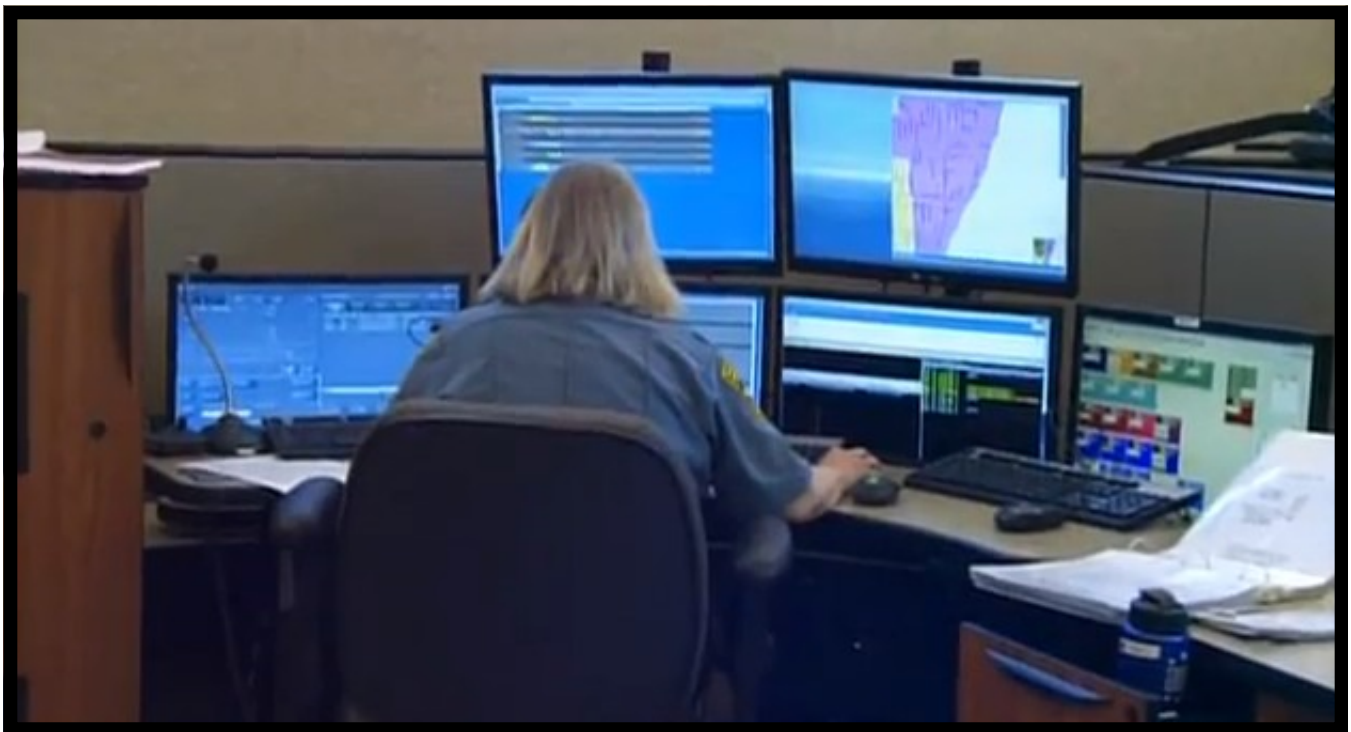


MODELING A CONSOLIDATED DISPATCH CENTER FOR MILWAUKEE COUNTY'S SOUTH SHORE



ABOUT THE PUBLIC POLICY FORUM

Milwaukee-based Public Policy Forum – which was established in 1913 as a local government watchdog – is a nonpartisan, nonprofit organization dedicated to enhancing the effectiveness of government and the development of southeastern Wisconsin through objective research of regional public policy issues.

PREFACE AND ACKNOWLEDGMENTS

This report was undertaken at the request of municipal leaders in Cudahy, South Milwaukee and St. Francis to explore possibilities for consolidating public safety dispatch services. We thank them for their financial support of this project, and we hope that elected officials, police and fire department administrators, and civic leaders from the three communities will use the report's findings to inform discussions during upcoming policy debates and budget deliberations.

Report authors also would like to thank the police chiefs, fire chiefs, city administrators/finance directors, dispatch personnel and other municipal staff who participated in our deliberations and assisted us in our efforts to gather budget and operational data on the three dispatch operations. We also wish to thank the Greater Milwaukee Committee for its partnership in facilitating the ICC Shared Services and Cooperation Work Group and for its financial support of this report.

MODELING A CONSOLIDATED DISPATCH CENTER FOR MILWAUKEE COUNTY'S SOUTH SHORE

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EXECUTIVE SUMMARY

Earlier this year, following informal discussions about possibilities for sharing or consolidating public safety services, the mayors of Milwaukee County's South Shore communities (Cudahy, South Milwaukee and St. Francis) asked the Public Policy Forum to conduct a pair of independent analyses on consolidation options and their associated impacts. This report analyzes the potential creation of an independent consolidated dispatch center to serve the three communities. A follow-up report exploring possibilities for shared or consolidated fire and emergency medical services will be released early in 2013.

Our study of a consolidated dispatch center focuses on each city's current dispatch operations, including an extensive analysis of the duties currently performed by dispatchers and the financing of dispatch operations. We find that dispatch personnel at the three police departments do far more than traditional dispatch activities, with additional duties ranging from parking administration, to background checks for liquor license review, to collecting bail on warrants. Consequently, our consideration of dispatch consolidation includes models that take into account the need for each government to cover those non-dispatch tasks, as well as two different potential staffing configurations for a new consolidated dispatch center.

A key factor in the analysis is use of a time study methodology based on dispatch activity in the three municipalities to estimate the staffing levels required for a South Shore dispatch center. We use the information gleaned from that methodology to estimate the cost of the different staffing frameworks and compare those costs to existing dispatch operations.

The following are key findings from our analysis of a potential independent consolidated dispatch center to serve Milwaukee County's three South Shore communities:

- **By consolidating their dispatch operations into an independent consolidated dispatch center, the three cities could reduce their current combined dispatch staff, thus decreasing annual operating expenditures by approximately \$132,000 to \$256,000.** The savings estimates include the cost of new clerical staff positions at each city government to handle administrative tasks currently handled by dispatchers, as well as a dispatch manager for the consolidated center. The estimates do not take into account, however, any expenditures that may be needed to lease, buy or remodel space for the new dispatch center.
- **By consolidating their dispatch operations into an independent consolidated dispatch center, the three cities could eliminate the need to collectively replace two or three dispatch consoles, producing equipment savings within the next five years of approximately \$400,000 to \$600,000.** The ability to eliminate redundant equipment and reduce maintenance costs has been cited in other jurisdictions as one of the key advantages of dispatch consolidation. In the South Shore, a new consolidated dispatch center logically would use dispatch consoles recently purchased by Cudahy, thus allowing South Milwaukee and St. Francis to avoid planned console purchases. We assume the equipment savings would be distributed equitably across the three cities.



- **If one of the three cities were to perform dispatch services under contract with the other two, or if the three cities contracted with a neighboring jurisdiction for dispatch services, then substantial additional savings could be generated.** Per the instruction of the three mayors, this analysis focuses primarily on potential creation of an independent consolidated dispatch center to serve the three municipalities. It is likely, however, that *contracting* for dispatch services could be even more cost efficient because the three cities would not have to lease or purchase space, hire a dispatch center manager, contract for back office support, and incur other costs associated with creation of an independent organization.
- **Weighing potential cost savings against the loss of local control and the potential loss of 24-hour staffing at each city's police headquarters is a difficult endeavor.** At first glance, the potential operating and equipment savings estimated in our modeling appear worthy of pursuit. A consolidated dispatch operation also could produce operational improvements, including the ability to better coordinate responses to major incidents. Those potential advantages, however, must be weighed against the current benefits for each city of solely controlling its dispatch operations and maintaining those operations at its own police headquarters. When potential savings are broken down across individual municipalities, the issue of cost versus benefit becomes less clear, as the three cities may experience differing levels of savings depending on the nature of the cost allocation formula.
- **If the three cities do not decide to pursue consolidation of their dispatch operations, then they may wish to at least review whether the administrative tasks assigned to dispatchers might be more appropriately assigned to clerical staff.** A major finding in this study is that the sporadic nature of dispatch activities – plus the need to staff dispatch operations at a level that can handle major emergencies – produces considerable additional workload capacity for dispatchers that has been filled with non-dispatch administrative tasks. A review may be in order to determine the cost effectiveness of this approach.

The report concludes that each city must consider whether to pursue an independent consolidated dispatch center – or to jointly contract for this service with a different jurisdiction – within the context of its own short-term and long-term financial circumstances and public safety needs. City leaders also should consider whether the possible pursuit of other public safety consolidation may further dictate the logic of consolidating dispatch services. The Forum's analysis of possibilities for consolidating fire and EMS services among the three municipalities will be completed within the next six months and will provide further insight into that question.



BACKGROUND

For the past 16 months, in partnership with the Greater Milwaukee Committee (GMC), the Public Policy Forum has facilitated a work group consisting of top administrators from Milwaukee County's 19 municipalities that has been discussing possibilities for shared services and functional consolidation. The group, which was formed by the Intergovernmental Coordinating Council (ICC), has discussed and collected data on several potential areas considered ripe for shared services, including property assessment, property tax collection, public works and joint health care purchasing.

Public safety services also have received considerable discussion by the ICC work group in light of the fact that such services typically comprise more than two-thirds of municipal budgets. In addition, Milwaukee County already is home to several prominent examples of public safety shared services and consolidation, including the Milwaukee County-administered Emergency Medical Services (EMS) program, the North Shore Fire Department, and a new North Shore consolidated dispatch operation.

In August 2011, the Forum and GMC organized a special meeting for leaders of the eight southern Milwaukee County communities to discuss the possible initiation of a formal study process regarding shared or consolidated fire services. It was decided that fire service consolidation/sharing discussions among Cudahy, St. Francis and South Milwaukee already had progressed to the point that those discussions should continue on a separate and largely independent track. It also was decided that there would be merit in having the Forum launch an analysis of possibilities for coordinating, sharing or consolidating fire and EMS among the remaining five municipalities. That analysis was released in late May.

Earlier this year, the mayors of Cudahy, St. Francis and South Milwaukee – feeling that their discussions had progressed to the point that detailed, independent analysis was required to move forward – approached the Forum to conduct two separate analyses of possible shared or consolidated public safety services in the three communities. The mayors asked that public safety dispatch services be considered first, with fire services to follow after release of the dispatch study. Each of the municipalities adopted resolutions indicating their support for the studies and their willingness to make a small financial contribution to them. The dispatch study was formally launched in February 2012.

