload from other-initiated, police-initiated, and out-of-service activities.

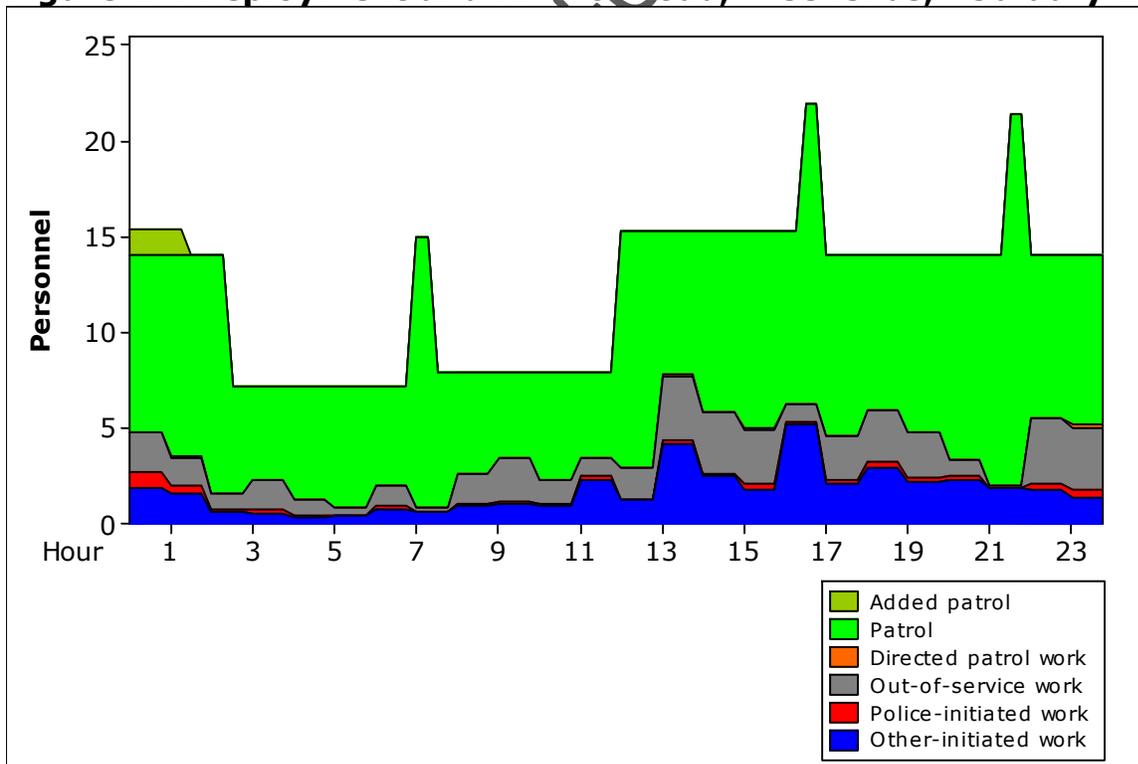
## Observations:

- For February 2010:
  - Average workload was 4.7 officers per hour during the week and 3.6 officers per hour on weekends. This was approximately 32 percent of hourly deployment during the week and 30 percent on weekends.
  - During the week, workload reached a maximum of 55 percent of deployment between 10 a.m. and 11 a.m.
  - On weekends, workload reached a maximum of 50 percent of deployment between 1 p.m. and 2 p.m.
- For August 2010:
  - Average workload was 4.7 officers per hour during the week and 4.0 officers per hour on weekends. This was approximately 36.5 percent of hourly deployment during the week and 37.5 percent on weekends.
  - During the week, workload reached a maximum of 60 percent of deployment between 11 a.m. and noon.
  - On weekends, workload reached a maximum of 70 percent of deployment between 10 a.m. and 11 a.m.

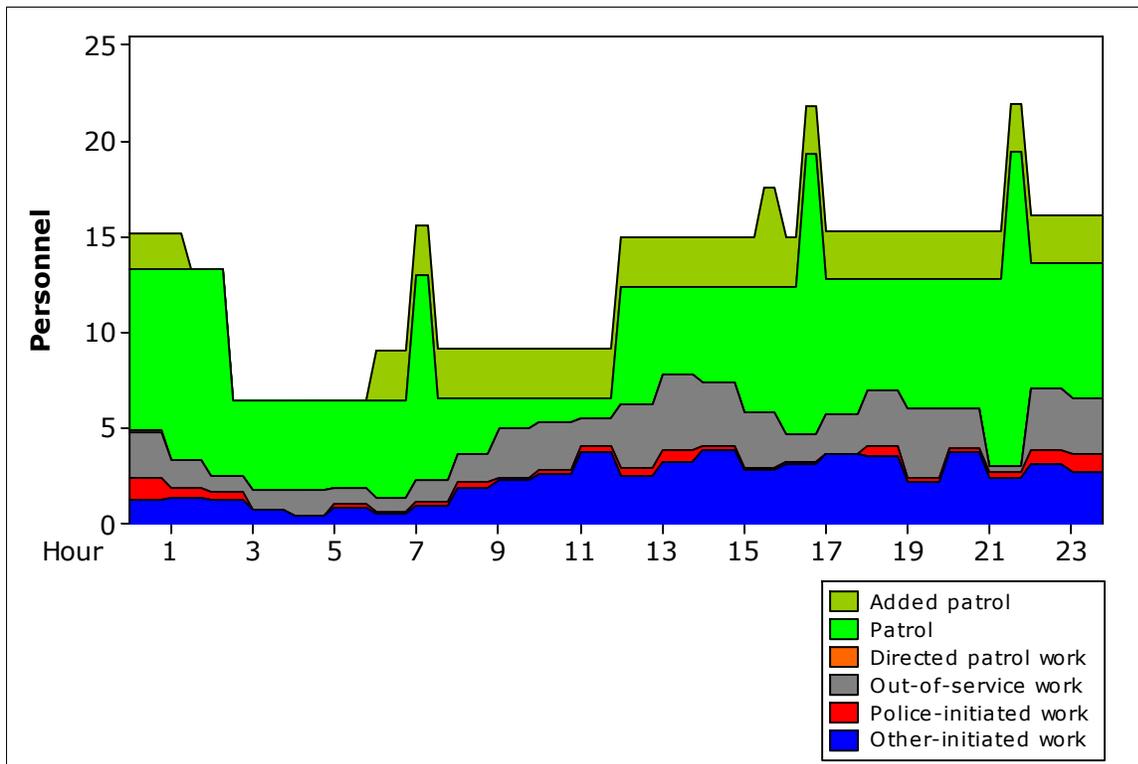
**Figure 23. Deployment and All Workload, Weekdays, February 2010**



