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ABSTRACT

This edition features over 400 projects that have effected cost savings and/or improved services in a broad range of functional areas of city management, a jurisdictional index as well as a topical index, in-depth reports on selected projects, and project description forms that readers can use to share their successful projects with other readers. The broad subject headings are general administration, public safety, public works, parks/recreation/libraries, inspections, energy conservation, and social services. (Author/IRT)

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JULY 1978

The 94th Congress created the National Center for Productivity and Quality of Working Life on November 28, 1975, as an independent Federal agency. The Center's enabling legislation (P.L. 94-136) establishes a national policy encouraging "productivity growth consistent with needs of the economy, the natural environment, and the needs, rights, and best interests of management, the work force, and consumers." The Center's purpose is to stimulate national efforts to implement this policy.

Programs are conducted through committees drawn from the Center's Board of Directors. The 27-member Board is composed of leaders of labor, business, State and local governments, and institutions of higher learning. The Secretaries of Commerce, Labor, and the Treasury, the Director of the Federal Mediation and Conciliation Service, and the Executive Director of the Center are also members. The Vice President of the United States is Chairman of the Board.

Located in Washington, D.C., the Center is composed of a small staff of productivity specialists who support the Board of Directors in their pursuit of seven main objectives:

- Document and recommend policies to satisfy the Nation's capital investment needs from a productivity standpoint.
- Encourage labor-management cooperation to enhance productivity and the quality of working life.
- Without compromising legislative intent, identify and recommend changes in government regulation which will improve productivity.
- Stimulate and support industry task forces formed to conduct programs for industrywide productivity improvement.
- Develop and recommend more effective approaches to improving productivity in the public sector.
- Improve the review, coordination, and integration of productivity enhancement efforts of other Federal agencies.
- Develop a better understanding of the concept of productivity and encourage better techniques for measuring productivity changes.

GUIDE TO  
PRODUCTIVITY IMPROVEMENT PROJECTS

Third Edition

July 1976

prepared for the  
NATIONAL CENTER FOR PRODUCTIVITY  
AND  
QUALITY OF WORKING LIFE

by the

INTERNATIONAL  
CITY  
MANAGEMENT  
ASSOCIATION



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For the past three years, the Guide to Productivity Improvement Projects has been prepared by the International City Management Association for the National Center for Productivity and Quality of Working Life and made available free with Center support. With the publication of this third edition, the Guide is on its own. In the future it will be published by ICMA and distributed on a subscription basis only. To receive forthcoming editions and updates of the Guide, contact:

Productivity Guide  
International City Management Association  
1140 Connecticut Avenue, N.W.  
Washington, D.C. 20036

## INTRODUCTION

Here it is -- the completely updated third edition of the Guide to Productivity Improvement Projects (formerly called the Jurisdictional Guide to Productivity Improvement Projects). This Guide features:

- over 400 projects which have effected cost savings and/or improved services in a broad range of functional areas.
- a jurisdictional index as well as a topical index to help you locate projects (pp. 103-110).
- in-depth reports on selected projects. These are marked with the symbol ■ , and are available through the Report Clearinghouse (pp. 111-115).
- project description forms which we hope you will use to share your successful projects with other Guide readers (see p. 117).

For the past three years, the Guide to Productivity Improvement Projects has been prepared by the International City Management Association for the National Center for Productivity and Quality of Working Life and made available free with Center support. With the publication of this third edition, the Guide is on its own. In the future it will be published by ICMA and distributed on a subscription basis only. To receive forthcoming editions and updates of the Guide, contact Productivity Guide, International City Management Association, 1140 Connecticut Avenue, N.W., Washington, D.C. 20036.

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## GENERAL ADMINISTRATION

■ This symbol indicates that an in-depth report on the project is available through the Report Clearinghouse. See pages 111-115 for descriptions of the reports and order forms.

