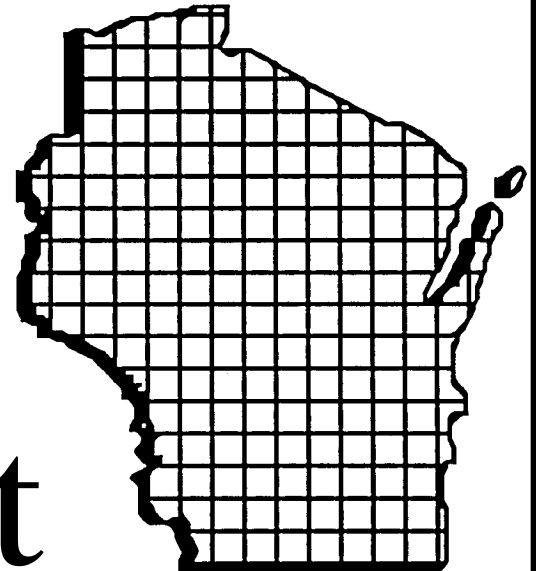


Wisconsin

Policy
Research
Institute

Report



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**Consolidating Dane
County Law
Enforcement
Agencies**

*An Examination of Potential
Cost Savings*

REPORT FROM THE PRESIDENT:

As Wisconsin's deficit sweeps across the political plain, it is apparent that the time to examine savings in local government is becoming critical. Last year we contracted with Dennis Winters to research the potential cost savings of combining and coordinating law enforcement agencies and services in Dane County.

Winters is Vice President and Director of Research for NorthStar Economics, Inc. He has been involved in numerous economic studies in the past and was the lead author of the University of Wisconsin project, *Wisconsin's Economy in the Year 2010*. We chose Dane County because of the ability of the author to obtain data to construct a model examining local law enforcement agencies.

This study focuses on quantitative data. It acknowledges the qualitative importance of law enforcement services but makes no judgments on policing policy. After examining all the financial parameters of the law enforcement agencies, Winters' model suggests a potential savings of \$6.4 million in the total cost of law enforcement in Dane County. His suggestion is that the whole issue of combining law enforcement services should be debated.

It is also important to point out that if cost savings are available in law enforcement, other government services in Dane County should also be scrutinized. There is no reason to believe that just law enforcement could produce cost savings among all the multi-tiered layers of government services throughout the county. In addition, what is true for Dane County is certainly going to be true for other large counties across Wisconsin, including Milwaukee and Brown.

This is the year where taxpayers are going to demand better value for their money. If integrating services such as law enforcement can produce savings, now is the time to seriously debate and move to implement these kinds of programs.

Finally, we would like to thank the Norman Bassett Foundation for their support of this project.



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CONSOLIDATING DANE COUNTY LAW ENFORCEMENT AGENCIES

An Examination of Potential Cost Savings

DENNIS K. WINTERS

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EXECUTIVE SUMMARY

Wisconsin has consistently ranked in the top five states regarding state and local tax burden for most of the last thirty years. High taxes have become a recognized workforce policy issue. Reducing Wisconsin's tax burden is one of Governor McCallum's primary policy objectives. The Governor has stated numerous times that he wants to take Wisconsin "out of the top five" high tax states and then "out of the top ten."

To accomplish such a feat will require initiatives at not only the state level, but also at the local level. One idea that gets discussed intermittently is that of combining services at the county level. For example, some municipalities are working to coordinate health and social services to reduce costs while maintaining an acceptable level of services. Local law enforcement services are also an item that should be considered for cutting costs through economies of scale, efficiency of services, and quality of service gains. This study analyzes the costs of law enforcement services in Dane County to determine potential cost savings from coordination and combination of law enforcement services in the county.

There are twenty-five law enforcement agencies in Dane County serving sixty governmental entities. On the one hand, local police departments have duplicate support services that could be leveraged to save precious resources for the county, cities, towns and villages of Dane County. On the other hand, the overall quality of law enforcement services across the county can be made more consistent.

Relative levels of law enforcement coverage can be compared when the data are broken down across jurisdictions by common demographic and cost considerations. Two comparisons were made across Dane County law enforcement agencies to determine the relative law enforcement service levels: 1) officers per capita, and 2) expenditures per officer.

The Madison Police Department (MPD) and the Dane County Regional Planning Commission recommend a sworn officer-to-population ratio of 1.80 per 1000 population as adequate police protection. The average sworn officer to population ratio in Dane County is 1.78. The value of this measure for Dane County municipalities ranges from 3.73 sworn officers for Maple Bluff Village to 1.07 for Deerfield.

The average cost per sworn officer in Dane County is \$78,836. The values of this measure range from \$110,119 for the University of Wisconsin-Madison Police Department (UWPD) to \$50,297 for the village of Black Earth.

An adequate law enforcement coverage cost model (ACCM) was constructed to simulate law enforcement costs across Dane County law enforcement agencies. Law enforcement coverage of 1.80 officers per 1000 population and per-officer costs of \$88,000 were chosen as the ACCM coefficients. The input variable is population. The output variable is total costs.

Implied cost savings range from a negative \$1.2 million to a positive \$6.4 million. The largest potential cost savings occurred in the largest law enforcement agencies, Madison Police Department (\$4.0 million), Dane County Sheriff's Office (DCSO) (\$2.3 million), and the University of Wisconsin-Madison (\$0.5 million). The savings for the MPD and University of Wisconsin-Madison were generated by reductions in their relatively high per-officer costs. The DCSO savings were a result of decrease in officers per 1000 population coverage.

Under ACCM assumptions, Dane County towns would save \$329,075. Villages would require an additional \$1.2 million in law enforcement spending. Cities would see a cost savings almost \$4 million dollars.

Redundant emergency dispatch centers throughout the county cost over \$1 million. There are twenty-three Dane County law enforcement agencies that use the Dane County Public Safety Communications Center (DCCC). However, Fitchburg, Middleton, Monona, Sun Prairie, Stoughton, the UWPD, and the Wisconsin Capitol Police Department (WCPD) all have their own dispatch centers.

Table 1 presents the ACCM model simulations reported in this study.

Clearly, \$6.4 million dollars is a large figure. The primary components of these cost savings are: 1) officer costs for the MPD, 2) staffing levels at the DCSO, and 3) redundant dispatch services. Taken in the context of total Dane County law enforcement costs of \$88 million (not including the WCPD), the \$6.4 million dollar figure amounts to over seven percent.

Perhaps, the high per-officer costs of the MPD and the UWPD are justified by the high-density areas they serve, but their cost structures should be reviewed in relation to other law enforcement agency costs. Similarly, the personnel structure of the DCSO may be necessary to serve its sparsely populated territory, but its management and support

TABLE 1 ADEQUATE COST COVERAGE MODEL SIMULATION RESULTS

Simulation*	Net Savings	Dispatch Savings	Total Savings
Town @ \$88K	\$329,075	\$0	\$329,075
Villages Only @ \$88K	(1,219,446)	0	(1,219,446)
Villages Only @ \$72K	287,164	0	287,164
Cities Only @ \$88K	3,323,319	699,979	4,023,298
Cities Only @ \$84K, w/o Madison	(104,478)	699,979	595,501
Town, Villages & Cities @ \$88K	2,432,948	699,979	3,132,927
DCSO @ \$88K	2,339,820	0	2,339,820
UWPD @ \$88K @ 1.35 coverage	313,475	150,000	463,475
All Dane County @ \$88K**	\$5,086,243	\$1,290,364	\$6,376,607

* simulation coverage parameter is 1.80 officers per 1000 population unless otherwise indicated

** includes UWPD at 1.35 coverage and eliminates WCPD dispatch

structure may be large in relation to other agencies. The existence of the WCPD, at \$5.3 million, should be reviewed for outsourcing its duties to other law enforcement agencies. Dane County cities other than Madison need to review the redundant dispatch services they support for a potential combined savings of almost \$700,000. On the other hand, it becomes readily apparent that Dane County villages need and value higher quality law enforcement services.

Looked at in another way, at \$88,000 dollars per officer, \$6.4 million dollars could put another 73 sworn law enforcement personnel on the beat. That amounts to more than the entire combined police forces of the two largest cities in Dane County outside Madison, serving approximately 38,000 people.

While policy makers across Dane County may argue with great merit the validity of the cost and coverage assumptions in this study and the perils of altering the current law enforcement structure, six million dollars in savings suggest that serious discussion should take place about ways in which to lower the cost and raise the quality of law enforcement services in the county.

Preface

This study was undertaken with the purpose of exploring potential cost savings in law enforcement services in Dane County. As such, the author is obliged to consider the impacts of varying cost and management structures across the law enforcement agencies serving Dane County. There is no intention to advise on policing policy. The information gathered on the scope of the duties and responsibilities performed by the Dane County law enforcement agencies reveals a complex set of policy issues that are beyond the scope of this economic study.

The most difficult task in this study was to develop a consistent data set across the county's twenty-five law enforcement agencies that allowed an honest assessment of comparable service and support levels. The author believes this was accomplished, but acknowledges there remain nuances that affect each law enforcement agency.

INTRODUCTION

Wisconsin has consistently ranked in the top five states regarding state and local tax burden for most of the last thirty years. High tax burdens serve as a disincentive for Wisconsin's citizens to remain in the state and for attracting people from other states. With critical labor shortages in Wisconsin being a chronic problem during the 1990s, high taxes have become a recognized workforce policy issue. Reducing Wisconsin's tax burden is one of Governor McCallum's primary policy objectives. The Governor has stated numerous times that he wants to take Wisconsin "out of the top five" high tax states and then "out of the top ten."

To accomplish such a feat will require initiatives at not only the state level, but also at the local level. One idea that gets discussed intermittently is that of combining public services at the county level. For example, some municipalities are working to coordinate health and social services to reduce costs while maintaining an acceptable level of services.

Another local service that should be considered for economies of scale, efficiency of service, and quality of service is law enforcement. There are twenty-five law enforcement agencies in Dane County serving sixty governmental entities. The special police agencies, such as the University of Wisconsin-Madison Police and the Wisconsin Capitol Police, are included in this count. Federal law enforcement agencies residing in the county are not part of this study. This study analyzes the costs of law enforcement services in Dane County to determine potential cost savings from coordination and combination of law enforcement services in the county.

Local police departments have duplicate support services that could be leveraged to save precious resources for the county, cities, towns and villages of Dane County. Many local police departments have already combined some duties, such as emergency dispatch through the Dane County Public Safety Communications Center. However, several law enforcement entities still maintain their own dispatch centers, such as the Monona and University of Wisconsin-Madison Police Departments.

This paper assesses the current costs and potential savings that could be reaped if the county's law enforcement agencies were to better coordinate their personnel and better cooperate in supplying services to Dane County's communities and citizenry. All data are from the year 2000 unless otherwise noted.