The study was conducted by the Forum with the participation and oversight of the city administrator or finance director from each of the cities, as well as active participation from their police and fire chiefs and dispatch personnel. Multiple meetings were held to observe dispatch operations, discuss and refine data collection, review fiscal and staffing models and assumptions, and generate feedback on report findings.

It is important to note that per the request of the three mayors, this analysis focuses primarily on the option of creating an independent public safety dispatch center to serve the three cities jointly. Options in which one of the cities would provide dispatch services to all three under a contractual arrangement, or in which the three cities would contract for dispatch services with a different jurisdiction, are discussed only briefly.



GENERAL DEMOGRAPHIC OVERVIEW

The cities of Cudahy, South Milwaukee and St. Francis are located south of the City of Milwaukee along the Lake Michigan shoreline. The three cities together comprise 12.12 square miles, accounting for 5% of Milwaukee County's land area. According to population estimates by the Wisconsin Department of Administration, the south shore cities had a total population of 48,838 in 2011, which was 5.1% of the county total.

In South Milwaukee and Cudahy, population has declined slightly since 2000. St. Francis, on the other hand, has seen an increase in population of 786 residents, or 8.3%. In Milwaukee County as a whole, population has grown by 1.3% over the same period.

Table 1 breaks down general demographic and geographic information for the South Shore cities. Information on residents age 65 and older is included because of its relevance to demand for emergency medical services.

Table 1: General Geographic and Demographic Information

	Cudahy	South Milwaukee	St. Francis
Area (sq.miles)	4.77	4.80	2.55
Population (2011)	18,253	21,137	9,448
Population Change, 2000 - 2011	-176	-119	786
% of Residents 65 or older, 2010	15.7%	15.6%	17.5%
Median Household Income, 2010	\$47,500	\$54,410	\$46,075
% Persons Below Poverty Level 2006-10	13.5%	7.1%	10.8%

Sources: 2010 US Census, Wisconsin Department of Administration

Table 2 provides information on the housing stock of each city, which is an important characteristic when considering both police and fire protection.¹ St. Francis has a higher proportion of multi-family housing, and a correspondingly lower homeownership rate.

Table 2: Housing Characteristics

	Cudahy	South Milwaukee	St. Francis
Housing Units	8,662	9,722	4,828
% of Housing Units in Multi-Unit Structures	44.7%	37.8%	51.1%
Homeownership Rate	61.0%	65.6%	54.9%
Median Housing Value (Owner Occupied)	\$159,600	\$170,700	\$160,700

Source: 2010 US Census

¹ Multi-unit structures tend to generate a larger number of police calls than single-family homes.



Given the importance of property taxes as a means of funding local government services, the property wealth of the communities and their property tax capacity are important factors. **Table 3** shows data on total and commercial assessed value for the three cities and compares their 2011 gross tax levies and tax rates.

Table 3: Property Values and Taxes, 2011

	Cudahy	South Milwaukee	St. Francis
Municipal Assessed Value (in 1,000s)	1,225,012	1,117,925	639,395
Commercial Assessed Value (in 1,000s)	294,812	193,541	161,328
Per Capita Assessed Value	67,113	52,889	67,675
Commercial AV as a % of Total	24.1%	17.3%	25.2%
% Change in Total AV, 2008 – 2011	-2.7%	-15.8%	21.0%
Total property tax levy (2011)	33,084,093	34,522,146	17,536,921
Effective full value tax rate (2011)	2.5%	2.4%	2.5%

Source: Wisconsin Department of Revenue

Table 3 shows that South Milwaukee has a comparatively lower proportion of commercial assessed value than the other two cities. All three cities have the same or similar effective tax rates.

While there are some demographic differences between the three cities, in general they are very similar. South Milwaukee and Cudahy, in particular, are alike in terms of size, although income and housing values in South Milwaukee are slightly higher than in Cudahy. St. Francis has experienced more growth in housing units and population than the other two cities, but shows many of the same characteristics as Cudahy and South Milwaukee.



POLICE AND FIRE SERVICE CHARACTERISTICS

In order to assess the potential for consolidated dispatch activities among the three cities and how such an arrangement might be structured and funded, it is important to have a sense of their respective police and fire staffing and activity levels. In this section, we briefly summarize those characteristics.

Police Services

Each of the three police departments provides a full range of law enforcement services. In addition, the police departments manage the dispatch centers for each city. All three cities also have jail facilities for holding prisoners before transfer to Milwaukee County's Central Correctional Facility.

Table 4 presents crime rate data for each city for 2009 and 2010. Crimes are categorized as property or violent, and are calculated as the number of incidents per 100,000 residents.

Table 4: Crime Rates, 2009 and 2010

	2009	2010
Cudahy		
Property	35.51	27.50
Violent	3.58	2.48
South Milwaukee		
Property	23.47	27.93
Violent	1.27	0.70
St. Francis		
Property	27.81	28.83
Violent	1.42	0.91

Source: Wisconsin Office of Justice Assistance

This table shows that while the level of violent crime declined between 2009 and 2010 in all three cities, the rate of violent crime in Cudahy was substantially higher than in St. Francis or South Milwaukee. Rates of property crimes in 2010 were similar across the three communities.

Table 5 summarizes arrests by type in 2010 as reported by the three cities to the Wisconsin Department of Justice, which provides an alternative view of police activity. Arrest data relate to the incidence of crime in each city and also can reflect the priorities or initiatives of each police department.



Table 5: Number of arrests by type, 2010

	Cudahy		South Milwaukee		St. Francis	
	Number	Percent	Number	Percent	Number	Percent
Violent	97	11%	69	8%	9	3%
Property	150	17%	99	12%	138	40%
Drugs	64	7%	45	5%	18	5%
Society	270	31%	459	56%	89	26%
Other	282	33%	155	19%	88	26%
Total	863	100%	827	100%	342	100%

Source: Wisconsin Office of Justice Assistance

Note: Society arrests include weapons, prostitution, sex offenses, gambling violations, DWI, liquor laws, disorderly conduct, vagrancy, curfew and loitering and runaways. Other arrests include negligent manslaughter, other assaults, family offenses and all other (except traffic).

The arrest data reinforce that violent crime was higher in Cudahy than in the other two cities, while arrests for property crimes accounted for a much higher percentage of total arrests in St. Francis. Arrest data for South Milwaukee suggest a greater concentration of society crimes, primarily disorderly conduct. This may stem in part from the location of Grant Park in South Milwaukee, which has high concentrations of people and activity, especially in summer months.

The number of citations issued by each police department, shown in **Table 6**, is another indicator of workload and activity. Traffic citations include speeding, operating a vehicle while intoxicated, non-registration or operation of a non-registered vehicle, and other violations of traffic laws. Non-traffic citations include disorderly conduct, battery, theft, possession of drugs or drug paraphernalia, criminal trespass, truancy and other violations. The citation data also suggest a higher level of criminal activity in Cudahy in comparison with South Milwaukee and St. Francis.

Table 6: Traffic and Non-Traffic Citations, 2010²

	Cudahy	South Milwaukee	St. Francis
Traffic Citations	2,479	1,846	2,119
Non-Traffic Citations	2,542	1,154	493

Table 7 compares sworn and civilian police staffing in each of the three cities, which ranges from a total staffing level of 1.8 police department personnel per 1,000 residents in South Milwaukee, to 2.75 per 1,000 residents in St. Francis. As a comparison, the ratio of total police employees per 1,000 residents for all smaller cities in Milwaukee County (under 25,000 population) is 2.63.

² When no source is listed for a table in this report, it means either that the information contained in the table was obtained directly from the three cities, or that the table contains primary data created by Public Policy Forum observations.



Table 7: Police Department Staffing, 2011

	Cudahy	South Milwaukee	St. Francis
Police Staff			
Sworn	31	32	21
Civilian	11	6	5
Total	42	38	26
Per 1,000 residents			
Sworn	1.70	1.51	2.22
Civilian	0.60	0.28	0.53
Total	2.30	1.80	2.75

Police Mutual Aid

Police departments in Wisconsin rely on one another for back-up assistance when needed, though police use of mutual aid is not nearly as common as it is for fire departments. Mutual aid requests are tiered; as an incident grows, the level of mutual aid rises to meet the need.

When a police commander initiates a mutual aid call, the initial request is made to neighboring cities. If further assistance is needed, the Suburban Mutual Aid Response Team (SMART) comes into play. All three of the police departments are members of SMART Region 107, which governs mutual aid in unique circumstances and severe emergencies, and which includes both Milwaukee and Waukesha County law enforcement agencies.

According to the SMART bylaws, some of the types of incidents that would trigger a SMART response are severe storms, floods, hazardous material incidents, transportation accidents, large fires, public disorders, major crimes, barricaded subjects, hostage situations, searches, traffic control, and terrorist activities. SMART is primarily dispatched from the City of West Allis.

In 2010, South Milwaukee initiated a call for mutual aid through SMART when a disabled adult was missing. The Patrick Cudahy fire in 2009 also triggered a request through SMART. The total number of SMART activations in the region is generally fewer than five or six per year.

Another form of mutual aid for police departments is Wisconsin Emergency Police Services (EPS). Under the EPS program, the state is divided into seven mutual aid areas. In the event of a major law enforcement emergency, the area director (who is elected by fellow law enforcement officials in the area) can work with the Wisconsin Division of Emergency Management to set up a mutual aid response with local, state and federal law enforcement agencies.