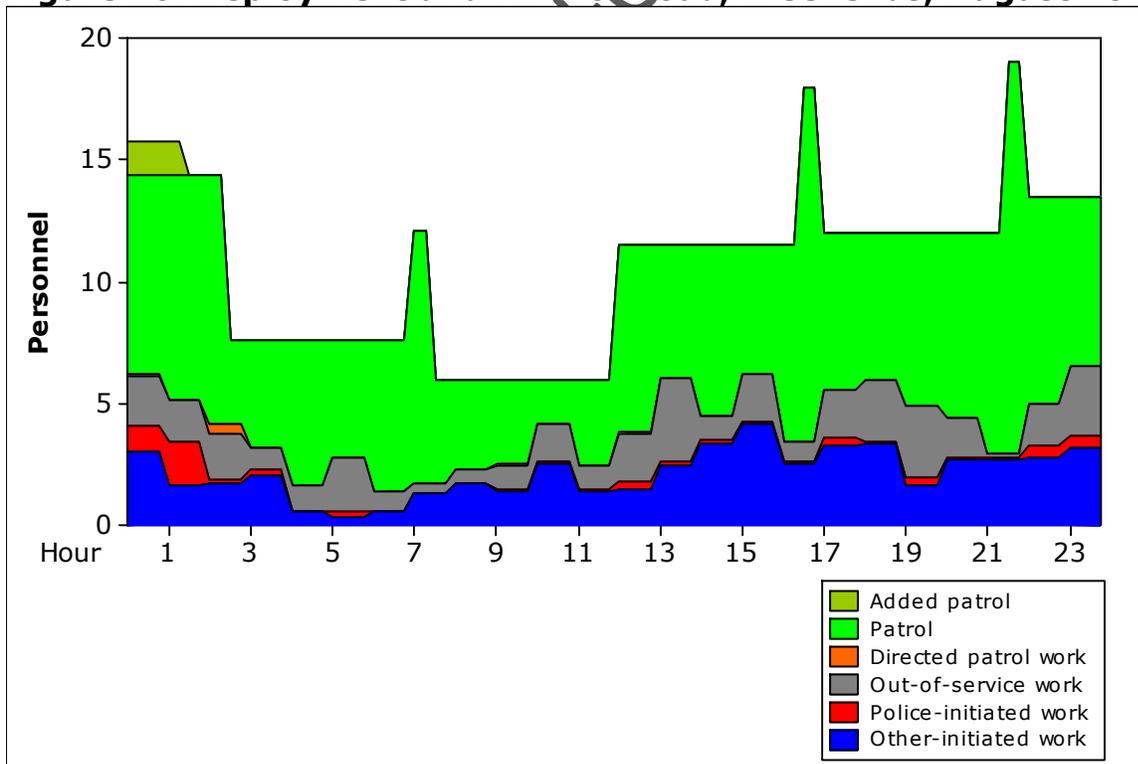
**Figure 24. Deployment and All Workload, Weekends, February 2010**



**Figure 25. Deployment and All Workload, Weekdays, August 2010**



**Figure 26. Deployment and All Workload, Weekends, August 2010**



## Methodology:

These figures include deployment along with all workload from other-initiated, police-initiated, out-of-service, and directed-patrol activities. While some additional directed-patrol work is shown, most is not recorded electronically.

## Observations:

- For February 2010:
  - Average workload was 4.8 officers per hour during the week and 3.7 officers per hour on weekends. This was approximately 32 percent of hourly deployment during the week and 30 percent on weekends.
  - During the week, workload reached a maximum of 55 percent of deployment between 10 a.m. and 11 a.m.
  - On weekends, workload reached a maximum of 51 percent of deployment between 1 p.m. and 2p.m.
- For August 2010:
  - Average workload was 4.7 officers per hour during the week and 4 officers per hour on weekends. This was approximately 37 percent of hourly deployment during the week and 38 percent on weekends.
  - During the week, workload reached a maximum of 60 percent of deployment between 11 a.m. and noon.
  - On weekends, workload reached a maximum of 70 percent of deployment between 10 a.m. and 11 a.m.

## **IV. Response Times**

We analyzed the response times to various types of calls, separating the duration into dispatch and travel times. We begin the discussion with statistics that include all calls combined. We analyzed several types of calls to determine whether response times varied by call type.

Before presenting the specific figures and tables, we summarize all the observations. We started with 4,474 events for winter (February 2010) and 4,764 events for summer (August 2010). We limited our analysis to other-initiated calls. We also encountered some calls without arrival times that we were forced to exclude from our analysis due to lack of information. This left 1,094 calls in February and 1,760 calls in August.

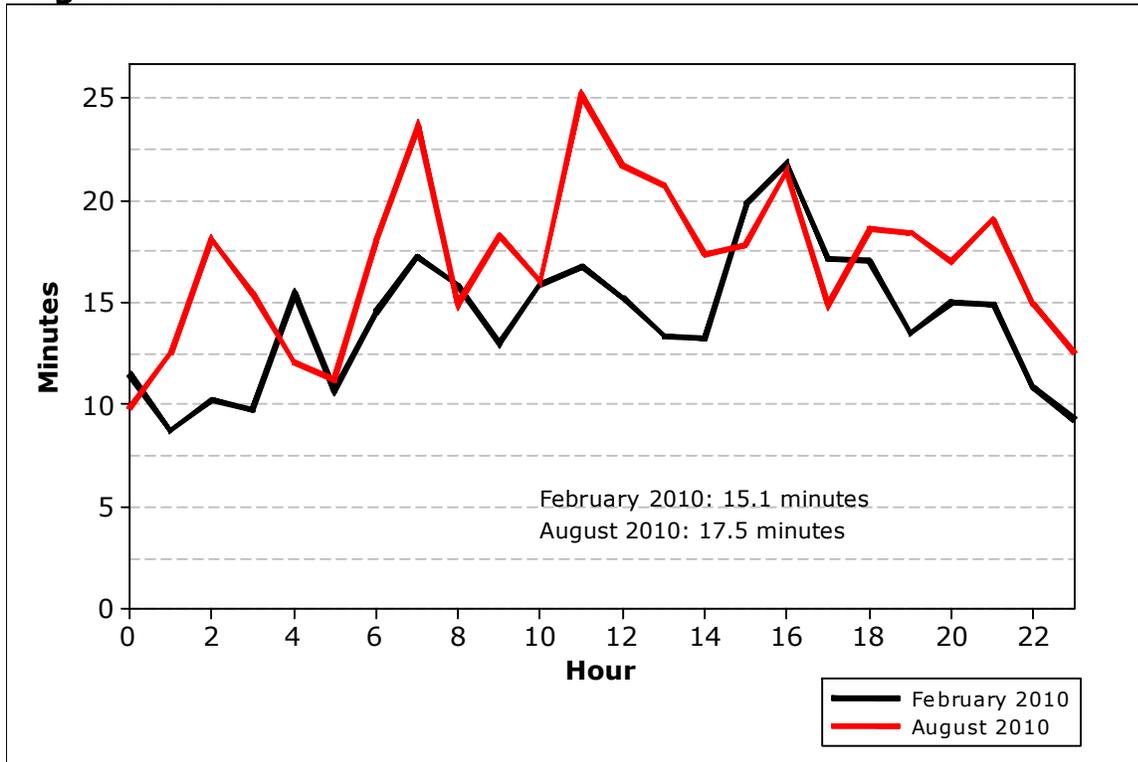
Our initial analysis does not distinguish calls based on their priority. Instead, it examines the difference in response by time of day and compares summer and winter periods. After the overall statistics, we present an analysis of response time based on a call's priority. We focus on high-priority calls for the entire year, which shows that the response times for high-priority calls are significantly shorter than the overall average.

Response time is measured as the difference between when a call is received and when the first unit arrives on scene. This is separated into dispatch delay and travel time. Dispatch delay is the time from when a call is received until a unit is dispatched. Travel time is the time from when the first unit is dispatched until the first unit arrives.

### **A. All Calls**

This section looks at all calls received, regardless of priority, to examine the differences in response by both time of day and season (summer versus winter).