METHODOLOGY

The basic analysis in this study focuses on the costs and coverage associated with law enforcement across the towns, villages and cities in Dane County. Comparative measures for population, number of law enforcement officers, and law enforcement costs are the first descriptive information presented. The data are then compared across relative law enforcement staffing levels in terms of officers per capita and expenditures per officer.

There are sixty governmental bodies in Dane County including the townships, villages, cities and the county itself. Thirty-four townships were identified in Dane County. There are also eighteen villages and seven cities. Part of the village of Belleville and the city of Edgerton lay in Dane County. Edgerton residents in Dane County were excluded from the analysis without influencing the outcome, as their size (42 people) is small.

The numerous Dane County municipalities are mixed with respect to law enforcement service levels. Most towns rely on the Dane County Sheriff's Office (DCSO) for law enforcement services. The villages and cities provide their own law enforcement services. Most villages rely upon the DCSO for back-up and support services beyond the local police departments' capabilities to handle a given situation, such as forensic lab analysis or complex detective investigations. There is usually some overlap in professional assistance across municipal borders on issues such as crowd control, which require a greater concentration of law enforcement personnel.

Data

Compiling a consistent set of data for this analysis was challenging and time consuming. Data on law enforcement personnel and expenditures came from various sources and seldom matched or reconciled across agencies, governing bodies, reporting forms, or publications. The data are so disparate and dependent upon local characteristics that even the Federal Bureau of Investigation warns against comparing law enforcement and crime data across juris-

dictions. The FBI highlights concerns about varying demographic traits, such as population density and degree of urbanization, share of youth population, transportation systems, personal income levels, education and economic base. Other local influences include commuting patterns, family cohesiveness, religious traits and even climate. Citizens' attitudes about crime and law enforcement priorities also influence data collection and reporting.

Law Enforcement Coverage Data

Law enforcement coverage data reported at the national and regional level for 1999 display a wide range of values. Law enforcement data broken out by geographical region and by city size show variation across the categories. For example, the average U.S. number of sworn officers per 1000 residents is 2.4. It is as low as 1.7 for the Pacific states of Hawaii and Alaska and as high as 3.1 for the Middle Atlantic states of New York, New Jersey and Pennsylvania. The Midwest average is 2.2 officers per 1000 population, with the East North Central states, including Wisconsin, Illinois, Indiana, Michigan, and Ohio, averaging 2.4 officers per 1000 population.

Wisconsin averages 2.2 officers per 1000 residents, placing it toward the low end of state averages. For example, sworn officer coverage per 1000 residents at the state level ranges from 1.6 in Vermont to 3.9 in New York. The Wisconsin and New York average are heavily influenced by each state's largest city. Milwaukee police coverage is 3.5 officers per 1000 residents; New York City is 5.3.

Sworn officers per capita are not necessarily correlated with population. While cities over 250,000 population have, on average, higher law enforcement coverage ratios, there is a wide range in those ratios. New York City has a high ratio of officers per resident. Los Angeles police coverage is about half, at 2.7. San Diego, at 1.2 million people, has 1.7 sworn officers per 1000 population. Cities about the size of Milwaukee, at roughly 600,000 residents and 3.5 sworn officers per 1000 residents, report officer coverage anywhere from 4.4 for Baltimore (population 675,401) to 1.4 for Indianapolis (population 746,737).

Cities with populations between 100,000 and 250,000, the category in which Madison falls, report officer coverage from 1.1 for Huntington Beach, CA, (population 190,751) to 3.9 for Jersey City, NJ (population 229,039). Madison police coverage was reported at 1.9 officers per 1000 residents in 1999. Average coverage ratios are generally higher in the northeast (2.9), and lower in the west (1.4).

Law enforcement coverage in cities with populations between 10,000 and 100,000 are, on average, generally similar to cities above 100,000 in the same geographical area. The police coverage range in this category also varies by geography, from 2.7 in the northeast and south to 1.4 in the west.

Law enforcement coverage is not correlated evenly with population. Law enforcement coverage increases dramatically across all geographic regions in cities with populations below 10,000. The national average police coverage in this population category is 3.2, higher even than the largest cities category of 3.1. The South rates highest in the small city category with 4.4 sworn officers per resident, while the Northeast is the lowest at 2.3. The Midwest rates 2.6 and the west 3.3.

Nor is law enforcement coverage necessarily correlated with crime rates. Sampling at the state level presents the disparities. Georgia has one of the highest crime rates in the country, 52 crimes per 1000 population. Its police coverage is 2.3 sworn officers per 1000 population. This compares to New York with 33 crimes per 1000 population and a law enforcement coverage ratio of 3.9. Wisconsin registered 33 crimes per 1000 population with a coverage ratio of 2.2. Missouri registered 46 crimes per 1000 residents, but just a 2.1 coverage ratio. Minnesota had a 36 crime ratio and a 1.6 coverage ratio.

TABLE 2 SELECTED STATE CRIME RATES AND POLICE COVERAGE

State	Crime Rate per 1000 population	Sworn Officer Coverage per 1000 Population
Georgia	52	2.3
New York	33	3.9
Wisconsin	33	2.2
Missouri	46	2.1
Minnesota	36	1.6

Statistics within Wisconsin and Dane County show similar differences, although perhaps to a lesser degree. Milwaukee has the highest crime rate with 80 crimes per 1000 population recorded in 1999. Its police coverage rate is 3.5 sworn officers per 1000 population. Madison's crime rate was 37 per 1000 residents with 1.9 coverage ratio. Green Bay's crime rate is higher, 43 per 1000 residents, but its coverage is the same at 1.9. On the other hand,

Sun Prairie crime rate is relatively low, under 20 per 1000 people, but its coverage ratio is slightly higher, at 2.0 sworn officers per 1000 residents. Stoughton has a crime rate recorded at 22 per 1,000, with a low 1.6 law enforcement coverage ratio.

Data on sheriff's offices are even less quantifiable at the regional level as the data are aggregated only on a national and local basis. Reported data for local sheriff offices use total county residents as the population-served even if that figure is identical to the local police department figure. As a result, the sheriff office coverage ratio is usually very low, often well under one deputy per 1000 residents, making the data incomparable to police department coverage data.

TABLE 3 SELECTED WISCONSIN CITY CRIME RATES AND POLICE COVERAGE

City	Crime Rate per 1000 population	Sworn Officer Coverage per 1000 Population
Milwaukee	80	3.5
Madison	37	1.9
Green Bay	43	1.9
Sun Prairie	20	2.0

Expenditure Data

Data on law enforcement expenditures is much less detailed than the coverage data. Average operating expenditures of local police departments was presented in aggregate form by population-served categories. The operating expenditures do not include capital expenditures for equipment purchases or construction costs. The latest national data available are for 1997.

Average operating cost per sworn officer for the nation is \$67,100 per year. For cities with populations between 100,000 and 250,000, the average operating cost per sworn officer is \$77,900 per year. It costs cities with populations between 10,000 and 99,999 residents \$60,600 per year, on average, for each sworn officer. Cities with populations between 2,500 and 10,000 expend \$49,900 on operating costs per officer. Cities under 2,500 pay \$33,200 on average per officer.

The point of the above presentation is that crime statistics are notoriously disparate and influenced by a myriad of factors that make direct comparisons difficult at best, misleading at worst. That is why the FBI warns of drawing inferences from the reported data.

Nevertheless, attempts were made to rectify local data to make relevant comparisons within Dane County, assuming that the limited demographic and geographic bounds reduced the variability of data influences. Statistics on local law enforcement agencies were gathered and attempts to verify the data with the local law enforcement agencies were made through on-line searches and telephone calls.

Interviews with police departments across the county showed little consistency with the numbers reported on government forms, even when the person interviewed was the same person filling out the forms. In fairness, accounting structures are designed differently to serve different management structures. For example, the MPD reports by District with each district having some of its own support services. DCSO, on the other hand, reports by Division, where demarcations are made by operation instead of by territory. Also, law enforcement staffing in any particular village or city may vary from time to time. Many officers serve in part-time positions and work for more than one law enforcement agency.

TABLE 4 AVERAGE OPERATING COST PER SWORN OFFICER BY CITY POPULATION

City Population	Average Operating Cost per Sworn Officer
All Sizes	\$67,100
100,000 to 249,999	77,900
10,000 to 99,999	60,600
2,500 to 9,999	49,900
Less than 2,500	33,200

Source: Sourcebook of Criminal Justice Statistics, 2000, Table 1.46, page 42

Apples and Oranges

Comparing law enforcement agency statistics across Dane County is a complex problem. Difficult as it is to compile a consistent set of cost and personnel data, the task is further complicated by the differences in tasks and duties performed by the different law enforcement agencies for their communities.

For example, the town of Albion employs a part-time constable to enforce local ordinances while law enforcement officers for villages such as Cross Plains serve primarily for community patrol and policing activity. Contrast those activities with those of the Madison Police Department that patrols thirty square miles of territory, deals with a relatively large share of serious and violent crime, conducts detective services, and maintains an evidence room and forensic lab. While the Dane County Sheriff's Office serves in many of the same roles as the Madison Police Department, the Sheriff's Office patrols a largely rural landscape. It also runs the Dane County jail. In fact, the largest division within the DCSO is the Security Division that operates the jail. It is necessary, therefore, to separate out like and unlike duties across the law enforcement agencies in the county to get meaningful comparisons.

Apples to Apples

Comparative measurement differences will occur due to the differences in the tasks and duties of the agencies. For example, DCSO mostly patrols rural and sparsely populated areas, while the MPD is responsible for law enforcement in a fairly large and densely populated city. The comparative analysis done across Dane County's towns, villages, cities should shed light on those varied responsibilities. However, those comparisons will also enlighten cost incongruities and differing service levels.

Population, law enforcement officer, and law enforcement expenditure data were collected from various sources. Population data were taken from the 2000 census (U.S. Bureau of the Census). Population assignments for the cities, towns and villages are directly applied for corresponding police departments. Population figures credited to DCSO patrol territory are calculated as the difference between the total Dane County population and the sum of all the cities, towns and villages that supply their own law enforcement coverage.

The final set of personnel data was taken from Table 9 of the Full-time Law Enforcement Employees, 2000 (from the *Crime and Arrests in Wisconsin* report in the Statistical Analysis Center of the Uniform Crime Reporting Program of the Wisconsin Office of Justice Assistance - yet unpublished). Expenditure data were drawn from the Wisconsin Taxpayers Alliance data records with the ultimate source being line #12052100 entries for the annual financial report form schedule(s) A, B and C for the Bureau of Local Financial Assistance in the Division of State and Local Finance in the Wisconsin Department of Revenue. These two sources were reconciled for reporting municipal entities, population, number of sworn law enforcement personnel, expenditures and year (2000). In this manner, direct comparisons can be made between staffing levels and costs.