Fire Services

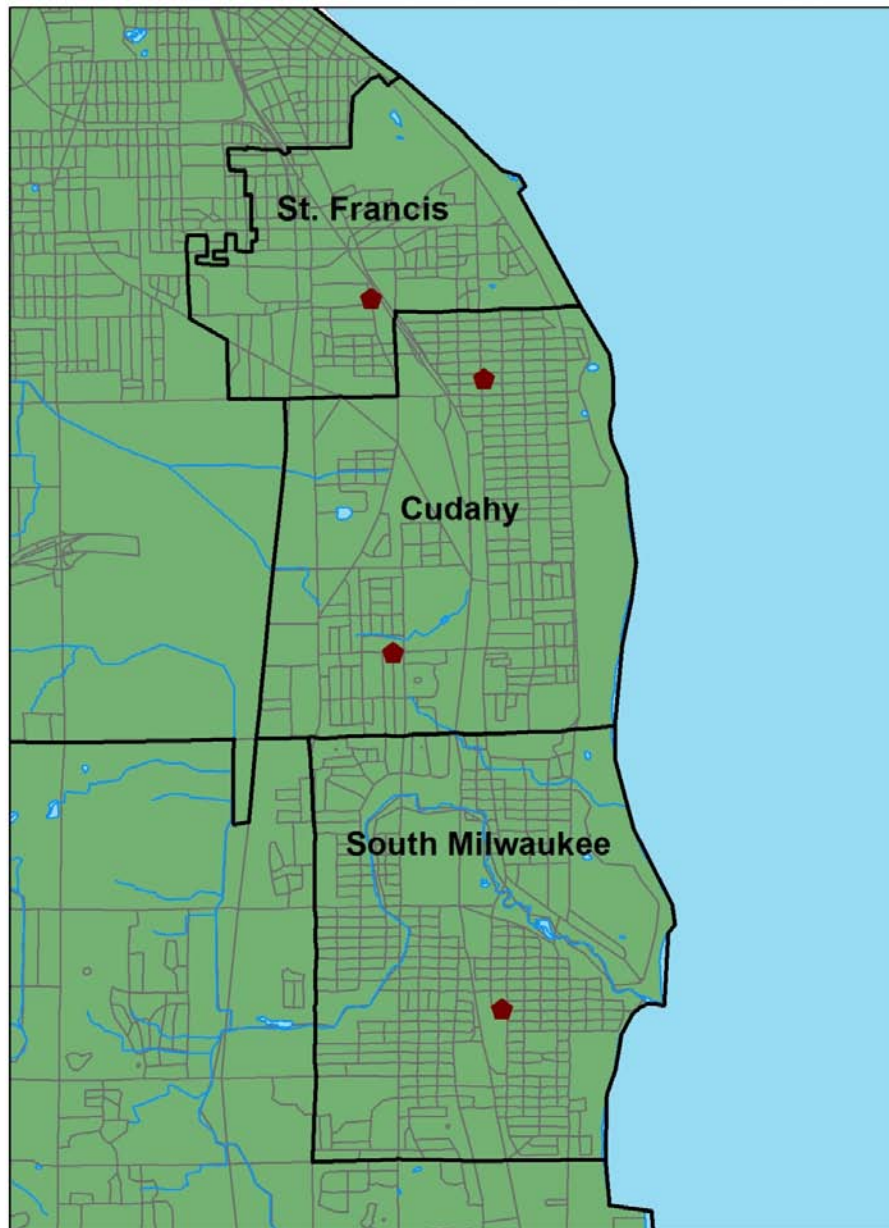
Cudahy, South Milwaukee and St. Francis are served by independent fire departments that provide both fire and emergency medical response. In addition, all three fire departments engage in water rescue, extrication, fire safety inspections and fire investigations, among other duties. Cudahy has two fire stations, while South Milwaukee and St. Francis each have a single station. **Table 8** gives an overview of staffing for each fire department, while **Figure 1** shows the locations of the four fire houses. All three departments have paid full-time firefighters.



Table 8: Fire Department Total Staffing

	Cudahy	South Milwaukee	St. Francis
Chief	1	1	1
Captain/Lt	6	6	6
Firefighter/EMT	17	6	9
Firefighter/paramedic	0	12	0
Support	0	1	0
Total FTE	24	26	16
Number of Stations	2	1	1

Figure 1: Fire House Locations



With regard to emergency medical services (EMS), all three departments provide Basic Life Support (BLS) response using Firefighter/EMTs. South Milwaukee also has 12 firefighter/paramedics who staff two Advanced Life Support ambulances (ALS). Cudahy receives its ALS services from South Milwaukee as part of the Milwaukee County EMS system, while St. Francis receives its ALS services from the City of Milwaukee.³

Each of the three departments is equipped with multiple fire suppression vehicles, ambulances and support vehicles. **Table 9** lists fire apparatus owned by each city.

Table 9: Fire Department Apparatus List

	Cudahy	South Milwaukee	St. Francis
Fire vehicles	3	3	2
Ladder trucks	1	1	1
Ambulances	3	3	2
Utility Trucks/Command Vehicles	4	3	2
Boats	1	2	0
Other	1	2	0
Total	13	14	7

Table 10 demonstrates activity levels by showing the number of fire and EMS responses for each of the three departments in 2010. As is typical for most fire departments, EMS responses represent the largest single category of activity, at 80-85% of calls. Because South Milwaukee Fire provides both ALS and BLS services, its total number of EMS calls is higher.

Table 10: Fire Department Response (includes mutual aid), 2010

	Cudahy	South Milwaukee	St. Francis
Building Fires	36	32	21
Other Fires	46	31	13
Total Fires	82	63	34
Other Service Calls	196	439	253
Total Fire Response	278	502	287
BLS	1,817	827	1,182
ALS	0	1,628	0
Total EMS	1,817	2,455	1,182

In terms of fire response, the majority of activity falls into the category of “Other Service calls,” which includes hazardous conditions, false alarms, odor investigation, and various other types of service calls. There are some differences in how each department tracks and records that category of calls, so further investigation would be required to make valid comparisons across jurisdictions.

³ Advanced life support services refer to a level of pre-hospital emergency care that can include invasive life-saving procedures. These services differ from basic life support services in that they may involve the use of drugs or invasive skills, and require provision by individuals with an advanced form of paramedic training.

While the activity levels shown above provide perspective on the overall demand for fire services, response times and ISO ratings describe how well each department is meeting that demand. **Table 11** shows each department's average response time, which in this case is measured as the time that elapses from the notification to dispatch that a unit is leaving the station until the time that the unit arrives on the scene of the incident. Note that the response times in **Table 11** do not include the dispatcher's time to handle the call or the time it takes for firefighters to leave the station after receiving the initial call (also known as "turnout time).

Table 11: Response times and ISO Ratings

	Response Time	ISO Rating
Cudahy	2:08 minutes	4
South Milwaukee	2:39 minutes	4
St. Francis	2:38 minutes	4

The ISO is an organization that provides information about property/casualty insurance risk to the insurance industry. The rating developed by the ISO assesses the ability of local fire departments to provide fire protection services.

The ISO rates departments on a scale of one to 10, with a rating of one indicating superior service capacity, and a rating of 10 indicating failure to meet ISO's minimum criteria. According to ISO's web site, 10% of the overall grading is based on how well the department receives fire alarms and dispatches its fire-fighting resources; 50% is based on the number of engine companies and the amount of water a community needs to fight a fire; and 40% is based on the community's water supply. All three South Shore fire departments are rated at level 4 by the ISO.⁴

Fire Mutual Aid

While the majority of calls within each city for both EMS and fires are handled by each city's fire department, all of the fire departments in southern Milwaukee County have developed a widely utilized system of mutual aid. Mutual aid is critical for municipal fire departments because fires can grow quickly and cause significant damage and injury. In addition, one or two major incidents occurring at the same time can easily overwhelm one city's fire department.

When an Incident Commander determines that there is a need for mutual aid, the role of the dispatch center is crucial. The Incident Commander relies on the dispatcher to communicate the call for mutual aid, including the location of the staging area, the commander, and the type of response needed.

As with police mutual aid, the mutual aid system for fire departments is a tiered system, with the level of mutual aid rising to meet the need. The following describe levels of mutual aid:

- Auto Aid: Cudahy and St. Francis have identified structures with a higher risk to life or property. If an incident is reported at any of these properties either through a 911 call or an

⁴ In Wisconsin, no fire departments have achieved an ISO rating of one, and only 20% received a rating of four or lower per the latest data we could identify from ISO.



alarm, both fire departments automatically respond. In 2010, according to data provided by the St. Francis Fire Department, Cudahy called for auto-aid four times and St. Francis called for auto-aid 16 times.⁵

- **Working Still:** When a fire exceeds the capacity of a single fire department, the incident commander calls a Working Still. At that point, five fire departments are dispatched to the scene: Cudahy, St. Francis, South Milwaukee, Oak Creek and the fire department at the 128th Air Refueling Wing at General Mitchell International Airport, a division of the Air National Guard. **Table 12** shows the number of Working Stills that were called in 2010.

Table 12: Working Stills Called, 2010

	Working Stills
Cudahy	5
South Milwaukee	4
St. Francis	3
Other Agencies	14
Total Working Stills	26

- **The Mutual Aid Box Alarm System (MABAS):** An additional level of mutual aid is coordinated through MABAS, a network of fire departments in 25 counties that provide mutual aid to each other when requested.⁶ A request for mutual aid through MABAS is dispatched through the City of Wauwatosa and is initially dispatched to all fire departments within Milwaukee County, other than the City of Milwaukee. **Table 13** shows the number of times the fire departments of each city responded to a MABAS request for mutual aid in 2010.

Table 13: MABAS Responses, 2010

	MABAS Responses	Location of MABAS Response
Cudahy	1	Eagle
South Milwaukee	5	Milwaukee, Eagle, Union Grove, North Shore, Franklin
St. Francis	2	Eagle, Wauwatosa

In a large-scale emergency (such as the Patrick Cudahy fire in 2009), the mutual aid system extends even further to secure assistance from fire departments throughout the state and even neighboring states.

⁵ Cudahy's reporting on auto aid in 2010 differs slightly from the numbers reported by St. Francis. Auto-aid was implemented in 2010 and the difference is probably due to the ways incidents were classified and/or reported.

⁶ MABAS was initiated in Wisconsin in the 1980s (and came to Milwaukee County in the 1990s) as a means of ensuring back-up for individual fire departments in situations where their resources are stretched because of a severe or long-lasting emergency.



DISPATCH CENTER CHARACTERISTICS

Each city's dispatch center is crucial to the effectiveness of the police and fire emergency operations described in the preceding section. Actual emergencies, however, take up a very small portion of a dispatcher's day. Much more of a dispatcher's shift is spent supporting other police department functions, such as tracking police officers and performing administrative tasks relating to parking citations. Over time, dispatch staff in some of the cities also have been assigned administrative tasks relating to other city departments and the municipal courts.

This section provides a general overview of the dispatcher function and explores how a dispatcher's job varies between the three cities. It also describes available data sources that are used to quantify dispatcher workload and provides a brief description of dispatcher staffing, equipment, and budget expenditures in the three cities. Collecting and synthesizing this information makes it possible to consider what a consolidated dispatch operation serving all three cities might look like.