**Figure 27. Average Response Time, by Hour of Day, for February and August 2010**



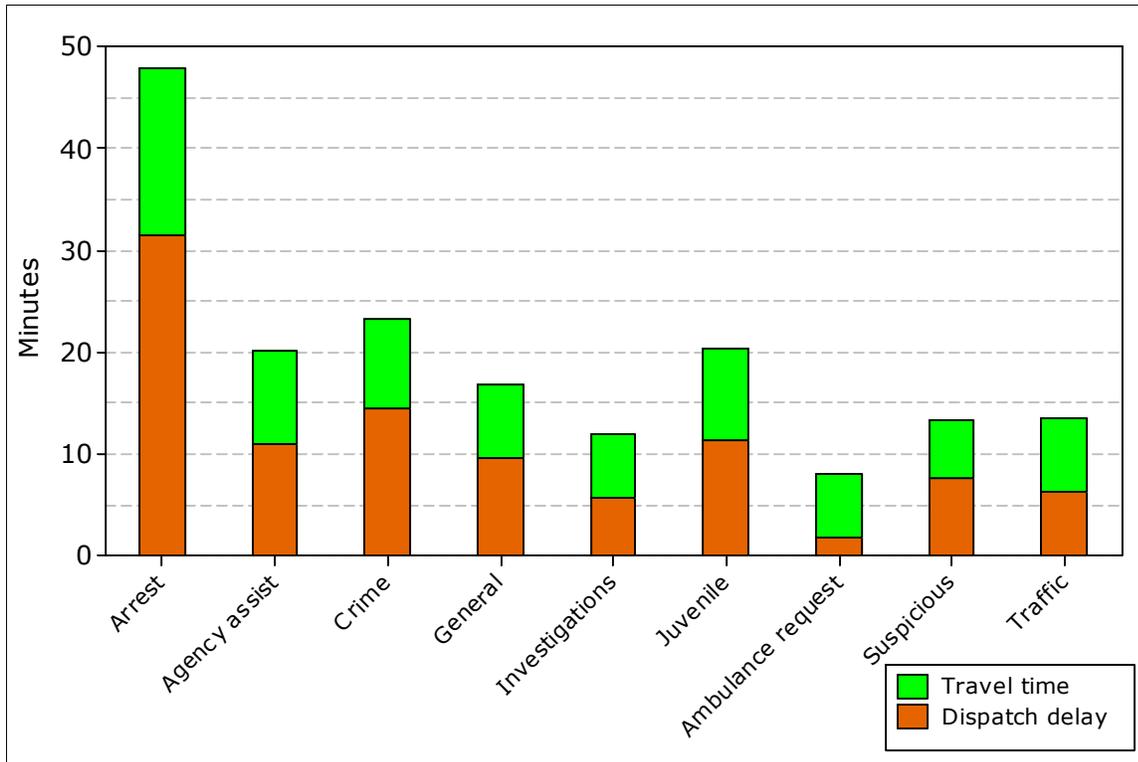
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## Observations:

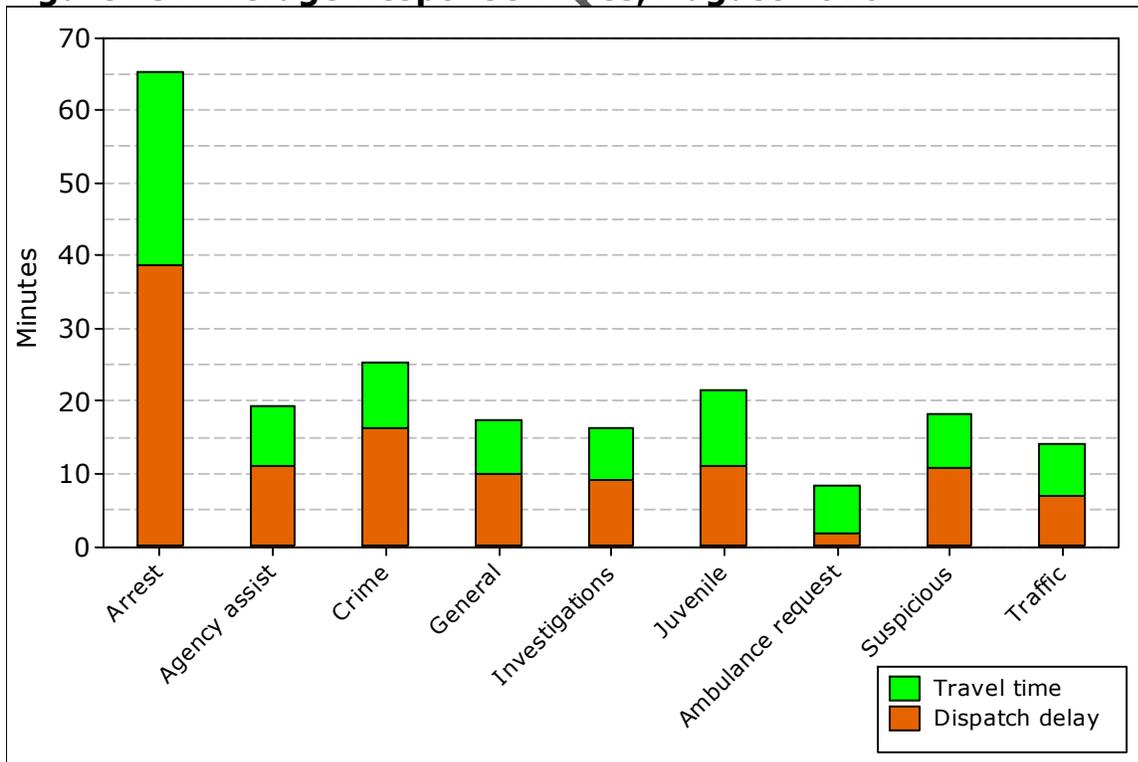
- Average response times varied significantly by hour of day.
- The overall average was slightly lower in February than it was in August.
- In February, the longest response times were an average of 21.8 minutes during the afternoon shift change between 4 p.m. and 5 p.m.
- In February, the shortest response times were between 1 a.m. and 2 a.m., with an average of 8.7 minutes.
- In August, the longest response times were an average of 25.2 minutes right before the noon shift change, between 11 a.m. and noon.
- In August, the shortest response times were between midnight and 1 a.m., with an average of 9.8 minutes.

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**Figure 28. Average Response Times, February 2010**



**Figure 29. Average Response Times, August 2010**



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**Table 11. Average Response Time Components, by Category**

Category	February 2010			August 2010		
	Dispatch	Travel	Response	Dispatch	Travel	Response
Arrest—warrant/transport	31.5	16.4	47.9	38.7	26.6	65.3
Assist other agency	10.9	9.2	20.2	11.0	8.2	19.2
Crime—reports & arrests	14.4	8.8	23.2	16.1	9.2	25.4
General	9.6	7.2	16.8	9.8	7.5	17.3
Investigations	5.7	6.2	11.9	9.0	7.3	16.3
Juvenile	11.3	9.1	20.3	10.9	10.4	21.3
Request for ambulance	1.8	6.2	8.0	1.8	6.5	8.3
Suspicious	7.6	5.7	13.3	10.7	7.3	18.0
Traffic	6.2	7.1	13.4	6.8	7.2	14.1
<b>Total</b>	<b>7.9</b>	<b>7.2</b>	<b>15.1</b>	<b>9.7</b>	<b>7.9</b>	<b>17.5</b>

*Note:* The total average is weighted according to the number of calls per category.

#### Observations:

- Response times varied significantly by call category.
- In February, average response times were as short as 8.0 minutes (for ambulance requests) and as long as 47.9 minutes (for arrests).
- In August, average response times were as short as 8.3 minutes (for ambulance requests) and as long as 65.3 minutes (for arrests).
- Average response times for crimes were 23.2 minutes during February and 25.4 minutes during August.
- In February, average dispatch delays varied between 1.8 minutes (for ambulance requests) and 31.5 minutes (for arrests).