Unique to the DCSO is the jail. The jail activities of the DCSO are taken out of the comparative analysis of county law enforcement agencies to eliminate this unique function, keeping comparable tasks consistent across county law enforcement agencies. The Dane County jail employed 225 personnel in 2000, 171 of who were sworn officers and 54 civilian staff. The modified budget for the Security Services Division of the DCSO amounted to \$21,100,288 in 2000, more than double the largest expenditure of any other DCSO division.

DCSO has an Executive Division that administers the office and a Support Services Division that maintains all the equipment and vehicles used by the DCSO. The Field Services Division is the entity that patrols the county and provides investigative services. This division is the most aligned with the services provided by the other law enforcement agencies in the towns, villages and cities of Dane County.

The Executive and Support Services Divisions support the Field Services Division and the Security Services Division. If you prorate the DCSO Executive and Support Services divisions by the number of sworn officers in the Field Services Division (104) and the Security Services Division (171), the number of Executive and Support Services officers inferred to support the Field Services Division is 41. Adding in those 41 deputies, the DCSO officers assigned in this study to field service type law enforcement across Dane County is 145.

The analysis conducted below is based upon the data sets described above.

Population

Madison is the largest city in Dane County with a population of 207,248 out of the total county population of 418,640, according to the 2000 Census. This is the first census in which Madison has less than half of the county's

population. The second largest city in Dane County is Sun Prairie, followed by Fitchburg, Middleton, Stoughton, Monona and Verona. Population coverage accredited to the DCSO in this study is 65,966. This figure is obtained by subtracting the populations of all the cities and villages from the Dane County total population. The University of Wisconsin-Madison has about 40,000 students, making it the second largest concentrated population in Dane County during the academic year.

TABLE 5 LAW ENFORCEMENT AGENCY POPULATION COVERAGE

Municipality	Population*
Madison city	207,248
Sun Prairie city	19,987
Fitchburg city	18,925
Middleton city	16,129
Stoughton city	11,136
Monona city	8,671
Waunakee village	8,491
Verona city	6,954
Oregon village	6,770
DeForest village	6,656
Madison town	6,611
McFarland village	6,321
Mount Horeb village	5,368
Marshall village	3,017
Cross Plains village	2,984
Cottage Grove village	2,958
Belleville village	1,911
Deerfield village	1,867
Shorewood Hills village	1,659
Mazomanie village	1,518
Black Earth village	1,369
Maple Bluff village	1,339
Sheriff's Office	65,996
UW	40,000

* data from Wisconsin Office of Justice Assistance, based upon 2000 census

Note: Not even the population figures for the county match across state reporting entities even though they all claim the 2000 Census as the source. As a result, the population accredited to the DCSO differs across reporting entities. Our calculations for DCSO population coverage is 65,966. This is the difference between 418,064 and the sum of the municipal populations that have their own police departments, 352,644. This figure is about midway between the 66,440 figure generated by the Office of Justice Assistance and the 64,857 figure given by the DCSO.

Sworn Law Enforcement Officers

The Madison Police Department is the largest law enforcement agency with 367 commissioned personnel. For the comparative analysis, presented below, DCSSO is the second largest law enforcement agency in the county. The WCPD actually ranks third in the number of law enforcement officers with 49. The UWPD ranks fourth with 46 law enforcement officers. The remaining cities and villages staff much smaller police departments, from 39 for Sun Prairie to two sworn officers for Deerfield.

TABLE 6 LAW ENFORCEMENT AGENCY SWORN OFFICERS

Municipality	Sworn Officers
Madison city	367
Sheriff's Office	145
Wisconsin Capitol PD	49
UWPD	46
Sun Prairie city	39
Fitchburg city	29
Middleton city	28
Monona city	19
Stoughton city	18
Madison town	16
Waunakee village	13
Verona city	13
Oregon village	13
DeForest village	11
McFarland village	11
Mount Horeb village	10
Cottage Grove village	8
Marshall village	6
Maple Bluff village	6
Shorewood Hills village	5
Cross Plains village	4
Belleville village	3
Black Earth village	3
Mazomanie village	3
Deerfield village	2

Expenditures

Expenditures are directly correlated with the size of the law enforcement agency, as is expected. The MPD has the largest budget, spending \$36.8 million in 2000. DCSO was second in expenditures with \$20.1 million, not counting the \$21.1 million for the Security Services Division (the jail). The remaining cities spent dramatically less due to their small populations and relatively small number of officers. The UWPD and the WCPD rank among the largest law enforcement budgets in Dane County.

TABLE 7 LAW ENFORCEMENT AGENCY EXPENDITURES, 2000

Law Enforcement Agency	Expenditures
Madison	\$36,843,088
Sheriff's Office*	12,793,587
Wisconsin Capitol Police	5,300,000
UW Police	5,065,475
Sun Prairie	3,464,277
Fitchburg	2,533,605
Middleton	2,326,775
Stoughton	1,650,358
Madison town	1,376,257
Monona city	1,327,612
DeForest village	1,062,100
Waunakee village	963,490
Verona city	963,124
Oregon village	877,837
McFarland village	842,758
Mount Horeb village	675,733
Cottage Grove village	499,022
Shorewood Hills village	413,181
Marshall village	385,143
Maple Bluff village	322,986
Cross Plains village	303,469
Belleville village	209,852
Mazomanie village	173,982
Deerfield village	173,024
Black Earth village	150,892

* Field Services and assigned Executive and Support Service deputies

LAW ENFORCEMENT AGENCY COMPARISONS

There are twenty-five law enforcement agencies in Dane County serving 418,640 residents scattered across the county's seven cities, eighteen villages and thirty-four towns. The University of Wisconsin-Madison Police and the Wisconsin Capitol Police are included in this count.

Town Police Departments

Only one town in Dane County maintains its own police department, the Town of Madison. The Town of Madison has a police force of sixteen sworn officers to serve a population of 6611, giving it a relatively high officer to population ratio of 2.42. The remaining 33 townships depend upon the DCSO for law enforcement services. The towns of Burke, Blooming Grove, Dunn, Middleton and Windsor contract with DCSO on a limited basis for additional coverage.

Village Police Departments

There are eighteen villages in Dane County with all but four staffing their own police departments. Of those four, two staff no law enforcement officers and two contract with the DCSO for law enforcement services.

TABLE 8 DANE COUNTY VILLAGE STATISTICS

Village	Population	Sworn Officers	Officers per 1000 Population
Waunakee	8,491	13	1.53
Oregon	6,770	13	1.92
DeForest	6,656	11	1.65
McFarland	6,321	11	1.74
Mount Horeb	5,368	10	1.86
Marshall	3,017	6	1.99
Cross Plains	2,984	4	1.34
Cottage Grove	2,958	8	2.70

Waunakee is the largest village in Dane County with a population of 8491. Oregon is the second largest village with 6770 people. Following in close order in population are the villages of DeForest (6656) and McFarland (6321). The remaining villages have populations ranging from 5368 in Mount Horeb to Rockdale with just 229 residents.

Waunakee staffed a police department with thirteen sworn officers in 2000. Oregon's police department also had thirteen officers. DeForest and McFarland departments each had eleven officers, with Mount Horeb fielding ten. Above are the village statistics of the eight largest villages in Dane County — those with populations over 2000.

The three villages of Blue Mounds, Dane and Rockdale staff no police departments and depend upon the DCSO for police coverage. These three villages have small populations, 663, 771, and 229, respectively.

Two villages contract with the Dane County Sheriff's Office to supply police coverage, Cambridge (since 1999) and, just recently, Black Earth. More detail on these arrangements is presented in case studies later in this report.

City Police Departments

There are seven cities in Dane County, and each maintains its own police force. Madison is the largest city with a population of 207,248. The second largest city is Sun Prairie, followed in size of population by Fitchburg, Middleton, Stoughton, Monona and Verona.

The largest city police department in Dane County is the Madison Police Department with 367 commissioned personnel and 74 civilian personnel. It serves the City of Madison, providing patrolling, traffic, investigative, lab and other services.

TABLE 9 DANE COUNTY CITY STATISTICS

City	Population	Sworn Officers	Officers per 1000 Population
Madison	207,248	367	1.77
Sun Prairie	19,987	39	1.95
Fitchburg	18,925	29	1.53
Middleton	16,129	28	1.74
Stoughton	11,136	18	1.62
Monona	8,671	19	2.19
Verona	6,954	13	1.87

The other Dane County cities have much smaller law enforcement contingents. Sun Prairie, Middleton and Fitchburg staff 39, 29, and 28 sworn officers, respectively. Monona's Police Department has nineteen sworn police officers. Stoughton has eighteen police officers. Verona has thirteen officers.

Dane County Sheriff's Office

The DCSO is a comprehensive law enforcement agency with respect to patrolling, investigative services, and jailing. In fact, it serves as back up support for all the county's independent law enforcement agencies and is required to serve all county residents. The Field Services division is the arm that serves the patrol function of the DCSO. This is the division that is most comparable to the duties and functions of the other police departments in Dane County. Based upon assigned personnel presented above, DCSO has 145 sworn deputies that serve 65,996 people for an officer-to-population ratio of 2.2.

Other Law Enforcement Agencies

The University Police is charged with policing the University of Wisconsin-Madison campus. The campus population numbers about 40,000 students during the academic year. The UWPD police number 46 officers according to the Office of Justice Assistance (the UWPD 2000 Annual Report lists 51 authorized officers including the chief), yielding a coverage ratio of 1.15.

The WCPD has 49 officers on staff. The WCPD is primarily responsible for protecting the Governor and other state officials. Their function is to patrol the Capitol building and other state government buildings and offices. It is often necessary for WCPD officers to travel throughout the state, the country, and occasionally internationally depending upon the itinerary of state officials. In addition, the WCPD is responsible for enforcement on the State Fair Grounds in Milwaukee County, and it maintains a satellite office there. No population is assigned to the WCPD in this analysis.

LAW ENFORCEMENT COVERAGE COMPARISONS

Relative levels of law enforcement coverage can be compared when the data are broken down across jurisdictions by common denominators. Relating law enforcement personnel to population yields one comparative measure of law enforcement service levels. Dividing the number of sworn officers by costs provides another comparison.

Two comparisons were made across Dane County law enforcement agencies to determine the relative law enforcement service levels: 1) officers per capita, and 2) law enforcement expenditures per officer.

Sworn Officers per Capita

This measure is actually the number of sworn officers per 1000 population. The metric is a standard industry measure. In this study, this measure includes only those municipalities that registered a standing sworn staff and a population. None of the towns except the Town of Madison staff law enforcement officers, depending instead upon the DCSO for services. The WCPD police were not assigned a population for this analysis.

The Madison Police Department and the Dane County Regional Planning Commission recommend a sworn officer to population ratio of 1.80 as adequate police protection. This figure is consistent with national and regional figures given Dane County's demographic and geographic characteristics. The average sworn officer to population ratio in Dane County is 1.89, if you include the forty-nine WCPD officers, and 1.78 if you do not.