Overview of Dispatch Functions

Emergency Police Dispatch

The most important duty of dispatchers is to answer 911 and other emergency calls, determine the reason for the call, identify the location of the incident, and dispatch the appropriate police or fire response. Dispatchers also fulfill a critical function – and spend a much greater proportion of their time – monitoring the location and status of police units in the field. By carefully tracking all of the units on patrol, dispatchers know which squads are available to respond to a call and can assign calls in turn. Tracking of police units also is vital to officer safety because police officers generally are alone in the field. In fact, one police chief described dispatch as a “lifeline” to police officers in the field.

With the availability of sophisticated databases, accessed through the Transaction Information for Management Enforcement (TIME) system, dispatchers also play an important support role to officers on patrol. Databases that are accessed through TIME include the National Crime Information Center, the State Crime Information Bureau, the Wisconsin Departments of Transportation, Natural Resources and Corrections, and others. Dispatchers must be certified to access the TIME system. Although officers also can access TIME through laptop computers in their patrol cars, it was observed that many officers rely on dispatchers to run vehicle license plates and check for criminal background, warrants, and other information on persons of interest.

Dispatchers in all three cities use the same Computer Aided Dispatch (CAD) system to track incidents and resources and document activity. The CAD screen lists all active or available police and fire units, and each call received by the dispatch center automatically generates a CAD entry. Officer response, or radio transmissions between officers and dispatch, also is entered into CAD.



Fire/EMS Dispatch

In all three cities, dispatchers broadcast 911 calls relating to fire and emergency medical response over loudspeakers in the appropriate firehouse. In many cases, when fire department personnel are available, a firefighter takes over communication functions. When the apparatus leave the firehouse, the fire department notifies dispatch. If dispatch does not get notification that the fire department has responded within three to four minutes, dispatchers must “ring down” the firehouse again to ensure that units are responding. Dispatchers make a CAD entry for all fire/EMS incidents.⁷

Dispatchers have some additional, specialized responsibilities with regard to fire department dispatch. For example, dispatchers monitor and communicate response times, including dispatch time, arrival time and clear-out time; they monitor progress via radio channels once fire resources are on scene; and they may be called upon to issue an “all-call” to off-duty firefighters to backfill the firehouse at times of high activity.

If a fire escalates, dispatchers also are responsible for securing mutual aid. Dispatchers can initiate a Working Still or Auto-Aid response with a single control on the CAD screen, eliminating the need to make separate contacts with mutual aid responders. In calling for mutual aid, dispatchers must communicate the staging location and incident commander, and then relay back to the incident commander what resources are on their way. In addition, in a large fire or vehicle accident, dispatch is responsible for contacting other responding agencies, such as utilities or the public works department.

It is important to recognize that in the case of a large fire or similar incident, dispatch is responsible for mobilizing police, fire and other responders, monitoring two or more radio channels at once, and answering multiple 911 calls. That level of activity is challenging for a single dispatcher to handle effectively.

Other Police Support Functions

Dispatchers provide many other support functions in the police departments of each South Shore city. Those functions can range from answering the general phone line and staffing the front counter; to assisting in monitoring holding cells and acting as matrons for female prisoners; to processing new bartender applications and annual reviews of liquor licenses. In fact, in 2010, South Milwaukee dispatchers processed 275 bartender applications and liquor licenses, which involved running background checks on all individuals listed on the liquor license, and which can take 20 minutes per application to complete. **Figure 2** shows the wide range of police support functions performed by dispatchers in each city.

⁷ In South Milwaukee, there is also a fire emergency line that rings in the firehouse but only at dispatch if the firehouse is empty.



Figure 2: Police Support Functions Performed by Dispatchers

	Cudahy	South Milwaukee	St. Francis
Answer general police information line	●	●	●
Enter, confirm and cancel warrants in TIME	●	●	
TIME entry validation	●	●	
Support medication disposal program	●	●	●
Monitor teletype	●	●	●
Staff front counter	●	●	●
Matron for female prisoners	●	●	●
Monitor cameras on holding cells	●	●	●
Visual checks on prisoners (if officer is unavailable)			●
Monitor and open sallyport remotely	●	●	●
Assist officers in incident reports	●		
Monitor remote cameras in parks			●
Dispatch response for city hall or generator alarms	●	●	●
Background checks for bartender applications and liquor license reviews		●	
Process temporary restraining orders	●		
Prepare desk log for roll call	●		
Request for police records	●		●

Note: In South Milwaukee, dispatchers staff the front counter only after 8:00 PM and on weekends. Also, in St. Francis, dispatchers only cancel warrants in TIME, and the only records requests they process are for accidents.

One of the most time-intensive police support functions cited above is entering warrants into the TIME system, which is a task handled by dispatchers in Cudahy and South Milwaukee. Warrants need to be entered into the system within three days after they are received from the courts. Entering a warrant can take as long as 20 minutes because every distinguishing characteristic of the subject must be included on the warrant (tattoos, scars, etc.). Also, each entry needs to be reviewed by a second person to ensure accuracy. The State of Wisconsin audits the accuracy of the warrants in the TIME system.

All three cities also rely on dispatchers for some level of clerical support to the police department, though it is important to recognize that the scope of these clerical duties varies across the three cities. In Cudahy and St. Francis, for example, an automated phone answering system reduces the number of calls to the dispatch center on the general police department line, but South Milwaukee does not have an automated phone system. Also, in Cudahy, dispatchers assist officers in typing and producing incident reports, while dispatchers in the other two cities do not.

Parking Program Support

Another important dispatcher function in each of the three cities is support for parking programs. Each city has its own parking program that limits overnight parking and establishes other parking restrictions. In addition, South Milwaukee has winter parking restrictions.



In 2010, South Milwaukee dispatchers entered 2,700 parking permits into the database and processed payment for 2,064 parking tickets. The St. Francis dispatch supervisor reports that more than 2,998 parking permits were sold in 2010, while Cudahy sold 3,362 in that year. A time study conducted by South Milwaukee dispatch supervisors concluded that dispatchers can spend as many as five to six hours per day on parking permits and citations during the months when winter parking restrictions are in place.

Dispatchers are responsible for a portion of the workload for processing permits and citations in each city, although the amount of that support varies. **Figure 3** shows the variety of parking program-related tasks performed by dispatch center staff in each of the three cities.

Figure 3: Parking Program Support Functions Performed by Dispatchers

	Cudahy	South Milwaukee	St. Francis
Sell parking permits at front counter	●		●
Process payment for parking permits	●	●	●
Generate overnight parking list	●	●	●
Run TIME reports for each parking citation and attach printout to citation	●	●	●
Enter parking citation into citation database	●	●	
Create a CAD entry for each citation	●	●	
File outstanding citations and withdrawn citations	●	●	
File paid citations	●	●	
Accept and process payment for citation	●	●	
Assist in parking notice of delinquency	●	●	
Accept plea forms	●		
Assist in updating citations for TRIP revenue received	●		
Process withdrawn parking citations	●	●	

Support to Courts and Other City Departments

In addition to supporting the police department and parking programs, dispatchers in each of the cities are assigned duties relating to municipal courts and other departments. Cudahy makes the greatest use of dispatchers for such functions, while St. Francis makes very little use. **Figure 4** shows the variety of such tasks performed by dispatchers in each of the three cities.

Figure 4: Courts and Other Departmental Support Functions Performed by Dispatchers

	Cudahy	South Milwaukee	St. Francis
Process non-parking citations (TraCS and warnings)	●	●	
Answer phones for other city departments	●	●	
Collect bail on warrants	●	●	●
Accept plea forms for municipal citations	●		
Process bond for PR warrants	●	●	
Process temporary restraining orders	●	●	
Close out cash register	●		●
Accept all payments (municipal, traffic, permits, etc)	●		
Assist in updating citations for TRIP revenue (municipal and traffic)	●		



Dispatch Staffing

Table 14 shows total dispatcher staffing at each municipality to fulfill the functions discussed above. Part-time dispatchers are converted to full-time equivalents (FTEs) to allow for an accurate comparison between cities.⁸

Table 14: Dispatch Staffing in Full Time Equivalents

	Cudahy	South Milwaukee	St. Francis	Total
Full-Time	8	4	4	16
Part-Time FTEs		1.14	0.85	1.99
Total FTEs	8	5.14	4.85	17.99

Because dispatch centers operate on a 24/7 basis, the number of dispatchers on duty on any shift is less than the total FTEs shown above. **Table 15** shows on-duty dispatchers on each shift at the three cities. This table reveals that South Milwaukee uses a single dispatcher for two shifts per day, while St. Francis uses a single dispatcher for each of its three shifts.

Table 15: On-Duty Dispatchers per Shift

	Cudahy	South Milwaukee	St. Francis	Total
Shift 1	2	1	1	4
Shift 2	2	1.85	1	4.85
Shift 3	1.43	1	1	3.43
Total	5.43	3.85	3	12.28

The discrepancy between the 17.99 FTEs and the 12.28 dispatchers per shift results from the need for each city to accommodate vacation time, sick leave and other absences. In other words, a total staff of nearly 18 FTEs is needed to provide the equivalent of 12.28 on-duty dispatchers to accommodate 24-hour staffing, seven days per week at the three dispatch centers.

Dispatch Workloads

CAD systems are an important source of data on workload in the three dispatch centers. Using CAD, dispatchers track vehicles and officers and document incidents. The CAD screen lists available police and fire units and shows the radio channels available to dispatchers. Dispatchers use the touch screen to answer the phone, switch between radio channels, and call for mutual aid. When a 911 or regular phone call is received, it automatically generates a CAD entry, while dispatchers generate CAD entries on their own for other radio communications or activities.

Table 16 compares 2011 police CAD entries for each of the three South Shore cities. CAD data relating to the three fire departments are not included in the table because CAD is considered by the fire chiefs to be less accurate in describing fire response than their own systems.

⁸ South Milwaukee employs two part-time employees who equate to its 1.14 part-time FTEs, while St. Francis employs three part-time employees who equate to its 0.85 part-time FTEs.



Table 16: CAD Entries, 2011

	Cudahy	South Milwaukee	St. Francis
Total 911	3,403	5,523	2,083
Alarm	9	31	1
Officer Response	5,799	15,912	6,072
Phone	7,997	3,875	2,568
Front Counter	746	2,064	568
Other Non-Emergency	94	94	457
Total	18,048	27,499	11,749

The CAD data confirm observations made during visits to each dispatch center that dispatchers spend a substantial amount of time on officer response or monitoring. The CAD data also show that a large portion of the dispatcher's role relates to non-emergencies. Non-emergencies that would result in a CAD entry include many tasks associated with processing parking tickets (which require a TIME transaction). General administrative tasks would not be reflected in the CAD system.