- In August, average dispatch delays varied between 1.8 minutes (for ambulance requests) and 38.7 minutes (for arrests).

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**Table 12. 90th Percentiles for Response-Time Components, by Category**

Category	February 2010			August 2010		
	Dispatch	Travel	Response	Dispatch	Travel	Response
Arrest—warrant/transport	168.6	200.0	299.1	311.8	84.3	318.0
Assist other agency	40.7	22.3	49.4	44.4	19.7	54.0
Crime—reports & arrests	55.3	16.0	71.2	59.7	18.5	70.8
General	33.8	14.8	45.1	33.7	14.9	45.7
Investigations	16.1	11.9	25.3	24.6	14.2	32.8
Juvenile	37.0	37.3	72.8	36.4	22.0	45.8
Request for ambulance	3.2	11.2	12.8	2.8	11.3	12.9
Suspicious	22.0	11.3	28.4	27.3	12.6	39.6
Traffic	15.3	14.3	24.9	18.4	15.8	29.6
<b>Total</b>	<b>22.4</b>	<b>13.4</b>	<b>32.8</b>	<b>29.7</b>	<b>15.3</b>	<b>43.6</b>

*Note:* A 90th-percentile value of 33.0 minutes means that 90 percent of all calls were responded to in fewer than 12 minutes. For this reason, the columns for dispatch delay and travel time do not add to total response time.

Observations:

- In February, 90th-percentile values for response times were as short as 13 minutes (for ambulance requests) and nearly 5 hours (for arrests).
- In August, 90th-percentile values for response times were as short as 13 minutes (for ambulance requests) and exceeded 5 hours (for arrests).

## B. High-Priority Calls

A priority code is assigned to each event type in the CAD systems tables. This places the call in the dispatch pending events list by priority, with 0 as the highest priority and 9 as the lowest priority. The CAD system makes no distinction of in-progress crimes, incidents or report runs. Priorities are general groupings and should be viewed as such. Dispatches are made based on all available information at the time of the call.

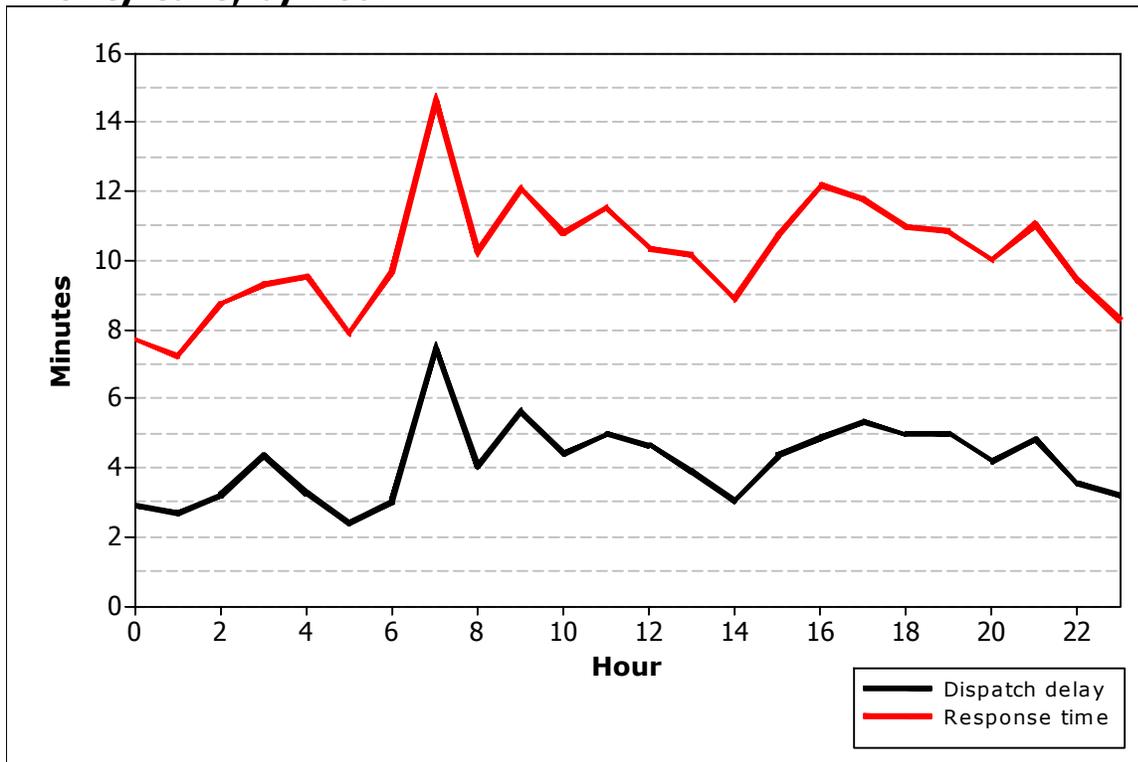
Table 13 shows average response times by priority. Calls assigned to priority codes 0 through 2 were classified as high priority calls. These averages included nonzero-on-scene other-initiated calls throughout the year from September 2009 to August 2010. There were 16,554 other-initiated calls with valid response times. All these calls were assigned a priority. There were no priority 7 calls.

**Table 13. Average Dispatch, Travel, and Response Times, by Priority**

<b>Priority</b>	<b>Dispatch</b>	<b>Travel</b>	<b>Response</b>	<b>Total Calls</b>
High	4.3	6.2	10.5	5,828
Low	12.0	7.8	19.8	10,726
<b>All</b>	<b>9.3</b>	<b>7.2</b>	<b>16.6</b>	<b>16,554</b>
Accidents with injury	2.7	7.2	10.0	230

*Note:* The total average is weighted according to the number of calls within each priority level.

**Figure 30. Average Response Times and Dispatch Delays for High-Priority Calls, by Hour**



Observations:

- High-priority calls (priorities 0-2) had a shorter average response time of 10.5 minutes compared with the overall yearly average of 16.6 minutes.
- Average dispatch delay was 4.3 minutes for high-priority calls and 9.3 minutes overall.
- The shortest average response time for high-priority calls was 7.2 minutes, between 1 a.m. and 2 a.m.
- The longest average response time for high-priority calls was approximately 14.6 minutes, between 7 a.m. and 8 a.m.
- Average dispatch delay for high-priority calls was 5 minutes or less, except between 7 a.m. and 8 a.m., when it was 7.5 minutes and between 9 a.m. and 10 a.m., when it was 5.6 minutes.