The value of this measure for Dane County municipalities ranges from 3.73 sworn officers per 1000 population for the Village of Maple Bluff to 1.07 for the Deerfield. The Town of Madison ranks fourth on the list with 2.42 officers per 1000 population. DCSO ranks in the top five with a 2.20 ratio. Municipalities at the lower end of law enforcement coverage spectrum are Fitchburg and Waunakee with ratios of 1.53, Cross Plains at 1.34, and Deerfield at 1.07.

On the whole, villages carry the highest level of law enforcement coverage by population. This is consistent with national data. Eight of the fourteen staffed villages in Dane County rank in the top fourteen municipalities for officer coverage per 1000 population. Part of the issue is that villages have smaller populations than the cities, and a change in one sworn officer can change the ratio significantly.

For example, if Maple Bluff had four officers instead of five, their officer-to-population ration would fall to 2.99. Marshall, Mazomanie and Mount Horeb would all drop below the 1.80 ratio with a one-officer reduction in staff.

Using the Regional Planning Commission figure of 1.80 sworn officers to 1000 population as the benchmark for adequate police protection, three villages support 50% more law enforcement coverage than deemed necessary, Cottage Grove, Maple Bluff and Shorewood Hills.

On the other hand, Fitchburg, Waunakee and Cross Plains have some 15% less coverage than suggested. The adequate protection curve is skewed to the high side, as thirteen of the twenty-three departments carry more than the recommended coverage, with an average of 2.37 sworn officers per 1000 population, 32% above the recommended coverage. The nine lower-ranked municipalities, not including the UWPD, averaged only 1.61 officers per 1000 population, 9% below coverage recommendations and less than half the higher tier average.

Expenditures per Officer

The measure for expenditures per-officer begins to show some relative differences in the service levels provided by the various law enforcement agencies in the county. While Maple Bluff and Shorewood Hills ranked at the top of the previous two measures, they fall well down the list for expenditures per officer. On the other hand, the UWPD, the WCPD and the MPD rank one, two, three, respectively. The DCSO ranks seventh, behind Deforest, Stoughton and Sun Prairie.

The average cost per sworn officer in Dane County is \$78,836. The median cost is \$75,867. The UWPD spent \$110,119 per-officer in 2000, even though they employ few officers per capita (estimated student population of 40,000). The WCPD spent \$108,163 per-officer (with no applicable population). The MPD spent \$100,163 for each officer, while each DCSO deputy cost \$88,232 on average. Maple Bluff and Shorewood Hills spent \$64,597 and \$68,864 per officer, respectively, well below the average.

TABLE 10 SWORN OFFICERS PER 1000 POPULATION

Municipality	Sworn Officers per 1000 Population
Maple Bluff village	3.73
Shorewood Hills village	3.62
Cottage Grove village	2.70
Madison town	2.42
Sheriff's Office*	2.20
Black Earth village	2.19
Monona city	2.19
Marshall village	1.99
Mazomanie village	1.98
Sun Prairie city	1.95
Oregon village	1.92
Verona city	1.87
Mount Horeb village	1.86
Madison city	1.77
McFarland village	1.74
Middleton city	1.74
DeForest village	1.65
Stoughton city	1.62
Belleville village	1.57
Fitchburg city	1.53
Waunakee village	1.53
Cross Plains village	1.34
UW	1.15
Deerfield village	1.07

* Field Services and assigned Executive and Support Service deputies

TABLE 11 EXPENDITURES PER SWORN LAW ENFORCEMENT OFFICER

Municipality	Expenditures per Officer
UW	\$110,119
Wisconsin Capitol	108,163
Madison city	100,390
DeForest village	96,555
Stoughton city	91,687
Sun Prairie city	88,828
Sheriff's Office	88,232
Fitchburg city	87,366
Madison town	86,016
Middleton city	83,099
McFarland village	76,614
Cross Plains village	75,867
Waunakee village	74,115
Verona city	74,086
Belleville village	69,951
Monona city	69,874
Shorewood Hills village	68,864
Mount Horeb village	67,573
Oregon village	67,526
Maple Bluff village	64,597
Marshall village	64,191
Cottage Grove village	62,378
Mazomanie village	57,994
Black Earth village	50,297
Average	\$78,836

ADEQUATE LAW ENFORCEMENT COST AND COVERAGE MODEL

Assumptions about reasonable and adequate law enforcement cost and coverage parameters must be made in order to compare and analyze these data. In constructing the adequate law enforcement cost and coverage model (ACCM), base case parameters that represented recommended law enforcement coverage and costs were chosen that were indicative of local standards and consistent with national and regional values. The input variable is population. The output variable is total costs.

Parameter Assumptions

The Madison Police Department and the Dane County Regional Planning Commission established that 1.80 sworn officers per thousand population as adequate law enforcement coverage. This figure is consistent with national and regional data given local demographics and geographic influences.

Cost-per-officer parameters are required to complete the total cost calculation. Almost all towns' law enforcement is supplied by DCSO. DCSO has determined that it costs either \$65,000 and \$88,000 to staff each deputy. The \$65,000 cost-per-deputy figure is essentially the variable operating cost and is consistent with the average national figures presented above. The \$88,000 cost-per-deputy figure includes a deputy's salary, benefits, and support costs, plus the cost of the patrol vehicle, gasoline, insurance, liability coverage and all the detective, lab and evidence services provided by the DCSO.

DCSO deputies may be considered premium law enforcement personnel. Seventy percent of all DCSO deputies have a four-year college degree. The other thirty percent have at least a two-year college degree, a mandatory requirement for DCSO employment. DCSO deputies receive continuous training to stay current with the latest law enforcement tools and techniques.

Model Results

The premise of this analysis is that substantial cost savings can be reaped collectively by Dane County law enforcement agencies while maintaining a high level of service. The 1.80 officer-to-population coverage and the \$88,000 per-officer cost values used as the ACCM model base case parameters are consistent with national and regional figures and reflect local area characteristics.

Simulating the municipalities populations through the ACCM yields a recommended number of officers per municipality and the cost of staffing at that level. The ACCM parameters can be changed and simulated to determine total law enforcement cost under any cost and coverage assumptions. Several scenarios were run through the model to give a range of total costs for varying per-officer costs.

The cost model results for all towns and villages are presented below.

Towns

The only Dane County town that staffs its own police force is the Town of Madison. It has sixteen sworn staff for 6,611 residents. Currently, the Town of Madison has a 2.42 officers to 1000 population ratio and spends, on average, \$86,016 per officer. The model output suggests the Town of Madison should staff 11.9 officers. At \$88,000 per officer, the total ACCM cost equates to \$1,047,182. This compares to the 2000 law enforcement expenditure by the Town of Madison of \$1,376,257, a difference of \$329,075.

Note: If Dane County consolidated law enforcement agencies, fractions of officers could be supplied as the personnel resources are committed across the county. Communities that contract for DCSO services dictate the amount of law enforcement coverage they want (hours on duty,) and the DCSO calculates that coverage. The result is often a fraction of a regular full-time equivalent position, the remainder being applied elsewhere.

Villages

Fourteen out of the eighteen villages in Dane County staff their own police departments. Eight of the fourteen have law enforcement coverage at levels greater than the recommended 1.80 officer per 1000 population. Two cost scenarios were considered in the Village analysis: 1) base case cost and coverage parameters, and 2) average village cost parameters. The second cost scenario is run under the assumption that "small town" law enforcement requirements are less rigorous.

Running the village law enforcement staffing and expenditures through the ACCM model yields some interesting results. For example, most villages spend less money on average for more protection than the model would dictate. This is primarily the result of villages spending less than the \$88,000 per-officer average.

Dane County villages spend about 15% less than what the ACCM base case parameters would dictate. If all the villages in Dane County staffed law enforcement departments at the recommended rate of 1.80 officers per 1000 population and spent an average of \$88,000 per officer, their total costs would increase by over \$1.2 million.

A closer look at the results shows some interesting comparisons. Total law enforcement officers required under the cost model parameters are 94, a four-officer reduction from the current status. However, average village law enforcement expenditure per-officer is \$71,974. This is \$16,026 less than the \$88,000 model figure, or 18% smaller.

Only three villages, Cottage Grove, Maple Bluff and Shorewood Hills, would realize significant cost savings under the base case staffing parameters. This is due to large staff reductions offsetting higher costs per officer. DeForest would reap a slight savings due to a reduction in per-officer spending.

TABLE 12 ADEQUATE LAW ENFORCEMENT COVERAGE COST MODEL
Dane County Villages @ \$88,000 per officer

Village	Current Coverage	Current Expenditure	Suggested Coverage	Suggested Expenditure	Expenditure Difference
Belleville	3	\$209,852	3.44	\$302,702	\$(92,850)
Black Earth	3	150,892	2.46	216,850	(65,958)
Cottage Grove	8	499,022	5.32	468,547	30,475
Cross Plains	4	303,469	5.37	472,666	(169,197)
Deerfield	2	173,024	3.36	295,733	(122,709)
DeForest	11	1,062,100	11.98	1,054,310	7,790
Maple Bluff	5	322,986	2.41	212,098	110,888
Marshall	6	385,143	5.43	477,893	(92,750)
Mazomanie	3	173,982	2.73	240,451	(66,469)
McFarland	11	842,758	11.38	1,001,246	(158,488)
Mount Horeb	10	675,733	9.66	850,291	(174,558)
Oregon	13	877,837	12.19	1,072,368	(194,531)
Shorewood Hills	6	413,181	2.99	262,786	150,395
Waunakee	13	963,490	15.28	1,344,974	(381,484)
Total	98	\$7,053,469	94.0	\$8,272,915	\$(1,219,446)

All the other villages would face higher law enforcement bills under the base case parameters. Any reductions in suggested staffing levels were overcome by the higher costs per officer. It should be noted that most villages depend upon the DCSO for support when their staff is not on duty or in need of added assistance, but they do not pay DCSO directly for such coverage.

Average Village Cost Scenario

It may be argued that villages do not require the same level of law enforcement support services or as highly-trained a police force to serve their “small town” needs. (See Case Studies.) Budget constraints may also be the reason that villages have to limit law enforcement service levels. Taking these considerations into account, the ACCM parameters were adjusted and simulated.

The average annual per-officer cost for villages in Dane County is \$71,974. Using this average village per-officer cost as the model cost input rather than the \$88,000 figure used in the base case scenario, changes the output from a \$1.2 million dollar deficit to a \$287,164 surplus. This assumes the same officer-per-population ratio of 1.80 per thousand. The 2000 village average coverage ratio was 1.88 officers per 1000 population.