CAD data also indicate the times when dispatch workload is busiest. Data from all three cities show police activity is highest on Fridays, and that the summer months tend to be the busiest time of year. (This is especially true in South Milwaukee due to recreational activity in Grant Park during the summer.) **Table 17** shows police CAD entries for all three cities by shift.

Table 17: CAD Entries by Shift, 2010 and 2011

	2010		2011	
	Total CAD	Percent	Total CAD	Percent
Shift 1	20,679	32.8%	21,247	33.5%
Shift 2	24,812	39.3%	23,847	37.6%
Shift 3	17,634	27.9%	18,261	28.8%

CAD entries relating to fire (which are primarily EMS responses) do not show as clear a pattern on a weekly or monthly basis, but do suggest that the early morning hours have the lowest number of calls. The highest volume of EMS calls occurs between 9:00 AM and 1:00 PM. Summer months also are busier for EMS calls.

One difficulty in relying entirely on CAD data to compare dispatch workloads is that the job of a dispatcher differs in each city, with certain functions not registered in CAD. In addition, each dispatch center uses its CAD system differently. For example, an incident that receives a single CAD entry in one jurisdiction may be separated into two CAD entries in another city (e.g. when a second unit is dispatched).



Another difficulty stems from the fact that individual dispatchers and police officers may vary in how they use the system. Certain police officers, for example, may check in with dispatch more frequently than others. **Table 16** above shows that CAD entries in Cudahy for the category of Officer Response are lower than those for St. Francis, despite the fact that Cudahy has 10 more sworn officers. This discrepancy may result either from differences in officer tracking protocols, or in how officer response transactions are entered into CAD.

The CAD data on 911 calls also raise some questions. Although Cudahy and South Milwaukee are demographically very similar, the number of 911 CAD entries for Cudahy is only about 60% of the total for South Milwaukee.

Due to the issues cited above regarding the comparability of CAD data – particularly with regard to 911 calls – we researched alternative data sources to provide perspective on dispatch activity levels in the three communities. AT&T tracks all 911 calls transferred to dispatch centers on landlines, while cell phone calls to 911 throughout Milwaukee County are answered at the Sheriff’s dispatch and then transferred to the appropriate municipal dispatch center. Combined, these two data sources provide a reliable estimate of total 911 calls received annually at each city’s dispatch center. As shown in **Table 18**, the three dispatch centers combined received 9,424 calls in 2011, or about 26 calls per day.⁹

Table 18: AT&T and MCSO data on 911 Calls, 2011

	Cudahy	South Milwaukee	St. Francis	Total
Landline 911 calls	1,644	1,687	1,064	4,395
Cellular 911	2,284	2,050	695	5,029
Total 911 calls incoming	3,928	3,737	1,759	9,424

Note: 1,095 test calls to 911 (one per shift) are excluded from the landline totals for St. Francis.

Dispatch Center Operating Costs

Table 19 shows amounts budgeted in 2012 for each dispatch center, as well as a cost per dispatch FTE. This information reveals a wide discrepancy in spending among the three communities, with Cudahy spending considerably more than the other two cities. Expenditure totals are driven largely by the number of dispatch personnel employed by each and whether they are full-time or part-time.

⁹ These totals do not include the small number of cell phone calls made in surrounding counties that are transferred to South Shore cities each year.



Table 19: 2012 Budgeted Dispatch Center Costs

	Cudahy	South Milwaukee	St. Francis	Total
Salaries	\$359,317	\$227,569	\$182,697	\$769,583
Overtime	\$18,500	\$0	\$8,289	\$26,789
Health Insurance	\$76,968	\$50,215	\$38,855	\$166,038
Retirement	\$22,291	\$13,427	\$9,891	\$45,609
Social Security	\$28,903	\$17,409	\$15,422	\$61,734
Other Benefits	\$5,454	\$4,578	\$6,958	\$16,990
Total Personnel Costs	\$511,433	\$313,198	\$262,112	\$1,086,743
Other Costs	\$13,764	\$52,432	\$25,000	\$91,196
Total Expense	\$525,197	\$365,630	\$287,112	\$1,177,939
Dispatch FTE	8	5.14	4.85	17.99
Cost/Dispatcher FTE	\$65,650	\$71,134	\$59,198	\$65,477

Dispatch Equipment

The quality and capacity of a municipality's dispatch equipment is critical to its ability to appropriately carry out its dispatch functions. This equipment consists of dispatch consoles and radios, which include portable radios and radios located in squad cars. All three of the South Shore cities use the same version of Phoenix, the CAD software. Each city's system is hosted on servers at the City of West Allis.

Dispatch communications are carried over an 800 Mhz trunked radio system operated by Milwaukee County. The County currently is planning a transition from analog to digital equipment at 10 sites. This introduction of digital communications is an important consideration for all three cities because older dispatch consoles and radios may not function in a digital environment. Whenever the transition to digital occurs, all municipalities using the County's system must have digital-capable dispatch consoles and radios. The following summarizes the condition of each South Shore city's dispatch equipment:

- South Milwaukee: Purchased two dispatch consoles in 2000, and those are scheduled for replacement in 2015. All radios recently have been replaced. South Milwaukee's radios and consoles are digital-capable.
- St. Francis: Purchased main dispatch console in 2000 and has a backup console that is only used during fire incidents. Neither console is digital-capable. St. Francis replaced its portable radios two years ago and those radios are digital-capable, but it will need to replace eight squad car radios when the County converts to digital. St. Francis has set aside \$380,000 to replace one dispatch console.
- Cudahy: Purchased two new dispatch consoles in 2010 and has a third backup console with a limited number of radio channels. Its radios and consoles (other than the backup consoles) are digital-capable.



MODELING THE WORKLOAD OF A CONSOLIDATED DISPATCH CENTER FOR THE SOUTH SHORE COMMUNITIES

Based on the information presented in the preceding section regarding each city's dispatch center staffing, responsibilities, equipment, and activity levels, we can begin to envision the characteristics of a potential consolidated dispatch center to serve the three communities. In order to determine the structure for such a center, it first is necessary to derive an estimate of total workload. From that estimate, we can develop a potential staffing plan and calculate an annual personnel budget.

It also is important to define which administrative and clerical tasks currently performed by dispatch staff in the three cities would need to remain with each city's police department or general government if dispatchers were relocated to a central operation. By doing so, we then can determine the number of new positions that might be needed to fulfill those tasks.

The use of time studies is a common method for projecting the staffing levels required to operate a dispatch center. In fact, a decade ago, the three subject cities and the City of Oak Creek considered a consolidated dispatch operation, and a time study was used as the basis for that analysis. The time study approach estimates the number of minutes required to handle each type of call and multiplies the time per call by the total number of calls typically received in a given year. That total then is used to estimate the number of staff hours needed to handle the projected call volume.

For this study, we also use a second means of analysis based on survey data collected from other dispatch centers. We conducted a survey of three localities that serve populations similar to the combined population of the three South Shore communities to determine the dispatch staffing levels they employ. We then compared those staffing levels to the necessary staffing levels suggested by our time study analysis for a South Shore consolidated dispatch center.

Time Study Approach

Table 20 shows the number of calls by type that is the basis for the time study approach, as well as the average amount of time spent by the dispatcher for each type of call. It is important to note that because this information is based on the CAD data as described in the preceding section, it includes any police administrative function that would generate a CAD entry. Several dispatch studies conducted in various other jurisdictions were consulted to determine average times per type of call or activity.



Table 20: Time Study Approach, South Shore Consolidated Dispatch

	CAD Entries/Calls	Minutes/ call	Total minutes
Total Landline 911 calls	4,395	1.0	4,395
Total Cellular 911 calls	5,029	1.5	7,544
Alarm	41	1.0	41
Non-emergency phone calls	14,440	3.0	43,320
Officer response	37,783	0.5	18,892
Front Counter	3,378	5.0	16,890
Other non-emergency	770	4.0	3,080
CAD Entry time/follow up	65,836	4.0	263,344
Subtotal			357,505
TIME Transactions			78,477
Total Minutes			435,982
Total Hours			7,266.36
Total person hours (1,664 hrs/emp)			4.37

Explanations of each source of call data, and some adjustments made to the data, are described below.

- The number of 911 calls is based on the data supplied by AT&T and the Milwaukee County Sheriff's Office as reflected in **Table 18** (page 21). Note that these data include both police and fire 911 calls.
- Non-emergency calls are derived from CAD data. In addition to the police CAD entries shown in **Table 16**, 125 non-emergency CAD calls relating to fire/EMS are included.
- The number of CAD entries for Cudahy officer response was increased by 10,000 to bring Cudahy's total into line with South Milwaukee. This adjustment – which increases the total time estimate substantially– reflects the concern noted in the preceding section that the disparity in CAD entries between the two communities likely results from different recording protocols, as opposed to sharply divergent activity levels. This assumption was reviewed with police and dispatch personnel from the three communities.
- The handle time for a 911 call conservatively is assumed to be 60 seconds, although many studies assume a handle time of only 30 seconds.
- Cellular calls to 911 have a longer handle time than landline 911 calls because the dispatcher needs to verify location of the incident and caller. The 1.5 minutes assigned to such calls is the amount prescribed for a call transfer by the National Fire Protection Association.
- The estimated 30 seconds per officer response call is based on observation. Most of these communications are quick confirmations of an officer's location.
- Because many studies have shown that non-emergency activities take more than twice as long to process as 911 calls, we use estimates for non-emergency calls of three minutes, non-



emergency other activities of four minutes, and front counter activities of five minutes (as compared to 1.5 minutes for a cellular 911 call and one minute for a landline 911 call). Handling the front counter, in particular, requires time for dispatchers to greet the person, ascertain their need, retrieve a form or other paperwork, accept a payment, etc.

- The time spent on TIME transactions is based on an assumption that such transactions will account for 18% of total dispatcher time. This estimate comes from a time study of Oak Creek dispatchers conducted in 1997 by RCC. The RCC data are included as **Appendix A**.
- We conservatively add an additional four minutes for *every* call to account for CAD entries and follow-up.

As shown above, this model indicates an annual workload of 435,982 minutes for a combined dispatch center in the three South Shore cities, or approximately 7,266 hours. The number of dispatchers needed to handle 7,266 hours of dispatching activity then can be derived by dividing that total by the number of annual hours worked per dispatcher.