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## APPENDIX

Call Category	Class
C3170 PRIVATE PROPERTY TRAFFIC CRASH	Accidents, Private Property
C3175 PRIVATE PROPERTY H&R TRAFFIC CRASH	Accidents, Private Property
C3177 FATAL PRIVATE PROPERTY TRAFFIC CRASH	Accidents, Private Property
C3743 TRAFFIC COMPLAINT/PPDA/POLICE VEHICLE	Accidents, Private Property
C3242 MEDICAL ALARM	Alarm
C3902 BURGLARY ALARM	Alarm
C3904 OPEN ALARM	Alarm
C3906 ROBBERY ALARM	Alarm
C3907 PANIC ALARM	Alarm
C3908 MEDICAL ALARM	Alarm
C3909 DURESS ALARM	Alarm
C3910 VEHICLE ALARM	Alarm
C3999 ALARMS ALL OTHER	Alarm
5561 ANIMALS AT LARGE	Animal Calls
5586 ANIMALS—CRUELTY TO	Animal Calls
7301 ANIMAL ORD—BARKING DOG	Animal Calls
7303 ANIMAL ORD—TOO MANY	Animal Calls
7306 ANIMAL ORD—DANGEROUS ANIMAL AT LARGE	Animal Calls
7310 ANIMAL ORD—OTHER VIOLATION	Animal Calls
C3802 ANIMAL PATROL	Animal Calls
C3803 ANIMAL BARKING DOG	Animal Calls
C3804 ANIMAL COMPLAINT	Animal Calls
C3806 ANIMAL ALIVE—PUT TO SLEEP	Animal Calls
C3808 ANIMAL BITE/SCRATCH	Animal Calls
C3810 ANIMAL DEAD—CREMATION	Animal Calls
C3812 ANIMAL PICK-UP—ALIVE	Animal Calls
C3814 ANIMAL PICK-UP—DEAD	Animal Calls

<b>Call Category</b>	<b>Class</b>
C3816 ANIMAL TRAP REQUEST/SET	Animal Calls
C3330 ASSIST OTHER LAW ENFORCEMENT AGENCY	Assist Other Government Agency/Jurisdiction
C3331 ASSIST MEDICAL	Assist Other Government Agency/Jurisdiction
C3332 ASSIST FIRE DEPARTMENT	Assist Other Government Agency/Jurisdiction
C3334 ASSIST OTHER GOVT AGENCY	Assist Other Government Agency/Jurisdiction
C3338 ARREST ASSIST—OTHER AGENCY	Assist Other Government Agency/Jurisdiction
C3750 TRAFFIC COMPLAINT/AIRCRAFT ACCIDENT	Assist Other Government Agency/Jurisdiction
L3518 CLAWSON—AOD—TR	Assist Other Government Agency/Jurisdiction
L3519 CLAWSON MEDICAL—TR	Assist Other Government Agency/Jurisdiction
L5035 FIRE, BRUSH, GRASS, OUTSIDE—TR	Assist Other Government Agency/Jurisdiction
L5054 WIRES DOWN—TR	Assist Other Government Agency/Jurisdiction
L5055 SMOKE INVESTIGATION—TR	Assist Other Government Agency/Jurisdiction
4803 MAKING FALSE REPORT	Check/Investigation
4873 FALSE PERSONATION OF POLICE OFFICER	Check/Investigation
4899 OBSTRUCT POLICE (OTHER)	Check/Investigation
5005 CONTEMPT OF COURT (PPO VIOLATION, ETC.)	Check/Investigation
5007 OBSTRUCTING COURT ORDER	Check/Investigation
5008 JUDICIAL OFFICER MISCONDUCT	Check/Investigation
5012 PROBATION VIOLATION	Check/Investigation
5015 FAILURE TO APPEAR	Check/Investigation
5070 VIOLATION OF PRELIMINARY INJUNCTIVE ORDER (PEACE BOND)	Check/Investigation
5089 FAILURE TO REGISTER (SEX OFFENDER)	Check/Investigation
5090 FAILURE TO COMPLY WITH REPORTING DUTIES (SEX OFFENDER)	Check/Investigation
5215 INTIMIDATION—THREAT TO BOMB	Check/Investigation
BUILDING CHECK	Check/Investigation
C3208 DEATH INVESTIGATION—CAUSE UNKNOWN	Check/Investigation
C3313 CONFISCATED PROPERTY	Check/Investigation

<b>Call Category</b>	<b>Class</b>
C3314 MISSING PERSONS	Check/Investigation
C3316 LOST PROPERTY	Check/Investigation
C3318 FOUND PROPERTY	Check/Investigation
C3319 FOUND BICYCLE	Check/Investigation
C3320 OPEN BUILDINGS	Check/Investigation
C3342 RECOVERED STOLEN PROPERTY—OTHER JURISDICTION	Check/Investigation
C3344 RECOVERED STOLEN VEHICLE—OTHER JURISDICTION	Check/Investigation
C3345 ACCIDENTAL PROPERTY DAMAGE	Check/Investigation
C3351 CIVIL—LANDLORD/TENANT	Check/Investigation
C3352 CIVIL—VEHICLE TAKEN WITHOUT PERMISSION	Check/Investigation
C3354 CIVIL—FAIL TO RETURN BORROWED VEHICLE	Check/Investigation
C3355 CIVIL MATTER—OTHER	Check/Investigation
C3360 DISCHARGE OF WEAPON BY OFFICER	Check/Investigation
C3391 EMPLOYEE TROUBLE	Check/Investigation
C3746 TRAFFIC COMPLAINT/DAMAGE TO POLICE VEHICLE	Check/Investigation
INCIDENT ASSIST/BACKUP	Check/Investigation
L3514 SEX OFFENDER ADDRESS VERIFICATION—TR	Check/Investigation
L3591 UNKNOWN NOISE INVESTIGATION—TR	Check/Investigation
L3597 FRAUD ID INVESTIGATION—TR	Check/Investigation
SUBDIVISION CHECK	Check/Investigation
C3333 ASSIST MOTORIST	Citizen Assist
C3335 ASSIST CITIZEN—PUSH BUMPER	Citizen Assist
C3336 ASSIST CITIZEN	Citizen Assist
C3337 ASSIST CITIZEN—VEHICLE LOCKOUT	Citizen Assist
C3101 ACC, SINGLE MOTOR VEHICLE	Crashes—Reportable
C3112 ACC, INJURY TYPE A	Crashes—Reportable

<b>Call Category</b>	<b>Class</b>
C3113 ACC, INJURY TYPE B	Crashes—Reportable
C3114 ACC, INJURY TYPE C	Crashes—Reportable
C3145 PROPERTY DAMAGE TRAFFIC CRASH PDA	Crashes—Reportable
C3146 PROPERTY DAMAGE—HBD TRAFFIC CRASH	Crashes—Reportable
C3148 MOTOR VEHICLE—ANIMAL TRAFFIC CRASH	Crashes—Reportable
C3150 PROPERTY DAMAGE H&R TRAFFIC CRASH	Crashes—Reportable
C3155 PERSONAL INJURY TRAFFIC CRASH PIA	Crashes—Reportable
C3156 PERSONAL INJURY—HBD TRAFFIC CRASH	Crashes—Reportable
C3157 PEDESTRIAN—NO INJURY TRAFFIC CRASH	Crashes—Reportable
C3158 PEDESTRIAN—PERSONAL INJURY TRAFFIC CRASH	Crashes—Reportable
C3159 BICYCLE—PERSONAL INJURY TRAFFIC CRASH	Crashes—Reportable
C3160 PERSONAL INJURY—H&R TRAFFIC CRASH	Crashes—Reportable
C3165 FATAL TRAFFIC CRASH	Crashes—Reportable
C3171 PRIVATE PROPERTY—PERSONAL INJURY TRAFFIC CRASH	Crashes—Reportable
C3172 PRIVATE PROPERTY—PEDESTRIAN—PERSONAL INJURY TRAFFIC CRASH	Crashes—Reportable
C3199 ALL OTHER TRAFFIC CRASHES	Crashes—Reportable
0901 MURDER—WILLFUL KILLING—FAMILY—GUN	Crime—Persons
1171 CSC 1ST DEGREE—PENETRATION PENIS/VAGINA	Crime—Persons
1172 CSC 3RD DEGREE—PENETRATION PENIS/VAGINA	Crime—Persons
1174 CSC 3RD DEGREE—PENETRATION ORAL/ANAL	Crime—Persons
1177 CSC 2ND DEGREE—FORCIBLE CONTACT	Crime—Persons
1178 CSC 4TH DEGREE—FORCIBLE CONTACT	Crime—Persons
1203 ROBBERY—BUSINESS—STRONG ARM	Crime—Persons
1206 ROBBERY—STREET—STRONG ARM	Crime—Persons
1207 ROBBERY—RESIDENCE—GUN	Crime—Persons
1270 ROBBERY—MOTOR VEHICLE (CAR JACKING)	Crime—Persons