DeForest, Maple Bluff, Shorewood Hills and Cottage Grove would reap substantial cost savings under this costing scenario. DeForest’s savings come as a result of substantially lower average officer costs. Maple Bluff and Shorewood Hills garner savings due to staffing cuts. Cottage Grove’s savings are also due to reduced staffing levels.

TABLE 13 ADEQUATE LAW ENFORCEMENT COVERAGE COST MODEL
Dane County Villages @ \$71,974 per officer

Village	Current Coverage	Current Expenditure	Suggested Coverage	Suggested Expenditure	Expenditure Difference
Belleville	3	\$209,852	3.44	247,576	(37,724)
Black Earth	3	150,892	2.46	177,358	(26,466)
Cottage Grove	8	499,022	5.32	383,218	115,804
Cross Plains	4	303,469	5.37	386,587	(83,118)
Deerfield	2	173,024	3.36	241,876	(68,852)
DeForest	11	1,062,100	11.98	862,306	199,794
Maple Bluff	5	322,986	2.41	173,472	149,514
Marshall	6	385,143	5.43	390,862	(5,719)
Mazomanie	3	173,982	2.73	196,662	(22,680)
McFarland	11	842,758	11.38	818,906	23,852
Mount Horeb	10	675,733	9.66	695,442	(19,709)
Oregon	13	877,837	12.19	877,075	762
Shorewood Hills	6	413,181	2.99	214,929	198,252
Waunakee	13	963,490	15.28	1,100,036	(136,546)
Total	98	\$7,053,469	94.00	\$6,766,305	\$287,164

If DeForest is removed from the cost consideration as an outlier (at \$96,555 per-officer cost DeForest is almost \$20,000 dollars above the next ranking village of McFarland at \$76,614 per officer), the average village per-officer cost drops to \$66,866. If we substitute that cost figure into the model, the ACCM yields a potential total cost savings of \$579,349, with DeForest realizing almost half the gain, \$237,030.

Cities

Cities are grouped separately from villages because of their population size and density. Only the village of Waunakee, (population 8491) is larger than a city, that of Verona (population 6954). Cities employ most of the law enforcement personnel, 559 of the 881 standing sworn officers across Dane County. (The forty-six UWPD officers are not included in the 559 sworn officer count.) Two cost scenarios were run through the ACCM for cities, as was the case for the villages analysis.

Contrary to the village scenario, a very large net savings figure of \$3.3 million is generated when putting the cities' current law enforcement personnel and expenditure data through the ACCM model. The largest savings are generated by the MPD, at over \$4 million. The primary driver for the large cost savings by the MPD is the difference in the average expenditure per sworn officer. Substituting the model cost per-officer of \$88,000 for the current MPD per-officer expenditure of \$100,390 nets the large savings. Even though the model calls for more MPD sworn officers to adequately cover Madison's population (373 sworn officers versus the current staffing level of 367), the personnel expenditures greatly offsets the cost of the suggested personnel gain.

The cost model output for Sun Prairie also indicates potential cost savings of almost \$300,000. This is due primarily to a decrease in required sworn personnel per population from 39 officers to 36 officers. The \$88,828 Sun Prairie police department expenditure per-officer is very close to the model parameter of \$88,000.

All the other cities show expenditure increases in order to match the cost model parameters. This is mostly due to the increases in suggested, per-sworn-officer expenditures. Fitchburg is the only city with law enforcement cov-

TABLE 14 ADEQUATE LAW ENFORCEMENT COVERAGE COST MODEL
Dane County Cities @ \$88,000 per officer

City	Current Coverage	Current Expenditure	Suggested Coverage	Suggested Expenditure	Expenditure Difference
Fitchburg city	29	\$ 2,533,605	34.1	\$ 2,997,720	\$ (464,115)
Madison city	367	36,843,088	373.0	32,828,083	4,015,005
Middleton city	28	2,326,775	29.0	2,554,834	(228,059)
Monona city	19	1,327,612	15.6	1,373,486	(45,874)
Stoughton city	18	1,650,358	20.0	1,763,942	(113,584)
Sun Prairie city	39	3,464,277	36.0	3,165,941	298,336
Verona city	13	963,124	12.5	1,101,514	(138,390)
Total	513	\$49,108,839	520.2	\$45,785,520	\$3,323,319

erage significantly under that proposed by the model. Monona currently has 3.4 more officers than suggested by the 1.80 officers per 1000 population adequate coverage recommendation.

Average City Cost Scenario

A second city cost scenario was run through the ACCM to reflect the cost differences of the MPD and the other, smaller cities in Dane County. The cost differences are not inconsistent with national figures for cities of varying populations. (See Table 4 for average operating costs by city population table.)

The MPD per-officer cost, at \$100,390, is almost 10% above the second highest city per-officer cost of \$91,687 for Stoughton. If we eliminate the MPD from the mix, the average Dane County city cost per-officer drops to \$84,012, significantly below the ACCM base case parameter of \$88,000.

If average city per-officer cost (\$84,012) is imputed into the model without the MPD, the cost ramifications change dramatically. Instead of a \$3.3 million dollar surplus, there becomes a \$104,478 deficit. This assumes the same officer per population ratio of 1.80 per thousand. The city average coverage ratio is 1.78 officers per 1000 population without the MPD included, and 1.77 if the MPD is included.

TABLE 15 ADEQUATE LAW ENFORCEMENT COVERAGE COST MODEL
Dane County Cities @ \$84,012 per officer

City	Current Coverage	Current Expenditure	Suggested Coverage	Suggested Expenditure	Expenditure Difference
Fitchburg city	29	\$2,533,605	34.1	\$2,861,869	\$(328,264)
Middleton city	28	2,326,775	29.0	2,439,053	(112,278)
Monona city	19	1,327,612	15.6	1,311,242	16,370
Stoughton city	18	1,650,358	20.0	1,684,004	(33,646)
Sun Prairie city	39	3,464,277	36.0	3,022,466	441,811
Verona city	13	963,124	12.5	1,051,595	(88,471)
Total	146	\$12,265,751	147.2	\$12,370,229	\$(104,478)

The largest savings under this scenario accrues to Sun Prairie due to a three officer decline in law enforcement coverage and a decrease in the cost-per-officer. The large net deficit for Fitchburg is the result of a gain of five officers under the 1.80 officers per 1000 population parameter that offsets Fitchburg's higher per-officer expenditure.

Cambridge Case Study

In 1999, the Police Chief for the village of Cambridge retired. The village advertised for a replacement, but it received no responses. The village law enforcement committee turned to the Dane County Sheriff's Office for assistance in re-staffing the village police department.

The Sheriff's Office evaluated Cambridge's desired police coverage, budget and policing priorities. The Sheriff's Office discovered that one reason the village was having trouble attracting candidates for the chief's position was the level of compensation being offered. The village was offering a salary of about \$36,000 per year for the chief's position. The going rate was about a third again as high at \$48,000.

Upon further conversations with the Sheriff's Office, the issue of contracting for law enforcement services with the DCSO was considered. Questions arose about staffing, costs, support, and community support for an "outside" police force. Concerns about local control, deputy's priorities, and deputy's "investment" in the community were raised. For example, Cambridge is a center for arts and crafts whose economy depends on a lot of pedestrian traffic along their main street. The village wanted patrolling priority given to vehicle and pedestrian management of their central shopping area.

Cambridge decided to contract with DCSO. Under the DCSO contract, two deputies are assigned full-time to service Cambridge. The deputies wear the DCSO uniform, but patrol in a Cambridge Police Department vehicle. The deputies are sworn to uphold the local village ordinances. The deputies are charged with focusing on the law enforcement issues that are important to the village residents, such the main street traffic.

The costs of DCSO services are charged back to the village. In 2002, Cambridge will pay \$129,000 for DCSO services. This charge includes the deputies' salaries, benefits, workers' compensation, liability insurance, administrative costs, and all other DCSO support services costs. The deputies have access to full DCSO support services, including investigative services, forensic lab, citizen training, domestic abuse investigations, victim assistance and other programs. According to the Cambridge village president, contracting with the DCSO costs about the same, but DCSO supplies a much higher level of law enforcement services.

The benefits of contracting with the DCSO have been numerous according to the chair of the Cambridge police committee. The primary benefits accruing to Cambridge are a highly elevated level of professionalism and comprehensive policing resources. Case in point: There was a known child abuse case in Cambridge that went without action for years due to the limited resources applied to the case by the standing village police force. In fact, the chief had closed the case. After contracting with the DCSO, resources were brought to bear on the situation and the matter was rectified within a few months.

Black Earth Case Study

The Village of Black Earth is in the midst of changing over its law enforcement service provision to the DCSO. As this publication went to press, the village board had approved the change and was conducting interviews with the deputy candidates. The DCSO is expected to assume law enforcement duties in Black Earth on or about April 1, 2002.

The pending change in Black Earth's law enforcement staffing was precipitated by the resignation of their police chief in the fall of 2001. The village board started an inquiry about the level of service being provided by the village police department. The village board began conversations with DCSO to do an evaluation of law enforcement services in Black Earth. It then became known by the Black Earth village board that DCSO contracts for law enforcement services.

Many of the same concerns facing Cambridge residents surfaced in the Black Earth meetings for contracting the DCSO: local control, deputy "investment" in the community, and serving village priorities. On January 15, 2002, the Cambridge police committee chair presented Cambridge's experience and enthusiasm about their arrangement with the DCSO to the Black Earth village board and residents.

Also at issue was the employment status of Black Earth's two officers. Neither was retained by DCSO. A severance package was presented to both officers. One officer found another law enforcement position in Poynette, Columbia County. The other's status is unknown at press time.

The DCSO proposal calls for two deputies to patrol Black Earth, supplanting the former chief and two police officers. The DCSO deputies will wear Sheriff's Office uniforms, but drive the Black Earth squad car. The deputies will also provide specific services requested by the village board, such as actively monitoring traffic at the elementary school when the children let out. The DCSO will use the Black Earth police offices as a precinct location, increasing the activity in the area.

The proposed cost of contracting with the DCSO is close to the \$170,000 budgeted by the village of Black Earth for law enforcement services. The costs include full support services of the DCSO, including liability coverage. The village president sees the primary benefits of contracting with DCSO as the heightened level of professionalism in both management and policing services.

The primary factor driving acceptance of DCSO contracted law enforcement services for both Black Earth and Cambridge was a quality issue. Desirable to both communities was the enhanced level of policing services and increased amount of resources available through DCSO. Opinions of both village boards were that the level of law enforcement services would be greatly enhanced while costs remained essentially unchanged.

Madison Police Department

An argument could be made that the costs of running the MPD are higher than that of other surrounding smaller cities. Due to the urban characteristics of Madison, the MPD must maintain a more rigorous level of law enforcement services, including such activities as detective services, evidence rooms, forensic labs, and special outreach programs. However, the DCSO also runs a high service level law enforcement contingent with per-sworn-officer costs substantially below those of the MPD. In fact, it begs the question of why there are redundant services between two law enforcement agencies whose headquarters are located blocks from each other.