While a full-time dispatcher typically is budgeted at 2,080 hours per year, most dispatchers do not spend eight hours of a day in focused concentration on their direct dispatch activity. Non-dispatch activities, such as meetings, informal updates with co-workers and supervisors, etc. take up some portion of each dispatcher's day. Consequently, an adjustment of 20% was made to account for non-dispatch time, yielding an assumption that each dispatcher would work 1,664 hours per year on direct dispatching activities. (Additional adjustments for vacation, sick time and other leave are made when we estimate actual staffing levels later in this report.)

The calculations in **Table 20** suggest, therefore, that 4.37 dispatchers would be needed to handle the workload associated with a combined South Shore dispatch center. The workload, however, must be spread over three shifts. Using the per-shift dispatch activity shown earlier in **Table 17**, we can multiply the 4.37 dispatchers needed to handle the total workload by the percentage of activity attributed to each shift to estimate the required dispatch staffing per shift. Those estimates are shown in **Table 21**.

Table 21: Estimated On-Duty Dispatch Staffing, Time Study Approach

	Shift percentage	On-duty dispatchers	Rounded up
Shift 1	31.9%	1.39	2
Shift 2	38.8%	1.69	2
Shift 3	29.3%	1.28	2

While between one and two dispatchers are shown to be needed per shift, we round up the estimate to two per shift because the volume of work indicated by the time study would exceed the capabilities of a single dispatcher. This rounding up does suggest, however, that dispatchers would have productive work hours that are not being filled entirely with direct dispatch activities that could be used to conduct additional administrative or other duties.



Survey of Similar Communities

Our second approach to projecting required staffing levels for a South Shore consolidated dispatch center is based on a survey we conducted of dispatch centers estimated to have activity levels comparable to a consolidated South Shore dispatch center. This method is less detailed than the time study, but is useful as a check on the conclusions of that study.

A brief survey of dispatch center staffing was distributed to three cities. Those cities are in urban or suburban areas and they are somewhat similar to the South Shore region in terms of population, crime rates, and the number of sworn officers. **Table 22** compares the characteristics of the survey cities with the collective characteristics of the three South Shore communities.

Table 22: Comparison of Survey Cities and South Shore Region

	South Shore Cities	Sheboygan	Wauwatosa	West Allis
Population	50,174	47,782	46,396	60,529
Sworn Personnel	82	76	94	127
Violent Crime Rate*	124	234	167	342
Property Crime Rate*	2,771	3,133	4,055	4,963

* Per 100,000 residents

Of the three comparison cities, Sheboygan and Wauwatosa have the most similarity to the South Shore cities. West Allis was included in the survey at the suggestion of city administrators, though it is important to note that West Allis' population is 20% higher than that of the South Shore cities, and the number of sworn personnel in West Allis exceeds that of the South Shore by 50%. The survey asked dispatch managers to report on dispatch staffing per shift. The results are shown in **Table 23**.

Table 23: Comparable Dispatch Center Staffing by Shift

	South Shore Cities	Sheboygan	Wauwatosa	West Allis*
Shift1	4.0	2.0	2.7	2.2
Shift 2	4.8	2.0	2.0	2.2
Shift 3	3.4	2.0	2.0	1.7
Total FTE	17.99	14.00	10.90	9.61

* In West Allis, a desk sergeant supervises the dispatch center and is available to assist with dispatching when both dispatchers are on a call. An additional 0.2 FTE is included to account for the time spent dispatching by the desk sergeant.

The comparable cities typically deploy either two or slightly more than two dispatchers per shift. The survey generally supports the results of the time study, which indicated that a 2/2/2 staffing pattern would be sufficient to handle the volume of work as represented by the CAD data from the South Shore cities.



A STAFFING MODEL FOR A CONSOLIDATED DISPATCH CENTER

The modeling and surveying conducted in the previous section provide insight into the number of personnel needed to staff a consolidated dispatch center serving Cudahy, South Milwaukee and St. Francis. An additional element for such a model, however, is to determine the responsibility for non-dispatch administrative tasks currently performed by dispatchers in the three cities. While many of those tasks – such as receiving medication, staffing the front counter, and acting as the jail matron – still would need to be performed by police department staff, it is possible that others could be handled by the consolidated dispatch operation.

Consequently, in developing a staffing model for a consolidated dispatch center, it is necessary to consider which administrative tasks would remain with the three police departments and thus require potential backfilling of positions (or parts of positions) to handle those tasks, and which might be transferred to the consolidated dispatch center. Three administrative areas deserve particular attention:

- Answering the general phone line of the police department. A large number of phone calls are received on the police department general phone line, most of which are transferred or require a brief answer from the dispatcher. Based on input from city staff, the staffing plan assumes that a consolidated dispatch center would answer the general police phone line for each city.
- Parking programs. Consultation with city staff determined that duties related to parking administration would remain with each city, rather than be transferred to a consolidated dispatch center. One exception would be generation of the overnight parking list, a task that would be transferred to the consolidated dispatch center because departmental administrative staff presumably would not be available after 5:00 PM to receive calls.
- TIME system entries. If dispatch operations were consolidated, most of the duties related to the TIME system would stay with the dispatchers. This includes entering, confirming and canceling warrants, as well as TIME entry validation (St. Francis would retain entry of warrants into TIME and TIME entry validation within its police department). At the same time, administrative staff at each city would need to be trained and certified on the TIME system in order to run license information for parking citations.

The time study approach, which suggested a staffing pattern of 2/2/2, accounted for those administrative tasks that resulted in a CAD entry, as well as some tasks that require use of the TIME system. So, for example, researching the vehicle information related to a parking citation and creating a CAD entry for each citation is included in the calculation of time spent by dispatchers on core duties, while answering the general police department phone line is not.

Figure 5 takes the time study into account and further separates administrative tasks into two categories: those that we assume would be handled by a consolidated dispatch center; and those that are location-specific and logically would remain with the individual police departments.



Figure 5: Allocation of Administrative Tasks*

	Consolidated Dispatch tasks	Onsite Admin tasks
Answer general police Information line	●	
Enter, confirm and cancel warrants in TIME	●	
TIME entry validation	●	
Support medication disposal program		●
Monitor teletype	●	
Staff front counter		●
Matron for female prisoners		●
Monitor cameras on holding cells	●	
Visual checks on prisoners (if officer is unavailable)		●
Monitor and open sallyport remotely	●	
Assist officers in incident reports		●
Monitor remote cameras in parks	●	
Dispatch response for city hall or generator alarms	●	
Bartender applications, Liquor License review		●
Process temporary restraining orders		●
Prepare desk log for roll call		●
Request for police records		●
Sell parking permits at front counter		●
Process payment for parking permits		●
Generate overnight parking list	●	
Run TIME reports for parking citations and attach printout to citation		●
Enter parking citation into citation database		●
Create a CAD entry for each citation		●
File outstanding citations and withdrawn citations		●
File paid citations		●
Accept and process payment for citation		●
Assist in parking notice of delinquency		●
Accept plea forms		●
Assist in updating citations for TRIP revenue received		●
Process non-parking citations (TraCS and warnings)		●
Answer phones for other city departments		●
Collect bail on warrants		●
Accept plea forms – muni citations		●
Process bond for PR warrants		●
Process temporary restraining orders		●
Close out cash register		●
Accept all payments (municipal, traffic, permits, etc)		●

* If a task is highlighted in yellow, it indicates that the task results in a CAD entry in at least one jurisdiction, and therefore is included in the time study. Because administrative duties and CAD procedures vary between the three cities, the same task may not generate a CAD entry in all three of the cities.

This breakdown assumes that there are some administrative tasks in addition to those included in the time study that would be assumed by a consolidated dispatch center (e.g. answering the general phone line and monitoring remote cameras). It also assumes, however, that almost all of the duties relating to parking programs, which are included in the 2/2/2 staffing estimate yielded by the time study, would instead be handled by city staff.



Because of this balance, and because we rounded up the time study staffing determination of 1.39/1.69/1.28 FTEs per shift to 2/2/2, we assume there would be sufficient capacity, particularly on the first and third shifts, to allow dispatchers to perform additional administrative tasks. As a result, we believe that a consolidated dispatch center staffing pattern of 2/2/2 should be sufficient to handle both core dispatch duties and the additional administrative workload described in **Figure 5**. That belief also is backed by the fact that an independent consolidated dispatch center would require the hiring of a Dispatch Manager, who would add capacity during some of the busiest hours of the day; and that one of the most time-consuming duties currently handled by dispatch personnel in the three cities – support of parking programs – would not be transferred to the consolidated dispatch center.

Nevertheless, when we described our methodology and conclusion to police and dispatch staff from the three communities, we did hear concerns that the 2/2/2 staffing framework would not provide sufficient dispatch capacity. We decided, therefore, to also model a 2/3/2 dispatcher staffing framework, adding a third dispatcher to the busiest shift.

The next question involves the number of new administrative staff that would be needed at each city if dispatch staff were transferred to a consolidated dispatch center. The answer to this question is not clear cut, as our previous analysis showed that the type and amount of administrative workload currently performed by dispatchers varies in each city. We were able to determine staffing estimates, however, as follows:

- In St. Francis, while the total administrative workload of dispatchers was shown to be less than that of dispatchers in South Milwaukee and Cudahy, dispatchers do staff the front counter. We assume that a single clerical employee would be required to cover the administrative duties now handled by dispatchers in St. Francis.
- In South Milwaukee, dispatchers do not staff the front counter during the day shift, but they do provide administrative support to the city's parking program and have a large workload at certain times of the year relating to bartender and liquor license applications. We assume that two clerical employees would be required to cover this workload.
- In Cudahy, dispatchers spend a considerable amount of time on parking functions, and they assist officers with incident reports and support the municipal courts. We assume that two clerical employees also would be needed in Cudahy to support this administrative workload.

Table 24 combines the two dispatch staffing models and our assumptions regarding administrative staff needed to “backfill” at each city government to show our projection of the total staffing levels required under each consolidated dispatch center scenario. As noted above, a Dispatch Manager has been added to each staffing model to account for the need for managerial oversight and administrative support of the dispatch operation.



Table 24: Dispatch and Administrative Staffing

	FTE	FTE
Dispatcher Staffing	2/2/2	2/3/2
Dispatch Manager	1	1
Administrative Backfill		
Cudahy	2	2
South Milwaukee	2	2
St. Francis	1	1

It is important to note that we base our assumptions on administrative staff on qualitative information provided by officials from each municipality regarding the amount of time devoted to administrative workload by dispatch staff. Consequently, the estimates of administrative staffing presented here may require more detailed analysis and review. **In particular, additional consideration should be given as to whether existing clerical or administrative staff within the three police departments or elsewhere in city government may be able to absorb some of the non-dispatch administrative tasks currently performed by dispatchers, thus obviating the need to backfill the loss of the dispatch function with new full-time positions.**



FISCAL IMPACTS OF A CONSOLIDATED DISPATCH CENTER

In order to determine the fiscal impacts of a consolidated dispatch center for the three South Shore municipalities, we first examine the estimated personnel costs for each of the two staffing models described in the previous section. (Each model assumes the effective use of part-time staffing to minimize costs.) We then add an estimate of non-personnel costs to arrive at a total budget estimate for each model.