<b>Call Category</b>	<b>Class</b>
1298 ATTEMPTED ROBBERY—ARMED	Crime—Persons
1299 ROBBERY (OTHER)	Crime—Persons
1301 AGG/FEL ASSAULT—FAMILY—GUN—DOMESTIC	Crime—Persons
1302 AGG/FEL ASSAULT—FAMILY—OTHER WEAPON—DOMESTIC	Crime—Persons
1304 AGG/FEL ASSAULT—NON-FAMILY—GUN	Crime—Persons
1305 AGG/FEL ASSAULT—NON-FAMILY—OTHER WEAPON	Crime—Persons
1311 AGG/FEL ASSAULT—POLICE OFFICER—OTHER WEAPON	Crime—Persons
1312 AGG/FEL ASSAULT—POLICE OFFICER	Crime—Persons
1313 ASSAULT/BATTERY/SIMPLE (INCLUDES DOMESTIC AND POLICE OFFICER)	Crime—Persons
1316 INTIMIDATION	Crime—Persons
1380 TELEPHONE USED FOR HARASSMENT, THREATS	Crime—Persons
1382 STALKING (MISDEMEANOR)	Crime—Persons
1384 COMPUTER/INTERNET USED FOR HARASSMENT, THREATS	Crime—Persons
1385 OTHER ELECTRONIC MEDIUM USED FOR HARASSMENT, THREATS	Crime—Persons
1396 ASSAULT LESS THAN MURDER	Crime—Persons
1399 ASSAULT (OTHER)	Crime—Persons
2101 EXTORTION—THREAT TO INJURE PERSON	Crime—Persons
3605 INDECENT EXPOSURE	Crime—Persons
3611 PEEPING TOM	Crime—Persons
3699 SEX OFFENSE (OTHER)	Crime—Persons
3805 CONTRIBUTE TO DELINQUENCY OF MINOR (EXCEPT ALCOHOL)	Crime—Persons
3806 NEGLECT CHILD	Crime—Persons
3898 CRUELTY/NEGLECT (OTHER)	Crime—Persons
3899 FAMILY OFFENSE (OTHER)	Crime—Persons
4801 RESISTING OFFICER	Crime—Persons

<b>Call Category</b>	<b>Class</b>
5309 HARASSING COMMUNICATIONS	Crime—Persons
2099 ARSON (OTHER)	Crime—Property
2102 EXTORTION—THREAT TO DAMAGE PROPERTY	Crime—Property
2202 B&E—BURGLARY—FORCED ENTRY—RESIDENCE—HOME INVASION	Crime—Property
2203 B&E—BURGLARY—FORCED ENTRY—NON-RESIDENCE	Crime—Property
2204 B&E—BURGLARY—NO FORCED ENTRY—RESIDENCE—HOME INVASION	Crime—Property
2205 B&E—BURGLARY—NO FORCED ENTRY—NON-RESIDENCE	Crime—Property
2275 BURGLARY—UNOCCUPIED BUILDING OR OTHER STRUCTURE	Crime—Property
2298 BURGLARY—ENTERING WITHOUT PERMISSION	Crime—Property
2299 BURGLARY—OTHER FORCED ENTRY	Crime—Property
2301 LARCENY—POCKET PICKING	Crime—Property
2302 LARCENY—PURSE SNATCHING—NO FORCE	Crime—Property
2304 LARCENY—PARTS & ACCESSORIES FROM VEHICLE—LFA	Crime—Property
2305 LARCENY—PERSONAL PROPERTY FROM VEHICLE—LFA	Crime—Property
2307 LARCENY—FROM COIN MACHINES (INCLUDES TELEPHONE COIN BOX)	Crime—Property
2308 LARCENY—FROM BUILDING (INCLUDES LIBRARY, OFFICE USED BY PUBLIC, ETC.)	Crime—Property
2309 LARCENY—FROM YARDS (GROUNDS SURROUNDING A BUILDING)	Crime—Property
2310 LARCENY—FROM MAILS	Crime—Property
2313 LARCENY—OBSTRUCT CORRESPONDENCE (POSTAL VIOLATION)	Crime—Property
2399 LARCENY (OTHER)	Crime—Property
2404 VEHICLE THEFT UDAA	Crime—Property
2406 POSSESS/RECEIVE STOLEN VEHICLE	Crime—Property
2408 POSSESS STOLEN VEHICLE	Crime—Property

<b>Call Category</b>	<b>Class</b>
2411 MOTOR VEHICLE—UNAUTHORIZED USE	Crime—Property
2501 FORGERY OF CHECKS	Crime—Property
2503 COUNTERFEITING OF ANY OBJECT	Crime—Property
2505 PASS COUNTERFEITED—ANY OBJECT	Crime—Property
2589 FORGERY (OTHER)	Crime—Property
2599 COUNTERFEITING (OTHER)	Crime—Property
2602 FRAUD—SWINDLE	Crime—Property
2604 IMPERSONATION	Crime—Property
2605 FRAUD—ILLEGAL USE OF CREDIT CARD	Crime—Property
2606 NON-SUFFICIENT FUNDS CHECKS	Crime—Property
2609 IDENTITY THEFT	Crime—Property
2674 FRAUD (LARCENY) BY CONVERSION	Crime—Property
2676 NO-ACCOUNT CHECK	Crime—Property
2677 DEFRAUDING HOTELS, RESTAURANTS, INNKEEPER, ETC.	Crime—Property
2693 UTTERING AND PUBLISHING CHECK	Crime—Property
2699 FRAUD (OTHER)	Crime—Property
2701 EMBEZZLEMENT—BUSINESS PROPERTY	Crime—Property
2799 EMBEZZLEMENT (OTHER)	Crime—Property
2801 SALE OF STOLEN PROPERTY	Crime—Property
2803 STOLEN PROPERTY—RECEIVING	Crime—Property
2804 STOLEN PROPERTY—POSSESSING	Crime—Property
2805 STOLEN PROPERTY—CONCEALING	Crime—Property
2899 STOLEN PROPERTY (OTHER)	Crime—Property
2901 DAMAGE TO PROPERTY—BUSINESS PROPERTY—MDOP	Crime—Property
2902 DAMAGE TO PROPERTY—PRIVATE PROPERTY—MDOP	Crime—Property
2903 DAMAGE TO PROPERTY—PUBLIC PROPERTY—MDOP	Crime—Property