Anecdotal evidence suggests that the MPD and DCSO lab technicians once walked back and forth across the hall to assist each other. Apparently, that happens less often, if at all, these days. More important, perhaps, is the question of why aren't such services and equipment shared on equal footing by two professional agencies? The large difference in expenditures per-officer may be market driven, but the large potential savings to the MPD should make the issue open to discussion.

University of Wisconsin-Madison Police Department

The University of Wisconsin-Madison Police Department has somewhat different territorial responsibilities. The UWPD is responsible for the University of Wisconsin-Madison campus. The campus enrolls some 40,000 students during the academic year making it one of the largest population concentrations in the state. In fact, the UW campus would be the second largest city in Dane County. However, a large share of University of Wisconsin-Madison students live off-campus and are the responsibility of other law enforcement agencies. And while, the UWPD is responsible for policing students, faculty, staff and the University of Wisconsin-Madison buildings and sports arenas, the patrolling responsibilities are much the same as the other law enforcement agencies in Dane County. Running the UWPD through the ACCM yields some useful information about cost and coverage for the department.

The UWPD staffs 46 officers, giving it an officer-to-population ratio of 1.15, among the lowest of the agencies in Dane County. The average expenditure per UWPD officer is \$110,199, which is the highest of the county's law enforcement agencies. Putting the UWPD through the ACCM shows the need for an additional \$1.27 million in spending. This is due to increasing the officer/population ratio from its current 1.15 to the recommended 1.80 level, which would add twenty-eight officers to the staff. That change far outweighs the decrease in expenditures per officer.

The lower UWPD staffing levels may be justified by the fact that the much of the student population is not resident on campus for the summer months and during semester break. UWPD staffing levels could be less during these periods and vacations can be taken during these periods without additional back-up. Ratcheting down the 1.80 officers to 1000 population coverage ratio by 25% (3 months out of 12 for summer break), gives a coverage ratio of 1.35. Inputting this coverage parameter into the ACCM yields a sworn officer requirement of 54 officers, an eight officer increase. However, coupling with the lower \$88,000 per-officer cost, generates a \$313,475 cost savings.

Wisconsin Capitol Police

The ratio of officers-per-population does not apply to the WCPD as their duties cover buildings within which the workers are already considered in the general population of the communities served by the corresponding police departments. Expenditures per sworn WCPD officer are \$108,163, the second highest in the county.

While the WCPD doesn't fit the ACCM model, other issues beyond the scope of this study are raised. For example, why are WCPD costs per-officer so high? Why couldn't the DCSO, the MPD and the Milwaukee County Sheriff's office or the Milwaukee Police Department and the Wisconsin State Patrol assume some or all of WCPD duties?

MOTOR POOL COSTS

Initially, the law enforcement agencies' vehicle maintenance costs were viewed as an item for potentially large cost savings. Why not have one entity service all the law enforcement vehicles in the county instead of each major law enforcement department servicing their own with all the redundant personnel and equipment?

It turns out, however, that neither of the two major law enforcement vehicle operators, the Madison Police Department and the Dane County Sheriff's Office, does their own vehicle maintenance. The MPD has 181 of its 197 vehicles serviced by the Motor Equipment Division of the Madison Department of Public Works and Transportation (MED). MED handles all MPD vehicle maintenance and minor repairs as part of its task of caring for some eleven hundred city vehicles. Major repairs to city vehicles, including the police squad cars, are out-sourced to private shops that can handle the job.

The MED is a zero balance service agency. All vehicle purchase, operating, maintenance, and repair costs, along with insurance costs, are passed back to the appropriate city department. The MED charge to the Madison Police Department was about \$1.6 million in 2000. This includes vehicle purchases, gasoline and motor oil costs, which are purchased below retail market prices. Costs are monitored to assure that MED services are cost effective. MED hourly labor rates, at \$50 per hour, are generally below private retail rates that range from \$60 to \$82 per hour. Any service that can be contracted out at lower costs is out-sourced. In fact, MED provides limited service to non-Madison fleets such as repairs to other fire departments' vehicles.

The Dane County Sheriff's Office maintains 88 vehicles. DCSO spent \$350,000 on gas, tires, maintenance and bodywork in 2000. DCSO purchases 98% of its fuel from the Dane County Highway Department. This allows DCSO to take advantage of the high-volume discounts on fuel through the highway department and keeps those expenditures within the county.

DCSO vehicles are serviced at a privately owned automobile service shop at discounted retail rates, \$56 per hour. While the contracted hourly rates are slightly higher for the DCSO than those quoted by MED (although DCSO said they were quoted a higher rate from MED), the vendor DCSO uses can do major body and mechanical repair on site that is beyond the level of services that could be provide by MED. Routine and warranty maintenance and repairs are completed at regular service intervals. The private vendor has a larger selection of parts in house. Factory updates, problems and recalls are often remedied before many government agencies are alerted to notices. Maintenance or repair mishaps are also covered by the repair shop's labor warranty, instead of by the taxpayer, as may be the case for the MED. It was also mentioned that the value of a one-stop shop at competitive rates saves much time and resources in running a vehicle hither and yon to complete different service items.

The private shop services DCSO vehicles at off-peak hours, usually before the start of the regular service hour day. DCSO monitors costs and services at other private vendors as well to assure best value pricing.

EMERGENCY DISPATCH COMMUNICATIONS CENTERS

There are twenty-three Dane County law enforcement agencies that use the Dane County Public Safety Communications Center (DCCC). Fifty-six telecommunicators (dispatchers) serve a total 641 sworn officers in the law enforcement agencies that participate in the DCCC. These telecommunicators also serve the participating fire and rescue services, but 86% of the calls are for policing events. The DCCC 2000 operating budget totaled \$4,157,500, or \$63,962 per dispatcher. This figure includes management and clerical support. The DCCC sworn-officer-served-to-dispatcher ratio is 11.5.

Fitchburg, Middleton, Monona, Stoughton, Sun Prairie, the UWPD and the WCPD all have their own dispatch centers. Fitchburg, Middleton, Monona, and Stoughton each staff four full-time dispatchers. The UWPD staffs six dispatchers. Sun Prairie has nine full-time dispatchers as does the WCPD.

According to a budget proposal presented in last year's Monona budget debate, Monona could have saved \$100,000 if it rerouted its emergency dispatch calls through the DCCC.

Monona is a city of 8,671 people with 19 sworn officers. Monona had four full-time dispatch center personnel in 2000 and five part-time dispatchers. Based upon just the \$100,000 savings figure per four full-time dispatchers (or \$25,000 per full-time dispatcher), transferring the Monona emergency dispatch duties to the DCCC would save every Monona citizen \$11.53 or amount to a \$5,263 cost savings per-sworn-officer.

Saving \$100,000 per every four dispatchers (or \$25,000 per-dispatcher) across the five cities would yield a \$625,000 savings. This is not counting the number of part-time dispatchers.

If part-time staffing is a function of the number of law enforcement officers in a particular jurisdiction, then the cost numbers could be applied as per-sworn-officer. These five cities staffed a total of 133 sworn officers in 2000. A savings of \$5,263 per-officer generates \$699,979 in potential savings due to eliminating redundant emergency dispatch personnel in these cities. This does not include hardware and software costs.

Furthermore, if the duties of the six UWPD Police Communications Officers (dispatchers) were transferred to the DCCC, another \$150,000 in savings could be reaped, again not including the redundant costs of center hardware and software. Under the above assumptions, the potential WCPD cost savings is \$225,000.

Total savings possible by combining all emergency dispatch into the DCCC under these assumptions calculates to \$1,074,979. This figure represents the total of the cities savings (\$699,979), the UWPD savings (\$150,000), and the WCPD savings (\$225,000).

Granted, the DCCC would probably have to hire additional personnel to handle the increased load of the surrounding cities' emergency calls, but economies of scale could be maximized. Many of the personnel in the above cities' dispatch centers are undoubtedly qualified to staff the DCCC and could be employed there.

Another method of calculating dispatch savings for the county is to apply the DCCC officer-served-to-dispatcher ratio (11.5) to the independent dispatch centers. On average, the independently dispatched cities of Fitchburg, Middleton, Monona, Stoughton, and Sun Prairie have an officer-to-dispatcher ratio of 5.32. That figure includes only full-time dispatcher positions. Incorporating the cities' dispatch centers into the DCCC could eliminate 13.4 full-time dispatcher positions.

Using the Monona budget figure of \$25,000 per full-time dispatcher, the cities' savings amounts to \$335,870. Applying like ratios and cost per dispatcher to the UWPD and the WCPD would yield savings of \$50,000 and \$118,478, respectively. The sum total of dispatch cost savings under these parameters equals \$504,348. This does not include savings from part-time dispatchers or redundant hardware and software costs.

At the other end of the cost spectrum, perhaps, is the \$63,962 per DCCC dispatcher cost. Using this figure in the calculations generates a potential savings for the cities of \$859,316. Savings for the UWPD would be \$127,924. Savings for the WCPD would be \$303,124. The sum of these figures is \$1,290,364.

TABLE 16 DISPATCH CALCULATIONS — (11.5 OFFICERS SERVED PER DISPATCHER)

Dispatch Center	Dispatchers Saved	Savings @ \$25,000	Savings @ \$63,962
Fitchburg	1.48	\$36,957	\$94,553
Middleton	2.35	58,696	150,172
Monona	1.57	39,130	100,114
Stoughton	2.43	60,870	155,734
Sun Prairie	5.61	140,217	358,743
UWPD	2.00	50,000	127,924
WCPD	4.74	118,478	303,124
Total	20.18	\$504,348	\$1,290,364

Still, the above cost saving estimates are conservative as the additional savings possible from eliminating part-time staff and the redundant hardware and software equipment necessary for each dispatch center are not included. More hardware may need to be installed at the DCCC, but the marginal cost would be just a fraction of any basic communications system, as the great bulk of such a system is already up and operating at DCCC. The cities' equipment could, if compatible, be reinstalled at DCCC.

Most local independent emergency response agencies voice concern over the reliability and reaction time of dispatching emergency services from a central location. Those communities that maintain their own independent dispatch centers feel it is worth the added cost for the perception, real or imagined, that they will get a higher service level with their own communications center. The Monona police chief argued that response time would deteriorate using the DCCC. The fact that wireless 911 calls are routed through the DCCC to the Monona dispatch center for action is noteworthy. Unknown is whether 911 calls routed from DCCC to Monona incur different response times.

In times past, telecommunications were less dependable and local dispatch may have made more sense. Today's state of the art telecommunications equipment coupled with the latest computer hardware and software make distance and location much less of a detriment to emergency response. In fact, with region-wide dispatch communications linkages, response time and required resources may be applied more directly and efficiently, resulting in better law enforcement service provision, particularly if fewer separate agencies are involved. The speed and effectiveness of bringing adequate force to bear on any particular event would be enhanced with synchronous communications and without jurisdictional boundaries.