It is important to note that while these cost calculations assume a consolidated dispatch center would operate independently from any of the three police departments, no capital expenses for a dispatch center building are included. That is because capital costs would be impossible to determine without a site and project proposal. It also is possible, of course, that a new South Shore consolidated dispatch center – while operating independently from the three city governments – still would be located on the premises of one of the three police departments.

Operating Costs

As described earlier in this report, the total staffing required for a dispatch center must exceed the on-duty staffing pattern to account for paid and unpaid time off. **Table 25** shows one method of converting total budgeted hours (at 2,080 hours per year) to net working hours. We borrow this methodology from a dispatch consolidation study by the consulting firm GeoComm for The Southeastern Regional Planning and Economic Development District in Massachusetts. The actual ratio of total budgeted hours to net working hours will depend on the benefits offered to dispatchers, their years of service, and other factors.

Table 25: Calculation of Net Working Hours

	Hours
Total Budgeted Hours	2,080
Vacation/PTO	120
Sick Leave	80
Holiday	80
Training	40
Meals/Breaks	225
Net Working Hours	1,535

Source: GeoComm, Southeastern Regional Planning and Economic Development District, *Final Feasibility Report and Implementation Plan*

Using the ratio of net working hours to total budgeted hours (0.74), we estimate that the dispatch center will need 9.5 dispatcher FTEs to support an on-duty staffing level of seven dispatchers for the 2/3/2 model depicted in the previous section. For the 2/2/2 model, using the same conversion factor of 0.74, we estimate that 8.1 dispatcher FTEs would be needed to support an on-duty staffing level of six dispatchers.

In **Tables 26** and **27**, we use the FTE projections for the two staffing models to estimate the total operational costs associated with each model. These cost estimates are based on the following assumptions:



- Salary expenses are based on average salaries and benefits of dispatch personnel at the three existing dispatch centers (benefits are not included for part-time staff).
- We estimate that the Dispatch Manager would be paid at a salary/benefit level of \$95,000. This figure is an estimate based on a review of open dispatch manager positions advertised online.
- We estimate that non-personnel expenses will constitute 14.2% of total dispatch center costs. Examples of such expenses are supplies and information technology support. Our estimate was derived by taking the current percentage of non-personnel expenses in the three dispatch budgets based on information provided by the three cities (7.1%) and doubling that amount. We double the percentage based on our belief that non-personnel expenditures would be substantially higher in an independent dispatch operation, which likely would not receive the same level of administrative and related support from the individual city governments.¹⁰
- The onsite clerical support positions are budgeted at \$50,000 salary and benefits per FTE. This estimate is based on information provided by the city administrators.

Table 26: Operating Cost of Consolidated Dispatch Center with 2/3/2 Dispatch Staffing

	FTE	Salary/Benefits	Total Expense
Dispatchers	9.5		
Full time	8.0	\$65,635	\$525,083
Part time	1.5	\$41,879	\$62,819
Dispatch Manager	1.0	\$95,000	\$95,000
Administrative Costs			\$113,199
Total Dispatch Cost			\$796,102
Clerical Backfill	5.0	\$50,000	\$250,000
Total Option Cost			\$1,046,102

Table 27: Operating Cost of Consolidated Dispatch Center with 2/2/2 Dispatch Staffing

	FTE	Salary/Benefits	Total Expense
Dispatchers	8.1		
Full time	6.0	\$65,635	\$393,812
Part time	2.1	\$41,879	\$87,947
Dispatch Manager	1.0	\$95,000	\$95,000
Administrative Costs			\$95,605
Total Dispatch Cost			\$672,364
Clerical Backfill	5.0	\$50,000	\$250,000
Total Option Cost			\$922,364

¹⁰ It is impossible to determine the extent to which the Dispatch Manager could handle “back office” support functions like payroll and budgeting, whether those services might be lent by one of the three municipalities, or whether those services would need to be purchased. Our working assumption – which should receive further analysis should plans for an independent consolidated dispatch center move forward – is that the amounts allocated for administrative costs will cover the cost of those support functions, as well as IT consulting, supplies, etc.



Table 28 compares the operating cost of the two consolidated dispatch center models with 2012 budgeted expenditures in each municipality. **This comparison reveals that an independent consolidated dispatch center has potential to save between \$131,837 and \$255,575 in operating costs for the three communities on an annual basis, which equates to 11% to 22% of current annual combined dispatch expenditures.**

Table 28: Estimated Annual Operating Savings of a Consolidated Dispatch Center

	2/3/2 Model	2/2/2 Model
2012 Combined Budget	\$1,177,939	\$1,177,939
Consolidated Dispatch Model	\$1,046,102	\$922,364
Annual Savings	\$131,837	\$255,575

Equipment Savings

It also is important to consider potential savings in dispatch equipment. Since Cudahy recently replaced two of its dispatch consoles, we assume that those consoles would be used by the consolidated dispatch operation. Consequently, under the consolidation model, South Milwaukee and St. Francis no longer would need to replace their older equipment, saving approximately \$200,000 per console (South Milwaukee would need to replace two consoles and St. Francis one).¹¹ Those savings likely would occur in the next five years, as both cities purchased their consoles in 2000.

Table 29 shows the amount of potential equipment replacement savings that ostensibly would accrue to the two municipalities.¹² It is important to note that if consolidation occurs, then the savings likely would be shared by the three communities in a distribution formula to be determined by all three, as the replacement savings for South Milwaukee and St. Francis only would materialize from the joint decision of all three communities to consolidate. Also, whatever formula is determined likely would need to take into account reimbursement for Cudahy for the use of its equipment.¹³

Table 29: Estimated Savings on Equipment Replacement

	No. of Consoles	Cost/ Console	Total Expense
South Milwaukee	2	\$200,000	\$400,000
St. Francis	1	\$200,000	\$200,000
Total			\$600,000

It also is important to recognize that under a 2/3/2 dispatcher staffing model, a third console likely would need to be purchased. Consequently, the equipment savings under that model

¹¹ The \$200,000 estimate is based on a quote received by South Milwaukee. It is possible that the actual cost would be higher depending on the exact specifications of the equipment. In fact, when Cudahy purchased replacement consoles in 2010, the cost was closer to \$300,000 per console.

¹² There also would be smaller savings attributed to reduced maintenance for the smaller number of consoles, but we are unable to pinpoint a dollar amount to include in our overall cost calculation.

¹³ One option would be for St. Francis and South Milwaukee to provide a usage fee to Cudahy over the 10-year useful life of the equipment. Alternatively, a sinking fund for the purpose of equipment purchase could be established, which would be funded by St. Francis and South Milwaukee exclusively.



would be reduced by approximately \$200,000. In **Table 30**, we show potential total five-year savings (both operating and capital) for the three cities under each staffing model.

Table 30: Potential Five-Year Operating and Capital Savings

	2-3-2 Staffing Model Potential Five-Year Savings	2-2-2 Staffing Model Potential Five-Year Savings
Operating Budget (Based on Model)	\$659,185	\$1,277,875
Capital Budget (Based on Projected Console Replacement Avoidance)	\$400,000	\$600,000
TOTAL	\$1,059,185	\$1,877,875

Cost Allocation Models for a Consolidated Dispatch Center

As noted above, if dispatch operations are consolidated, then the three cities would need to agree on a cost allocation formula to determine the annual expenditures required by each to support the new dispatch center. In other jurisdictions that have consolidated dispatch or other public safety functions, factors such as each city's share of the combined population, property value or dispatch/public safety activity have been used, as have weighted calculations using a combination of these or other factors.

The three cities also could elect to simply share costs or savings on an equal basis. For example, if savings per our 2/2/2 dispatcher staffing model were divided equally, then each city would experience an annual operating savings of approximately \$85,000 per year.

We cannot project how the three cities would elect to determine the cost allocation formula. For illustrative purposes, however, we modeled an approach that would apply each city's share of current combined expenditures on dispatch operations to the cost of the consolidated dispatch center in order to relate savings to current willingness to pay for dispatch operations. **Table 31** shows the potential savings to each city under this allocation formula using 2012 budgeted expenditure data.¹⁴ Again, we use the 2/2/2 dispatcher staffing model to illustrate the impacts.

Table 31: Consolidated Dispatch Savings by City, Expenditure-based Formula

	Share of Combined Expenditures	Consolidated Dispatch Expense	Additional Admin Expense	Total Expense	Current Expense	Savings
Cudahy	44.6%	\$299,874	\$100,000	\$398,874	\$525,197	\$126,323
South Milwaukee	31.0%	\$208,433	\$100,000	\$308,433	\$365,630	\$57,197
St. Francis	24.4%	\$164,057	\$50,000	\$214,057	\$287,112	\$73,055
Total		\$672,364	\$250,000	\$922,364	\$1,177,939	\$255,575

The savings in **Table 31** do not include equipment replacement savings, nor do they include possible costs for space rental, remodeling, or construction for the new dispatch center. As noted above, both of those factors could impact the nature of the allocation formula.

¹⁴ This table uses expenditure data collected from each municipality. It is important to note that any decision to use this formula would need to entail a more comprehensive examination of city-by-city expenditures to ensure that methodologies for assigning expenditures to dispatch operations are comparable.



PROGRAMMATIC IMPACTS OF A CONSOLIDATED DISPATCH CENTER

It is beyond the scope of this report to conduct a detailed operational analysis that might shed light on possible operating efficiencies produced by a consolidated South Shore dispatch center. In general, however, the following operational advantages have been cited by other jurisdictions where dispatch consolidation has occurred:

- Improves interoperability and information sharing among distinct public safety agencies that often respond jointly to large-scale incidents or accidents. In particular, a consolidated dispatch operation allows the agencies to directly communicate with one another during such incidents/accidents (or multi-city police chases), rather than attempting to communicate via separate systems.
- Allows communities to pool resources to pay for system upgrades, thus ensuring use of up-to-date dispatch technology.
- Reduces maintenance costs associated with multiple systems, equipment and facilities.
- Allows for greater flexibility in employee schedules and staffing arrangements, thus improving personnel efficiency.
- Pooled resources and larger operation provide opportunity for better training and facilities, which improves job satisfaction and retention of qualified staff.
- Eliminates redundant records management systems.