<b>Call Category</b>	<b>Class</b>
2905 DAMAGE TO PROPERTY—PRIVATE PROPERTY—MDOP WITH EXPLOSIVES	Crime—Property
2996 DAMAGE PROPERTY—MDOP—THROWING STONE, ETC., AT TRAIN OR MOTOR VEHICLE	Crime—Property
2998 DAMAGE PROPERTY—MDOP—DESTROY, INJURE PROPERTY OF POLICE/FIRE DEPARTMENTS	Crime—Property
2999 DAMAGE TO PROPERTY—MDOP (OTHER)	Crime—Property
3071 RETAIL FRAUD MISREPRESENTATION 1ST DEGREE	Crime—Property
3072 RETAIL FRAUD MISREPRESENTATION 2ND DEGREE	Crime—Property
3073 RETAIL FRAUD THEFT 1ST DEGREE	Crime—Property
3074 RETAIL FRAUD THEFT 2ND DEGREE	Crime—Property
3076 RETAIL FRAUD REFUND/EXCHANGE 2ND DEGREE	Crime—Property
3077 RETAIL FRAUD, MISREPRESENTATION 3RD DEGREE	Crime—Property
3078 RETAIL FRAUD, THEFT 3RD DEGREE	Crime—Property
3079 RETAIL FRAUD, REFUND/EXCHANGE 3RD DEGREE	Crime—Property
5202 CCW—CONCEALED WEAPONS—CARRYING CONCEALED	Crime—Property
5203 CONCEALED WEAPONS—CARRYING PROHIBITED	Crime—Property
5212 CONCEALED WEAPONS—POSSESSION OF WEAPON	Crime—Property
5299 WEAPONS OFFENSE (OTHER)	Crime—Property
3512 HEROIN—POSSESS	Crime—Society
3532 COCAINE—POSSESS	Crime—Society
3542 SYNTHETIC NARCOTIC—POSSESS	Crime—Society
3550 NARCOTIC EQUIPMENT—PARAPHERNALIA	Crime—Society
3560 MARIJUANA—SELL	Crime—Society
3561 MARIJUANA—SMUGGLE	Crime—Society
3562 MARIJUANA—POSSESS	Crime—Society

<b>Call Category</b>	<b>Class</b>
3563 MARIJUANA—PRODUCING	Crime—Society
3565 MARIJUANA—USE	Crime—Society
3592 CRACK—POSSESS	Crime—Society
3595 DRUGS, ILLEGAL USE OF	Crime—Society
3598 NARCOTIC DRUGS, FRAUDULENT PROCUREMENT OF	Crime—Society
4103 LIQUOR—TRANSPORT (OPEN CONTAINER, ETC.)	Crime—Society
41032 UNDERAGE 17-20 LIQUOR—OPEN/TRANSPORT	Crime—Society
4104 POSSESSION OF ALCOHOLIC LIQUOR IN A MOTOR VEHICLE	Crime—Society
4171 VIOLATION OF LIQUOR CONTROL LAWS	Crime—Society
4195 LIQUOR—MINOR IN POSSESSION IN M/V	Crime—Society
4196 LIQUOR—MINOR POSSESS/CONSUME/PURCHASE ATTEMPTS	Crime—Society
4199 LIQUOR VIOLATIONS (OTHER)	Crime—Society
41991 UNDERAGE 17-20 LIQUOR USE/POSSESS/CONSUME	Crime—Society
4299 DRUNKENNESS (ALL CRIMINAL)	Crime—Society
5503 DRUGS—(OTHER) PRESCRIPTION	Crime—Society
5591 INHALATION OF CHEMICAL AGENTS	Crime—Society
AIRPORT PATROL	Directed Patrol
APARTMENT PATROL	Directed Patrol
BIKE PATROL	Directed Patrol
CHURCH PATROL	Directed Patrol
CRIME HAZARD	Directed Patrol
EXTRA PATROL	Directed Patrol
HOTEL/MOTEL PATROL	Directed Patrol
INDUSTRIAL SUB PATROL	Directed Patrol
MOTOR MALL PATROL	Directed Patrol
OAKLAND MALL/PLAZA PATROL	Directed Patrol

<b>Call Category</b>	<b>Class</b>
OFFICE COMPLEX PATROL	Directed Patrol
PARK PATROL	Directed Patrol
PARKING VIOLATIONS	Directed Patrol
PLAZA MALL CHECK	Directed Patrol
SCHOOL PATROL	Directed Patrol
SCHOOL PROPERTY CHECK	Directed Patrol
SOMERSET COLLECTION PATROL	Directed Patrol
SPECIAL EVENT DETAIL	Directed Patrol
SPECIAL WATCH	Directed Patrol
5282 FIREWORKS—POSSESSION, SALE, USE, OR FURNISH	Disturbance/Other Ordinance
5311 DISORDERLY CONDUCT	Disturbance/Other Ordinance
5312 DISTURBING THE PEACE	Disturbance/Other Ordinance
5314 VAGRANCY—LOITERING	Disturbance/Other Ordinance
5372 TELEPHONE USED FOR OBSCENE CALLS	Disturbance/Other Ordinance
5393 DISORDERLY CONDUCT (OTHER)	Disturbance/Other Ordinance
5399 PUBLIC PEACE (OTHER)	Disturbance/Other Ordinance
5707 TRESPASS (OTHER)	Disturbance/Other Ordinance
6274 LITTERING ON PUBLIC OR PRIVATE PROPERTY	Disturbance/Other Ordinance
7356 SOLICITORS/PEDDLERS—NO PERMIT/LICENSE	Disturbance/Other Ordinance
7380 NUISANCES ORD.—NOISE/PROHIBITED HOURS/AREA	Disturbance/Other Ordinance
7385 NUISANCE ORD.—ILLEGAL DUMPING	Disturbance/Other Ordinance
7395 ORD—BRANDISHING IMITATION GUN	Disturbance/Other Ordinance
7399 ALL OTHER ORDINANCE VIOLATIONS	Disturbance/Other Ordinance
7401 TAMPER WITH MOTOR VEHICLE	Disturbance/Other Ordinance
7408 MAIL TAMPERING	Disturbance/Other Ordinance
7571 SOLICITATION	Disturbance/Other Ordinance
7771 CONSPIRACY	Disturbance/Other Ordinance

<b>Call Category</b>	<b>Class</b>
C3310 FAMILY TROUBLE	Disturbance/Other Ordinance
C3311 CUSTOMER TROUBLE	Disturbance/Other Ordinance
C3312 NEIGHBORHOOD TROUBLE	Disturbance/Other Ordinance
C3341 PEACE OFFICER DUTIES	Disturbance/Other Ordinance
L3509 PEACE OFFICER—TR	Disturbance/Other Ordinance
C3309 LIQUOR INSPECTION	Inspection
C3760 TRAFFIC COMPLAINT/COMMERCIAL VEHICLE INSPECTION	Inspection
L3511 VEHICLE INSPECTION DETAIL—TR	Inspection
7070 RUNAWAY	Juvenile
C2821 RECOVERED RUNAWAY JUVENILE	Juvenile
C2822 LOST/MISSING JUVENILE	Juvenile
C2825 JUVENILE—INCORRIGIBILITY	Juvenile
C2832 MISCELLANEOUS SCHOOL COMPLAINT	Juvenile
C2840 JUVENILE—MALICIOUS MISCHIEF	Juvenile
C2899 JUVENILE—ALL OTHER	Juvenile
9952 MISCELLANEOUS—PUBLIC RELATIONS ACTIVITIES	Miscellaneous
C3346 STORM DAMAGE	Miscellaneous
C3389 ARCHIVED REPORT UPDATES	Miscellaneous
C3399 MISCELLANEOUS ALL OTHER	Miscellaneous
C3488 SCUBA MISC ACTIVITY	Miscellaneous
L3508 MISCELLANEOUS DETAIL—TR	Miscellaneous
L3515 SEX OFFENDER REGISTRATION—TR	Miscellaneous
L3580 BANK DETAIL—TR	Miscellaneous
L3590 CANCELLED RUN—TR	Miscellaneous
ADMINISTRATION	Out of Service—Administrative
AT STATION	Out of Service—Administrative
COMMUNITY POLICING	Out of Service—Administrative