TOTAL POTENTIAL COST SAVINGS

The range for total potential cost savings for Dane County law enforcement is quite large. The potential actually goes from a negative \$1.2 million (or additional spending) to over \$6 million dollars in possible savings. The final result is ultimately a political decision, but depending upon the cost and coverage parameters, a significant, if not substantial, amount of money could be saved with the better coordination of law enforcement services across the county. At the very least, the quality and consistency of law enforcement services in Dane County could be enhanced.

Table 17 presents the ACCM model simulations reported in this study. The simulation results present changes from the existing situation. The range of savings are primarily from inputting different cost parameters and applying them across differing municipal groupings. For example, one simulation considered just changes in the cost parameters to villages. Another applied the cost and coverage parameters to all of Dane County's law enforcement agencies on equal footing.

TABLE 17 ADEQUATE COST COVERAGE MODEL SIMULATION RESULTS

Simulation*	Net Savings	Dispatch Savings	Total Savings
Town @ \$88K	\$329,075	0	\$329,075
Villages Only @ \$88K	(1,219,446)	0	(1,219,446)
Villages Only @ \$72K	287,164	0	287,164
Cities Only @ \$88K	3,323,319	699,979	4,023,298
Cities Only @ \$84K, w/o Madison	(104,478)	699,979	595,501
Town, Villages & Cities @ \$88K	2,432,948	699,979	3,132,927
DCSO @ \$88K	2,339,820	0	2,339,820
UWPD @ \$88K @ 1.35 coverage	313,475	150,000	463,475
All Dane County @ \$88K**	\$5,086,243	\$1,290,364	\$6,376,607

* simulation coverage parameter is 1.80 officers per 1000 population unless otherwise indicated

** includes UWPD at 1.35 coverage and eliminates WCPD dispatch

Clearly, \$6.4 million dollars is a large figure. The primary components of these cost savings are: 1) officer costs for the MPD, 2) staffing levels at the DCSO, and 3) redundant dispatch services. Taken in the context of total Dane County law enforcement costs of \$88 million (not including the WCPD), the \$6.4 million dollar figure amounts to about seven percent.

Perhaps, the high per-officer costs of the MPD and the UWPD are justified by the high-density areas they serve, but their cost structures should be reviewed in relation to other law enforcement agency costs. Similarly, the personnel structure of the DCSO may be necessary to serve its sparsely populated territory, but its management and support structure may be large in relation to other agencies. The existence of the WCPD, at \$5.3 million, should be reviewed for outsourcing its duties to other law enforcement agencies. Dane County cities other than Madison need to review the redundant dispatch services they support for a potential combined savings of almost \$700,000. On the other hand, it becomes readily apparent that Dane County villages need and value higher quality law enforcement services.

Looked at in another way, at \$88,000 dollars per officer, \$6.4 million dollars could put another 73 sworn law enforcement personnel on the beat. That amounts to the entire combined police forces of the two largest Dane County cities outside Madison, serving 38,000 people.

The results presented above reflect a broad range of cost and coverage assumptions, but by no means capture all the possible scenarios. Policy debate will determine which of the above parameters deserve review and action.

SUMMARY

This study was undertaken with the purpose of exploring potential cost savings in law enforcement services in Dane County. Cost and management structures across the law enforcement agencies serving Dane County were analyzed and compared. There is no intention to advise on policing policy.

There are large cost and coverage discrepancies across the varying law enforcement agencies in Dane County. These differences were condensed into common denominators for cross-agency comparisons. Specific law enforcement cost and coverage parameters were inputted into an adequate cost coverage model that was developed based upon publicly available data. Cost and coverage assumptions were determined by the data and information gathered from the various law enforcement agencies in the county.

Implied cost savings range from a negative \$1.3 million to a positive \$6.4 million. The largest potential cost savings occurred, not unexpectedly, in the largest law enforcement agencies, MPD, UWPD and DCSO. The savings for the MPD and UWPD were generated by reductions in their relatively high, per-officer costs. The DCSO savings were a result of decrease in officers per 1000 population coverage. Eliminating emergency dispatch centers could save over \$1 million annually.

While policy makers across Dane County may argue with great merit the validity of the cost and coverage assumptions in this study and the perils of altering the current law enforcement structure, six million dollars suggests that serious discussion should take place about ways in which to lower the cost and raise the quality of law enforcement services in the county.

ACKNOWLEDGEMENTS

This study was conducted at the request of the Wisconsin Policy Research Institute to determine if there were significant savings possible by better coordinating the law enforcement services in Dane County, Wisconsin. The author would like to thank WPRI for their support and patience in completing this project.

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Appreciation for the tasks and duties supplied by Dane County's law enforcement agencies was greatly enhanced by the interactions the author had with the county's law enforcement personnel. The author accepts full responsibility for the accuracy of the data and results of this analysis.

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APPENDIX

TABLE A-1
Dane County Municipalities Ordered by Population

Municipality	Population	Sworn Officers	Expenditures	Officers per 1000 Pop	Expenditures per Capita	Expenditures per Officer
Madison city	207,248	367	\$36,843,088	1.77	\$177.77	\$100,390
Sheriff's Office*	65,996	145	12,793,587	2.20	193.85	88,232
UW	40,000	46	5,065,475	1.15	126.64	110,119
Sun Prairie city	19,987	39	3,464,277	1.95	173.33	88,828
Fitchburg city	18,925	29	2,533,605	1.53	133.88	87,366
Middleton city	16,129	28	2,326,775	1.74	144.26	83,099
Stoughton city	11,136	18	1,650,358	1.62	148.20	91,687
Monona city	8,671	19	1,327,612	2.19	153.11	69,874
Waunakee village	8,491	13	963,490	1.53	113.47	74,115
Verona city	6,954	13	963,124	1.87	138.50	74,086
Oregon village	6,770	13	877,837	1.92	129.67	67,526
DeForest village	6,656	11	1,062,100	1.65	159.57	96,555
Madison town	6,611	16	1,376,257	2.42	208.18	86,016
McFarland village	6,321	11	842,758	1.74	133.33	76,614
Dunn town	5,513		42,126		7.64	
Mount Horeb village	5,368	10	675,733	1.86	125.88	67,573
Windsor town	5,325		87,631		16.46	
Middleton town	4,357		86,399		19.83	
Cottage Grove town	3,984		252,081		63.27	
Westport town	3,820		7,237		1.89	
Burke town	3,132		43,253		13.81	
Marshall village	3,017	6	385,143	1.99	127.66	64,191
Cross Plains village	2,984	4	303,469	1.34	101.70	75,867
Cottage Grove village	2,958	8	499,022	2.70	168.70	62,378
Oregon town	2,933		15,142		5.16	
Pleasant Springs town	2,932		1,642		0.56	
Springfield town	2,846					
Bristol town	2,378					
Verona town	2,229					
Dunkirk town	2,197		553		0.25	
Sun Prairie town	2,147		1,246		0.58	
Albion town	2,052		16,734		8.15	
Blooming Grove town	2,003		41,939		20.94	
Belleville village	1,911	3	209,852	1.57	109.81	69,951
Deerfield village	1,867	2	173,024	1.07	92.67	86,512
Rutland town	1,796		1,076		0.60	
Roxbury town	1,708					
Shorewood Hills village	1,659	6	413,181	3.62	249.05	68,864
Springdale town	1,529					
Mazomanie village	1,518	3	173,982	1.98	114.61	57,994
Vienna town	1,415					
Deerfield town	1,403					
Cross Plains town	1,379					
Black Earth village	1,369	3	150,892	2.19	110.22	50,297
Maple Bluff village	1,339	5	322,986	3.73	241.21	64,597
Christiana town	1,262		20		0.02	

TABLE A-1 (CONTINUED)
Dane County Municipalities Ordered by Population

Municipality	Population	Sworn Officers	Expenditures	Officers per 1000 Pop	Expenditures per Capita	Expenditures per Officer
Medina town	1,248					
Berry town	1,184					
Cambridge village	1,144		123,552			
Montrose town	1,111					
Mazomanie town	1,067					
Dane town	981					
Dane village	771		46,796		60.70	
Vermont town	770					
Blue Mounds town	746					
Perry town	705					
York town	694					
Blue Mounds village	663		91,058			
Primrose town	652					
Black Earth town	446					
Rockdale village	229		7,608		33.22	
Wisconsin Capitol	0	49	5,300,000			108,163

* Population is difference of total Dane County population and sum of municipal populations.

Population figures from U.S. Bureau of the Census as of 4/1/2000.

Population data is consistent with expenditure data from WTA, matched with LEO 2000 Table 9 data: it differs slightly from DCSO data and some sets of WI census data from state DOAsites.

TABLE A-2
Dane County Municipalities Ordered by Sworn Officers

Municipality	Population	Sworn Officers	Expenditures	Officers per 1000 Pop	Expenditures per Capita	Expenditures per Officer
Madison city	207,248	367	\$36,843,088	1.77	\$177.77	\$100,390
Sheriff's Office*	65,996	145	12,793,587	2.20	193.85	88,232
Wisconsin Capitol	0	49	5,300,000			108,163
UW	40,000	46	5,065,475	1.15	126.64	110,119
Sun Prairie city	19,987	39	3,464,277	1.95	173.33	88,828
Fitchburg city	18,925	29	2,533,605	1.53	133.88	87,366
Middleton city	16,129	28	2,326,775	1.74	144.26	83,099
Monona city	8,671	19	1,327,612	2.19	153.11	69,874
Stoughton city	11,136	18	1,650,358	1.62	148.20	91,687
Madison town	6,611	16	1,376,257	2.42	208.18	86,016
Verona city	6,954	13	963,124	1.87	138.50	74,086
Oregon village	6,770	13	877,837	1.92	129.67	67,526
Waunakee village	8,491	13	963,490	1.53	113.47	74,115
DeForest village	6,656	11	1,062,100	1.65	159.57	96,555
McFarland village	6,321	11	842,758	1.74	133.33	76,614
Mount Horeb village	5,368	10	675,733	1.86	125.88	67,573
Cottage Grove village	2,958	8	499,022	2.70	168.70	62,378
Shorewood Hills village	1,659	6	413,181	3.62	249.05	68,864
Marshall village	3,017	6	385,143	1.99	127.66	64,191
Maple Bluff village	1,339	5	322,986	3.73	241.21	64,597
Cross Plains village	2,984	4	303,469	1.34	101.70	75,867
Mazomanie village	1,518	3	173,982	1.98	114.61	57,994
Black Earth village	1,369	3	150,892	2.19	110.22	50,297
Belleville village	1,911	3	209,852	1.57	109.81	69,951
Deerfield village	1,867	2	173,024	1.07	92.67	86,512
Cambridge village**	1,144	2	123,552	1.75	108.00	61,776

* includes Field Services Division plus Executive and Support Division deputies assigned to Field Services

** two deputies contracted with DCSO

Only Municipalities that have Sworn Officers are included.