Another potential benefit of a consolidated dispatch center would be its ability to address a perception held by some fire department personnel that the current police department-administered dispatch operations do not fully accommodate the dispatching needs of fire services and EMS. For example, some believe that an independent dispatch operation might have the capacity and expertise to place greater emphasis on tracking fire apparatus and ambulances in the field and meeting the distinct needs of fire department operations.

On the negative side, it is important to note that the transfer of dispatch operations to a consolidated dispatch center could produce additional operational challenges for the three police departments that are not addressed in the staffing model. Two of the most significant are:

- The model may not accommodate 24-hour staffing at police stations, which is currently made possible in each city by the presence of dispatch staff at all hours of the day. Some may argue that this would produce a decline in the level of police protection offered in each community. In other communities, the lobbies of police stations have remained lit during off-hours and have been outfitted with a camera that is monitored remotely by dispatchers and a phone that is linked directly to the offsite dispatch center. Also, it should be noted that each of the cities could elect to maintain 24-hour staffing with use of other police personnel, though that may diminish the cost savings realized by a consolidated dispatch operation.



- Dispatchers would not be available to act as jail matrons on off-hours.

Further analysis by city staff is required to definitively determine how the three police departments would manage the loss of an on-site dispatch operation, and whether any potential loss of functionality for each department would outweigh the financial and operational benefits that may accrue from consolidating dispatch operations.



GOVERNANCE QUESTIONS

Per the instruction of the mayors and chief administrators, this analysis assumes that if the three cities decided to pursue a consolidated dispatch operation, then that operation would take the form of an independent consolidated dispatch center. Under such an approach, the dispatch center presumably would be governed by its own board of directors, which would set policy, approve the budget, assist in long-range planning, and establish pay and benefit practices. The specific composition of the board would need to be determined by the three municipalities.

The legal authority to establish a consolidated dispatch center is contained in Section 66.0301 of the Wisconsin Statutes, which allows municipal governments to form intergovernmental agreements for the joint administration and delivery of certain types of services. Elected officials from the three cities would need to develop such an agreement if they decide to pursue a consolidated dispatch center. That agreement would establish the basis for many of the administrative, jurisdictional and logistical details of the new center, including where it would be housed, disposition of existing equipment, and the cost allocation formula.

As noted in previous sections, a key question not contemplated by our fiscal analysis is where the consolidated dispatch center would be housed. If a new building and site were chosen for the independent center, then construction/acquisition or lease costs would add substantially to the final cost. On the other hand, if the new dispatch center was housed within an existing dispatch center in one of the three cities, then the additional cost could be minimal or could be factored into the cost allocation formula, depending on whether substantial remodeling is required.

The three communities also could explore a contract with an existing dispatch center to handle their combined dispatch duties. This contract could entail having one of the three cities perform collective dispatch operations under contract with the other two, or it could entail entering into a contract with a nearby jurisdiction such as West Allis, Oak Creek or the North Shore.

Either option potentially could be far less costly than establishing an independent consolidated dispatch operation. For example, if Cudahy provided dispatch services for all three cities, it is possible that little new equipment would need to be immediately purchased, and that dispatch staffing capacity would not have to expand substantially given that Cudahy already employs eight full-time dispatchers. Consequently, Cudahy could benefit from receiving reimbursement for a service that would not grow dramatically in cost, while the contractual payments provided by South Milwaukee and St. Francis could be significantly lower than the costs they are currently incurring to provide dispatch services themselves.

Contracting with a different jurisdiction for dispatch services also could produce additional savings. Instead of funding the entire salary of a manager, for example, the South Shore cities potentially would fund only a share. Also, neighboring dispatch centers may have capacity to absorb additional call volume and thus require few additional staff, which could be reflected in the price they would charge to the three cities. A logical next step would be to contact one or more nearby dispatch centers to determine potential contracting costs. Of course, any savings that could be achieved by contracting for dispatch services also would need to be weighed against any detrimental impacts of relinquishing administrative oversight of dispatch operations.



CONCLUSION

This report is the product of a study process initiated by elected officials and administrators in Cudahy, South Milwaukee and St. Francis to explore the potential cost savings associated with creation of an independent consolidated dispatch center to serve the three cities. While the purpose of this report was not to recommend a specific course of action, our research, modeling and deliberations with municipal public safety and administrative personnel have produced the following conclusions:

- **By consolidating their dispatch operations into an independent consolidated dispatch center, the three cities could reduce their current combined dispatch staff, thus reducing annual operating expenditures by approximately \$132,000 to \$256,000.** Those potential savings represent 11% to 22% of current annual combined dispatch expenditures by the three cities. The operational savings estimates include the cost of new clerical staff positions at each municipal government to handle non-dispatch administrative tasks currently handled by dispatchers, as well as a manager at the new dispatch center. The estimates do not take into account, however, any costs associated with leasing, buying or remodeling space for the new dispatch center.
- **By consolidating their dispatch operations into an independent consolidated dispatch center, the three cities could eliminate the need to collectively replace two or three dispatch consoles, producing equipment savings within the next five years of approximately \$400,000 to \$600,000.** It is impossible to determine how the equipment savings would be distributed, but we assume they would be equitably distributed per a cost allocation formula developed by the three cities that also would take into account some form of reimbursement to Cudahy for using its newer consoles at the consolidated dispatch center.
- **A scenario under which one of the three cities performed dispatch services under contract with the other two likely would yield substantial additional savings, as would a scenario under which the three cities contracted with a neighboring jurisdiction for dispatch services.** Per the instruction of the three mayors, this analysis focused primarily on the potential creation of an independent consolidated dispatch center to serve the three municipalities. That approach may be most politically palatable in that none of the three would control the dispatch operation, but the costs associated with the need to potentially lease or purchase space, hire a dispatch center manager, contract for back office support, and otherwise set up an independent organization may outweigh that benefit.
- **Weighing potential cost savings against the loss of local control over dispatch operations and the potential loss of 24-hour staffing at each city's police headquarters is a difficult endeavor.** At first glance, the potential for more than a quarter of a million dollars of annual operating savings and \$600,000 in five-year equipment savings across the three cities appears worthy of pursuit. We cannot place a value, however, on each city's ability to solely control its dispatch operations, and to maintain those operations at its own police headquarters. When potential savings are broken down across individual municipalities, the issue of cost versus benefit becomes less clear, as the three cities may experience differing levels of savings depending on the nature of the cost allocation formula.



- **If the three cities do not decide to pursue consolidation of their dispatch operations, then they may wish to at least review whether the administrative tasks assigned to dispatchers might be more appropriately assigned to clerical staff.** A major finding in this study is that the sporadic nature of dispatch activities – plus the need to staff dispatch operations at a level that can handle major emergencies – produces considerable additional workload capacity for dispatchers that has been filled with non-dispatch administrative tasks. Given the nature of those tasks and the higher pay provided to dispatchers than clerical staff, a review may be in order to determine the cost effectiveness of this approach.

In the end, the question of whether to pursue an independent consolidated dispatch center – or to jointly contract for this service with a different jurisdiction – must be considered within the context of each city’s short-term and long-term financial circumstances and public safety needs. An additional consideration is whether the cities may wish to pursue additional public safety consolidation, which may further dictate the logic of consolidating dispatch services. The Public Policy Forum’s analysis of possibilities for consolidating fire and EMS services among the three municipalities will be completed later in 2012 or early in 2013 and will shed further insight into that question.



APPENDIX A: SOUTHSORE DISPATCH STUDY

2002 RCC Study Comparative Data

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Task	Task Time / Multiplier		Calculations		Minutes
Police Statistics					
1 Phone Calls		Multiply by 2.00	144,658		
2 Phone Time		Multiply by 0.75	12.39	minutes per hour	12.39
3 Radio Messages		Multiply by 3.50	253,152		
4 Radio Time		Multiply by 0.25	7.22	minutes per hour	7.22
Fire Statistics					
5 Phone Calls		Multiply by 3.00	4,065		
6 Phone Time		Multiply by 0.75	0.35	minutes per hour	0.35
7 Radio Messages		Multiply by 12.00	16,260		
8 Radio Time		Multiply by 0.25	0.46	minutes per hour	0.46
EMS Statistics					
9 Phone Calls		Multiply by 1.50	8,606		
10 Phone Time		Multiply by 0.50	0.49	minutes per hour	0.49
11 Radio Messages		Multiply by 6.00	34,422		
12 Radio Time		Multiply by 0.25	0.98	minutes per hour	0.98
13 Pre-arrival Instructions		Multiply by 0.06	316		
14 Pre-arrival Phone Time		Multiply by 4.00	0.14	minutes per hour	0.14
TIME Statistics					
15 TIME Messages		Multiply by 0.50	36,165		
16 Computer Time		Multiply by 4.00	16.51	minutes per hour	16.51
Administrative Phone Call Statistics					
17 Phone Calls		Multiply by 4.00	317,684		
18 Phone Time		Multiply by 0.75	27.2	minutes per hour	27.20
Non-Incident Radio Traffic Statistics					
19 Radio Messages		Multiply by 2.00	158,842		
20 Radio Time		Multiply by 0.25	4.53	minutes per hour	4.53
MDC/Nextel Traffic Statistics					
21 Phone Calls		Multiply by 2.00	158,842		
22 Phone Time		Multiply by 0.25	4.53	minutes per hour	4.53
Security Camera Statistics					
23 Monitor Time		Multiply by 0.08	5.00	minute per hour	5.00
Research Request Statistics					
24 Radio Messages		Multiply by 1.00	79,421		
25 Radio Time		Multiply by 0.25	2.27	minutes per hour	2.27
Create Edit CAD Calls Statistics					
26 Radio Messages		Multiply by 2.16	171,549		
27 Radio Time		Multiply by 0.50	9.79	minutes per hour	9.79
Minutes Per Hour					
28 Police Radio	7.22	TIME Radio Computer	16.51		
29 Police Phone	12.39	Administrative Calls	27.20		
30 Fire Radio	0.46	Non-incident Radio	4.53		
31 Fire Phone	0.35	MDC/Nextel Phone	4.53		
32 EMS Radio	0.98	Security Viewing	5.00		
33 EMS Phone	0.49	Research Requests	2.27		
34 EMS Pre-arrival	0.14	CAD Create/Editing	9.79		
		Total	91.88		
Dispatchers					
35	3 per hour	1 per hour			
36	45.94% of time utilized	153.13% of time utilized			