<b>Call Category</b>	<b>Class</b>
COURT	Out of Service–Administrative
DESK DUTY	Out of Service–Administrative
DETAIL	Out of Service–Administrative
FOLLOW-UP	Out of Service–Administrative
FUEL	Out of Service–Administrative
K-9 TRAINING	Out of Service–Administrative
LAB WORK	Out of Service–Administrative
OUT OF SERVICE	Out of Service–Administrative
OUT OF VEHICLE	Out of Service–Administrative
POLICE TRAINING	Out of Service–Administrative
PUBLIC RELATIONS	Out of Service–Administrative
REPORT WRITING	Out of Service–Administrative
ROLL CALL	Out of Service–Administrative
STATION DETAIL	Out of Service–Administrative
UNION BUSINESS	Out of Service–Administrative
VEHICLE INSPECTION	Out of Service–Administrative
VEHICLE MAINTENANCE	Out of Service–Administrative
BREAK	Out of Service–Personal
MEAL BREAK	Out of Service–Personal
C3245 SICK CARE FOR MEDICAL	Request for Ambulance
C3205 SUDDEN DEATH—NATURAL	Sick/Injury
C3207 SUDDEN DEATH—ACCIDENT	Sick/Injury
C3215 ADULT SUICIDE	Sick/Injury
C3217 ATTEMPT SUICIDE ADULT	Sick/Injury
C3221 ATTEMPT SUICIDE—JUVENILE	Sick/Injury
C3225 DRUG OVERDOSE	Sick/Injury
C3235 INJURED PERSON	Sick/Injury
C3250 MENTAL	Sick/Injury

<b>Call Category</b>	<b>Class</b>
C3255 OCCUPATIONAL INJURIES	Sick/Injury
C3262 HOSPICE DEATH	Sick/Injury
L3504 1ST RESPONDER NO OFFICER—TR	Sick/Injury
C3299 WELFARE CHECK	Suspicious Person/Vehicle/Incident
C3324 SUSPICIOUS CIRCUMSTANCES	Suspicious Person/Vehicle/Incident
C3326 SUSPICIOUS VEHICLES	Suspicious Person/Vehicle/Incident
C3328 SUSPICIOUS PERSONS	Suspicious Person/Vehicle/Incident
C3329 INTELLIGENCE INFORMATION	Suspicious Person/Vehicle/Incident
L3503 MISCELLANEOUS FALSE 911 CALL—TR	Suspicious Person/Vehicle/Incident
L3513 WELFARE CHECK—TR	Suspicious Person/Vehicle/Incident
C3478 MISCELLANEOUS ORV. COMPLAINTS	Traffic Complaint
C3702 TRAFFIC COMPLAINT/ROAD HAZARD	Traffic Complaint
C3704 TRAFFIC COMPLAINT/ABANDONED AUTO	Traffic Complaint
C3706 TRAFFIC COMPLAINT/VEHICLE IMPOUND	Traffic Complaint
C3710 TRAFFIC COMPLAINT/VEHICLE OFF ROADWAY—CID	Traffic Complaint
C3728 TRAFFIC COMPLAINT/PARKING COMPLAINT	Traffic Complaint
C3730 TRAFFIC COMPLAINT/TRAFFIC MISCELLANEOUS A COMPLAINT	Traffic Complaint
C3732 TRAFFIC COMPLAINT/TRAFFIC MISCELLANEOUS B COMPLAINT	Traffic Complaint
C3740 TRAFFIC OFFENSE/PROPERTY DAMAGE ACCIDENT/NO UD10	Traffic Complaint
C3748 TRAFFIC COMPLAINT/POLICE TOW	Traffic Complaint
C3799 MISCELLANEOUS TRAFFIC COMPLAINT	Traffic Complaint
L3534 TSU SELECTIVE ENFORCEMENT PROJECT—TR	Traffic Complaint
L3535 RADAR TRAILER—TR	Traffic Complaint
4877 FLEEING OR ELUDING POLICE (PENAL CODE)	Traffic Enforcement
8029 OPERATING WHILE IN THE PRESENCE OF DRUGS (OWPD)	Traffic Enforcement
8031 OUID OPERATING UNDER THE INFLUENCE OF	Traffic Enforcement

<b>Call Category</b>	<b>Class</b>
DRUGS	
8033 ABILITY IMPAIRED BY DRUGS, VOLUNTARY	Traffic Enforcement
8041 OPERATING UNDER THE INFLUENCE OF ALCOHOL/LIQUOR OWI	Traffic Enforcement
80412 OPERATING UNDER THE INFLUENCE OF ALCOHOL/LIQUOR OWI 2ND OFFENSE	Traffic Enforcement
80413 OPERATING UNDER THE INFLUENCE OF ALCOHOL/LIQUOR OWI 3RD OFFENSE	Traffic Enforcement
8050 BAC NOT LESS THAN .02% OR MORE THAN .07% PERSON UNDER 21 YOA—ZERO TOL	Traffic Enforcement
C2921 FELONIOUS DRIVING	Traffic Enforcement
C2925 RECKLESS DRIVING	Traffic Enforcement
C2926 TRAFFIC FLEE/ELUDING	Traffic Enforcement
C2928 FAIL TO STOP FOR BUS/CROSSING GUARD	Traffic Enforcement
C2929 DRAG RACING	Traffic Enforcement
C2931 DWLS OPS LICENSE SUSPENDED/REVOKED	Traffic Enforcement
C2932 OPS VIOLATE RESTRICTED LICENSE	Traffic Enforcement
C2935 DWLS 2ND OPS LICENSE SUSPENDED/REVOKED	Traffic Enforcement
C2936 OPS—NEVER ACQUIRED—NOLEA	Traffic Enforcement
C2937 NO OPS ON PERSON—NOP—NOLOP	Traffic Enforcement
C2999 ALL OTHER TRAFFIC OFFENSES	Traffic Enforcement
C4015 RECKLESS DRIVING CITATION	Traffic Enforcement
C4061 DISOBEY POLICE OFFICERS SIGNAL	Traffic Enforcement
C4306 DROVE W/O PROPER ENDORSEMENT	Traffic Enforcement
C4308 VIOLATION OF RESTRICTED OPS	Traffic Enforcement
C4312 NO-OPS ON PERSON CITATION	Traffic Enforcement
L3570 TRAFFIC STOP—TR	Traffic Enforcement
RADAR MOVING	Traffic Enforcement
RADAR STATIONARY	Traffic Enforcement
SELECTIVE ENFORCEMENT	Traffic Enforcement

<b>Call Category</b>	<b>Class</b>
ARREST ASSIST	Warrant Arrest/Prisoner Transport
C3010 FELONY ARREST WARRANT (ORIGINATING AGENCY)	Warrant Arrest/Prisoner Transport
C3020 MISDEMEANOR ARREST WARRANT (ORIGINATING AGENCY)	Warrant Arrest/Prisoner Transport
C3030 TRAFFIC ARREST WARRANT	Warrant Arrest/Prisoner Transport
C3040 FELONY ARREST WARRANT—OTHER JURISDICTION	Warrant Arrest/Prisoner Transport
C3045 EXTRADITION ARREST WARRANT	Warrant Arrest/Prisoner Transport
C3050 MISDEMEANOR ARREST WARRANT—OTHER JURISDICTION	Warrant Arrest/Prisoner Transport
C3060 TRAFFIC ARREST WARRANT—OTHER JURISDICTION	Warrant Arrest/Prisoner Transport
C3070 CIVIL/FRIEND OF COURT ARREST WARRANT	Warrant Arrest/Prisoner Transport
C3339 ARREST—OTHER AGENCY—NO WARRANT	Warrant Arrest/Prisoner Transport
PRISONER BOOKING	Warrant Arrest/Prisoner Transport

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