TABLE A-3
Dane County Municipalities Ordered by Expenditures

Municipality	Population	Sworn Officers	Expenditures	Officers per 1000 Pop	Expenditures per Capita	Expenditures per Officer
Madison city	207,248	367	\$36,843,088	1.77	\$177.77	\$100,390
Sheriff's Office*	65,996	145	12,793,587	2.20	193.85	88,232
Wisconsin Capitol	0	49	5,300,000			108,163
UW	40,000	46	5,065,475	1.15	126.64	110,119
Sun Prairie city	19,987	39	3,464,277	1.95	173.33	88,828
Fitchburg city	18,925	29	2,533,605	1.53	133.88	87,366
Middleton city	16,129	28	2,326,775	1.74	144.26	83,099
Stoughton city	11,136	18	1,650,358	1.62	148.20	91,687
Madison town	6,611	16	1,376,257	2.42	208.18	86,016
Monona city	8,671	19	1,327,612	2.19	153.11	69,874
DeForest village	6,656	11	1,062,100	1.65	159.57	96,555
Waunakee village	8,491	13	963,490	1.53	113.47	74,115
Verona city	6,954	13	963,124	1.87	138.50	74,086
Oregon village	6,770	13	877,837	1.92	129.67	67,526
McFarland village	6,321	11	842,758	1.74	133.33	76,614
Mount Horeb village	5,368	10	675,733	1.86	125.88	67,573
Cottage Grove village	2,958	8	499,022	2.70	168.70	62,378
Shorewood Hills village	1,659	6	413,181	3.62	249.05	68,864
Marshall village	3,017	6	385,143	1.99	127.66	64,191
Maple Bluff village	1,339	5	322,986	3.73	241.21	64,597
Cross Plains village	2,984	4	303,469	1.34	101.70	75,867
Belleville village	1,911	3	209,852	1.57	109.81	69,951
Mazomanie village	1,518	3	173,982	1.98	114.61	57,994
Deerfield village	1,867	2	173,024	1.07	92.67	86,512
Black Earth village	1,369	3	150,892	2.19	110.22	50,297
Cambridge village**	1,144	2	123,552	1.75	108.00	61,776

* includes Field Services Division plus Executive and Support Division deputies assigned to Field Services

** two deputies contracted with DCSO

Expenditure data from DOR, Division of State & Local Finance, Bureau of Local Financial Assistance, Financial Report forms, Schedule A,B,C

TABLE A-4
Dane County Municipalities Ordered by Officers per 1000 Population

Municipality	Population	Sworn Officers	Expenditures	Officers per 1000 Pop	Expenditures per Capita	Expenditures per Officer
Maple Bluff village	1,339	5	\$322,986	3.73	\$241.21	\$64,597
Shorewood Hills village	1,659	6	413,181	3.62	249.05	68,864
Cottage Grove village	2,958	8	499,022	2.70	168.70	62,378
Madison town	6,611	16	1,376,257	2.42	208.18	86,016
Sheriff's Office*	65,996	145	12,793,587	2.20	193.85	88,232
Black Earth village	1,369	3	150,892	2.19	110.22	50,297
Monona city	8,671	19	1,327,612	2.19	153.11	69,874
Marshall village	3,017	6	385,143	1.99	127.66	64,191
Mazomanie village	1,518	3	173,982	1.98	114.61	57,994
Sun Prairie city	19,987	39	3,464,277	1.95	173.33	88,828
Oregon village	6,770	13	877,837	1.92	129.67	67,526
Verona city	6,954	13	963,124	1.87	138.50	74,086
Mount Horeb village	5,368	10	675,733	1.86	125.88	67,573
Madison city	207,248	367	36,843,088	1.77	177.77	100,390
Cambridge village**	1,144	2	123,552	1.75	108.00	61,776
McFarland village	6,321	11	842,758	1.74	133.33	76,614
Middleton city	16,129	28	2,326,775	1.74	144.26	83,099
DeForest village	6,656	11	1,062,100	1.65	159.57	96,555
Stoughton city	11,136	18	1,650,358	1.62	148.20	91,687
Belleville village	1,911	3	209,852	1.57	109.81	69,951
Fitchburg city	18,925	29	2,533,605	1.53	133.88	87,366
Waunakee village	8,491	13	963,490	1.53	113.47	74,115
Cross Plains village	2,984	4	303,469	1.34	101.70	75,867
UW	40,000	46	5,065,475	1.15	126.64	110,119
Deerfield village	1,867	2	173,024	1.07	92.67	86,512
Wisconsin Capitol	0	49	5,300,000			108,163

* includes Field Services Division plus Executive and Support Division deputies assigned to Field Services

** two deputies contracted with DCSO

TABLE A-5
Dane County Municipalities Ordered by Expenditures per Capita

Municipality	Population	Sworn Officers	Expenditures	Officers per 1000 Pop	Expenditures per Capita	Expenditures per Officer
Shorewood Hills village	1,659	6	\$413,181	3.62	\$249.05	\$68,864
Maple Bluff village	1,339	5	322,986	3.73	241.21	64,597
Madison town	6,611	16	1,376,257	2.42	208.18	86,016
Sheriff's Office	65,996	145	12,793,587	2.20	193.85	88,232
Madison city	207,248	367	36,843,088	1.77	177.77	100,390
Sun Prairie city	19,987	39	3,464,277	1.95	173.33	88,828
Cottage Grove village	2,958	8	499,022	2.70	168.70	62,378
DeForest village	6,656	11	1,062,100	1.65	159.57	96,555
Monona city	8,671	19	1,327,612	2.19	153.11	69,874
Stoughton city	11,136	18	1,650,358	1.62	148.20	91,687
Middleton city	16,129	28	2,326,775	1.74	144.26	83,099
Verona city	6,954	13	963,124	1.87	138.50	74,086
Fitchburg city	18,925	29	2,533,605	1.53	133.88	87,366
McFarland village	6,321	11	842,758	1.74	133.33	76,614
Oregon village	6,770	13	877,837	1.92	129.67	67,526
Marshall village	3,017	6	385,143	1.99	127.66	64,191
UW	40,000	46	5,065,475	1.15	126.64	110,119
Mount Horeb village	5,368	10	675,733	1.86	125.88	67,573
Mazomanie village	1,518	3	173,982	1.98	114.61	57,994
Waunakee village	8,491	13	963,490	1.53	113.47	74,115
Black Earth village	1,369	3	150,892	2.19	110.22	50,297
Belleville village	1,911	3	209,852	1.57	109.81	69,951
Cambridge village**	1,144	2	123,552	1.75	108.00	61,776
Cross Plains village	2,984	4	303,469	1.34	101.70	75,867
Deerfield village	1,867	2	173,024	1.07	92.67	86,512
Wisconsin Capitol	0	49	5,300,000			108,163

* includes Field Services Division plus Executive and Support Division deputies assigned to Field Services

** two deputies contracted with DCSO

Expenditure data from DOR, Division of State & Local Finance, Bureau of Local Financial Assistance, Financial Report forms, Schedule A,B,C

TABLE A-6
Dane County Municipalities Ordered by Expenditures per Officer

Municipality	Population	Sworn Officers	Expenditures	Officers per 1000 Pop	Expenditures per Capita	Expenditures per Officer
UW	40,000	46	\$5,065,475	1.15	\$126.64	\$110,119
Wisconsin Capitol	0	49	5,300,000			108,163
Madison city	207,248	367	36,843,088	1.77	177.77	100,390
DeForest village	6,656	11	1,062,100	1.65	159.57	96,555
Stoughton city	11,136	18	1,650,358	1.62	148.20	91,687
Sun Prairie city	19,987	39	3,464,277	1.95	173.33	88,828
Sheriff's Office*	65,996	145	12,793,587	2.20	193.85	88,232
Fitchburg city	18,925	29	2,533,605	1.53	133.88	87,366
Deerfield village	1,867	2	173,024	1.07	92.67	86,512
Madison town	6,611	16	1,376,257	2.42	208.18	86,016
Middleton city	16,129	28	2,326,775	1.74	144.26	83,099
McFarland village	6,321	11	842,758	1.74	133.33	76,614
Cross Plains village	2,984	4	303,469	1.34	101.70	75,867
Waunakee village	8,491	13	963,490	1.53	113.47	74,115
Verona city	6,954	13	963,124	1.87	138.50	74,086
Belleville village	1,911	3	209,852	1.57	109.81	69,951
Monona city	8,671	19	1,327,612	2.19	153.11	69,874
Shorewood Hills village	1,659	6	413,181	3.62	249.05	68,864
Mount Horeb village	5,368	10	675,733	1.86	125.88	67,573
Oregon village	6,770	13	877,837	1.92	129.67	67,526
Maple Bluff village	1,339	5	322,986	3.73	241.21	64,597
Marshall village	3,017	6	385,143	1.99	127.66	64,191
Cottage Grove village	2,958	8	499,022	2.70	168.70	62,378
Cambridge village**	1,144	2	123,552	1.75	108.00	61,776
Mazomanie village	1,518	3	173,982	1.98	114.61	57,994
Black Earth village	1,369	3	150,892	2.19	110.22	50,297

* includes Field Services Division plus Executive and Support Division deputies assigned to Field Services

** two deputies contracted with DCSO

Expenditure data from DOR, Division of State & Local Finance, Bureau of Local Financial Assistance, Financial Report forms, Schedule A,B,C

ABOUT THE INSTITUTE

The **Wisconsin Policy Research Institute** is a not-for-profit institute established to study public-policy issues affecting the state of Wisconsin.

Under the new federalism, government policy increasingly is made at the state and local levels. These public-policy decisions affect the life of every citizen in the state. Our goal is to provide nonpartisan research on key issues affecting Wisconsinites, so that their elected representatives can make informed decisions to improve the quality of life and future of the state.

Our major priority is to increase the accountability of Wisconsin's government. State and local governments must be responsive to the citizenry, both in terms of the programs they devise and the tax money they spend. Accountability should apply in every area to which the state devotes the public's funds.

The Institute's agenda encompasses the following issues: education, welfare and social services, criminal justice, taxes and spending, and economic development.

We believe that the views of the citizens of Wisconsin should guide the decisions of government officials. To help accomplish this, we also conduct regular public-opinion polls that are designed to inform public officials about how the citizenry views major statewide issues. These polls are disseminated through the media and are made available to the general public and the legislative and executive branches of state government. It is essential that elected officials remember that all of the programs they create and all of the money they spend comes from the citizens of Wisconsin and is made available through their taxes. Public policy should reflect the real needs and concerns of all of the citizens of the state and not those of specific special-interest groups.