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MANAGEMENT BY OBJECTIVES

MBO appears to be gaining increased use by local government managers because of its emphasis upon setting tangible objectives and evaluating subsequent performance in terms of tangible results. While almost endless variations of the approach are possible (and some notable failures have been identified), the following cities report at least some success with the idea. For further information, contact:

City of Phoenix (667,846)

Charles E. Hill, Budget and Research Director  
251 West Washington Street, Phoenix, Arizona 85003  
(602) 262-4808

City of Fort Worth (393,500)

Rodger N. Line, City Manager  
1000 Throckmorton Street, Fort Worth, Texas 76102  
(817) 335-7221

City of Eau Claire (44,600)

Ray Wachs, City Manager  
City Hall, Eau Claire, Wisconsin 54701  
(715) 832-8331

City of Overland Park (83,000)

Gary L. Hunt, Administrative Assistant to the City Manager  
8500 Santa Fe Drive, Overland Park, Kansas 66212  
(913) 381-5252

City of San Diego (696,769)

Larry Haden, Financial Management Director  
202 West C Street, San Diego, California 92101  
(714) 236-6544

City of Little Rock (139,700)

Joe Denny, Personnel Director  
City Hall, Little Rock, Arkansas 72201  
(501) 376-6111, extension 220

## PROGRAM BUDGETING

An increasing number of jurisdictions have implemented program budgets. While far from exhaustive, the following is a list of cities of varying sizes which are using the changed budget format. For further information, contact:

City of Phoenix (676,846)  
Charles Hill, Budget Director  
251 West Washington Street, Phoenix, Arizona 85003  
(602) 262-4808

City of Newport (34,000)  
R. S. Guy, Finance Director  
City Hall, Newport, Rhode Island 04820  
(401) 846-9605

City of Dubuque (62,309)  
Gilbert Chavenelle, City Manager  
City Hall, Dubuque, Iowa 52001  
(319) 583-6441

City of San Diego (696,769)  
Larry Haden, Financial Management Director  
202 West C Street, San Diego, California 92101  
(714) 236-6544. Report #18538, page 113

City of Palo Alto (55,966)  
for further information, see:  
Report #19127, page 111

City of Coon Rapids (30,500)  
J. K. Cottingham, City Manager  
1313 Coon Rapids Boulevard, Coon Rapids, Minnesota 55433  
(612) 755-2880

City of Boulder (79,904)  
Joseph A. Romano, Budget Director  
City Hall, Boulder, Colorado 80302  
(303) 442-3131

City of Sunnyvale (105,000)  
Camille Cates, Intergovernmental Relations Officers  
P.O. Box 607, Sunnyvale, California 94088  
(408) 739-0531, extension 247

City of Fort Worth (393,500)

Rodger N. Line, City Manager

1000 Throckmorton Street, Fort Worth, Texas 76102  
(817) 335-7221

City of Fridley (29,000)

Nasim M. Quereshi, City Manager

6431 University Avenue, N.E., Fridley, Minnesota 55432  
(612) 560-3450

City of Walnut Creek (40,000)

David G. Finigan, Public Services Department

1445 Civic Center Drive, Walnut Creek, California 94596  
(415) 935-3300

Coon Rapids, Minnesota (30,500), has developed a "Policies Manual" which consists of three parts. The first deals with existing policy; the second shows previous city policies on the same subjects; and the third is an Appendix with copies of council resolutions, motions, contracts, leases, etc., which established the policies. The manual's format is the same as that of the program performance budget, with page numbers coinciding with budget's activity account numbers. This linkage with the PPB format attempts to point out to present and future decision makers policies which may need clarification or new policies that need to be developed. The manual was designed to be helpful to new staff, to citizens, and to future council members. For further information, contact:

J. K. Cottingham, City Manager

1313 Coon Rapids Boulevard, Coon Rapids, Minnesota 55433  
(612) 755-2880

## MEASUREMENT SYSTEMS

Lakewood, Colorado (140,000), has developed a program performance budgeting system that is based on the set of goals and objectives for the city's 87 programs. Performance indicators are reported in four categories: demand for service; organizational work load; productivity; and effectiveness or impact of municipal services. Indicators are collected monthly and quarterly and displayed in the city's management information center. For further information, contact:

Ray S. Wells, City Administrator  
1580 Yarrow Street, Lakewood, Colorado 80215  
(303) 234-8605

St. Petersburg, Florida (236,327), collects approximately 600 performance indicators covering the entire range of municipal services. These indicators, reported monthly, are compared by computer to historical data and to anticipated activity levels. These data, as well as the results of the annual citizens' survey, are analyzed to highlight problems needing management attention. For further information, contact:

Paul V. Yingst, Director, Management Improvement  
P.O. Box 2842, St. Petersburg, Florida 33731  
(813) 893-7491. Report #19100, page 111

Washington, D.C. (757,000), has developed performance measures for 70 programs in 13 agencies as part of its performance monitoring system. Performance data, reported monthly, suggest appropriate directions for improvement efforts. In selected programs, intensive operational analysis is undertaken to improve productivity and to develop modifications in management techniques which might be transferable to other programs. For further information, contact:

Tom Hoey, Chief, Resource and Management Improvement Division  
Room 423, 14th and E Streets, N.W., Washington, D.C. 20004  
(202) 629-5076

Phoenix, Arizona (667,846), has conducted program analysis reviews for several service areas including personnel, street maintenance, parks, planning, city court, traffic engineering, police, library, fire, sanitary sewers, and the city's community action agency. These reviews consist of updating program goals and objectives and measuring service levels to determine effectiveness. For further information, contact:

Charles E. Hill, Budget and Research Director  
251 West Washington Street, Phoenix, Arizona 85003  
(602) 262-4808

Fremont, California (115,000), has developed a work planning and performance monitoring system. Through the use of industrial engineering techniques and operational analysis, work scheduling systems have been developed for recreation, parks maintenance, planning, and building inspection. This system supports Fremont's approach to Management by Objectives, which requires program managers to submit a program goal, a set of results expected within that program, and work load data for the coming year. For further information, contact:

Art Lorenzini, Administrative Assistant  
39700 Civic Center Drive, Fremont, California 94538  
(415) 796-3438

Jacksonville, Florida (565,000), has developed a resource management system based on the determination of unit costs for municipal services. Unit costs are calculated by measuring the time required to perform essential work and relating these measures to personnel requirements. This system has resulted in the elimination of 365 permanent positions at an annual savings of \$2.2 million, and provides management with continuing controls for budgeting and measuring performance. For further information, contact:

Weldon E. Laiche, Chief, Resource Management Group  
Room 1107, City Hall, Jacksonville, Florida 32202  
(904) 633-3316

Nashville-Davidson County, Tennessee (500,000), has tested effectiveness measures for several service areas, including police, fire, transportation, refuse collection, street cleanliness, wastewater treatment, water supply, libraries, and parks and recreation. For further information, contact:

Tom Finnie, Assistant Director of Finance  
1018 Stahlman Building, Nashville, Tennessee 37201  
(615) 259-6151

Palo Alto, California (56,000), has established a service management system, which has involved the analysis of citizens' needs and the development of effectiveness measures for the police and recreation departments. For further information, see

Report #19127, page 111

Savannah, Georgia (113,350), has developed a responsive services program to achieve an acceptable level of livability in each neighborhood (as opposed to providing a uniform level of service throughout the city). Trained observer techniques are used to measure the effectiveness of services in each neighborhood. Neighborhoods are compared to each other and to overall standards set for the city. Improvements neces-



sary to correct deficiencies are also documented. For further information, see:

Report #19135, page 111

■ The Urban Institute and the International City Management Association have developed a set of measures of effectiveness (measures of service quality and impact) for solid waste collection and disposal, recreation opportunities, library services, police and fire protection, local transportation services, water supply, wastewater treatment, and handling of citizen complaints/requests for service. These measures have been tested in Nashville-Davidson County, Tennessee, and St. Petersburg, Florida. For further information, see:

Report #19143, page 111

## IMPROVEMENT PROGRAMS

■ Sunnyvale, California (105,000), has completed a performance auditing project with a private accounting firm and the U.S. General Accounting Office. An audit guide for public safety (police and fire) services was developed, and specific objectives and an information system were identified for each program. Program managers use monthly audits as a management tool throughout the year. For further information, contact:

Camille Cates, Intergovernmental Relations Officer  
P.O. Box 607, Sunnyvale, California 94088  
(408) 739-0531 extension 247. Report #19119 and #18554

Orange County, California (1,680,000), has established a management audit program involving comprehensive management evaluation of departmental activities in terms of legal compliance, efficiency of operations, and program effectiveness. These departmental audits are geared more toward evaluation of performance than toward financial records. The management audits are occasionally supplemented by a manpower analysis program with work measurement standards which are used to develop recommendations on staffing patterns. For further information, contact:

Kenley Mays, Associate Administrative Officer  
515 North Sycamore, Santa Ana, California 92701  
(714) 834-3727

■ San Diego County, California (1,600,000), has established work standards in selected maintenance activities including vehicle, gardening, facilities, and road maintenance. For further information, contact:

Gerald Wilson, Assistant Chief Administrative Officer (Acting)  
5555 Overland Avenue, San Diego, California 92123  
(714) 565-5411. Report #18570, page 114

■ San Diego, California (775,000), has analyzed the operations of the equipment division of the general services department and the park division of the park and recreation department. Time guidelines and staffing requirements have been determined and a weekly productivity performance reporting system has been installed. For further information, contact:

Ron McClendon  
202 West C Street, San Diego, California 92101  
(714) 236-6544. Report #18627 and #18600, page 114

Los Angeles County, California (7,032,000), has established a productivity improvement program that is based on the use of industrial engineering techniques. Inaugurated in 1965, the program has involved 17 departments and 15,000 employees and has resulted in a savings of \$131 million. For further information, contact:

E. S. Evans  
Room 713, Hall of Administration, Los Angeles, California 90012  
(213) 974-1871

Phoenix, Arizona (667,846), has established an operations analysis division within the budget and research department. Charged primarily with developing time standards to measure manpower utilization and with improving operating procedures, the division has set standards for over 40 percent of the city's positions. For further information, contact:

Harry Kelman, Operations Analysis Administrator  
251 West Washington Street, Phoenix, Arizona 85003

Miami, Florida (334,900), is conducting a management personnel system study which includes the development of the Management Analyst Intern Program. The program is designed to develop in-house management analysis capability. Analysts have identified and assisted in the implementation of improvements in the building inspections and finance departments. For further information, contact:

Paul Andrews, City Manager  
3500 Pan American Drive, P.O. Box 330708, Miami, Florida 33133  
(305) 579-6040. Report #19437 and #19429, pages 113 and 114

Santa Rosa, California (65,000), has trained several staff members in techniques of assessing productivity levels and identifying improvement opportunities. Measurement studies have been made of the parks and recreation department and the field services division of the public works department. For further information, contact:

Michael Gleason, Assistant to the City Manager  
P.O. Box 1678, Santa Rosa, California 95403  
(707) 528-5361

## FINANCE

### Cash Management

Baltimore County, Maryland (681,181), bid competitively for county banking services and was able to reduce the number of its accounts from 51 to 10, with a significant reduction in the average daily balance maintained. The reduction in bank accounts has enabled the office of finance to have more control of cash balances in the depositories. The increase in investment earnings as a result of this new program is expected to be between \$50,000 and \$100,000 (depending on interest rates). For further information, contact:

Alan S. Ketterman, Finance Program Supervisor  
111 West Chesapeake Avenue, Baltimore, Maryland 21204  
(301) 494-2490

### Expenditure Analysis

Miami Valley Regional Planning Commission has identified all governmental expenditures made in behalf of the citizens of the Dayton/Montgomery County area, including the 66 local units of government, direct State and Federal expenditures, and approximately 125 nongovernment agencies which utilize government funds. These expenditures have been categorized (by source) in 50 community problem classifications. For further information, contact:

Jay F. Richmond, Project Manager  
333 West 1st Street, suite 500, Dayton, Ohio 45402  
(513) 223-6323

### Records Management

Rockville, Maryland (41,564), has converted all financial reporting data to microfiche from computer printouts, thereby greatly reducing the storage space required (on desks and in file cabinets). While there was an initial investment for microfiche readers and the software for the conversion process, this has been more than offset by the cost avoidance for the cabinets and office space that would have been required for future printout storage. For further information, contact:

Gordon Siebert, Budget Analyst  
City Hall, Rockville, Maryland 20850  
(301) 424-8000

## ANALYSIS OF FUTURE PROGRAM IMPACTS

Lakewood, Colorado (140,000), has developed a capital improvement programming system which involves analysis and rating of capital project requests with respect to several categories: legal compliance, impact on public health, public support, quality and economy of services, and relationship to the comprehensive plan. Each capital project request must include an operating budget impact statement, including estimates for personnel, operating and maintenance supplies, charges and services, and capital outlay. For further information, contact:

Ray S. Wells, City Administrator  
1580 Yarrow Street, Lakewood, Colorado 80215  
(303) 234-8605

Clearwater, Florida (52,000), has enacted an ordinance which requires detailed community impact statements for all projects exceeding \$500,000. These statements are designed to guide the city's orderly development by assessing in advance the impact of development on many key services and environmental areas. For further information, contact:

Picot Floyd, City Manager  
P.O. Box 4748, Clearwater, Florida 33518  
(813) 442-6231

Walnut Creek, California (46,000), requires that all city departments submit a maintenance impact statement for each new program or capital project. This requirement necessitates an analysis of the total cost of proposed programs and, more important, provides the city's maintenance staff with an opportunity to propose modifications to reduce maintenance costs. For further information, contact:

David Finigan, Public Service Director  
1445 Civic Drive, Walnut Creek, California 94596  
(415) 935-3300

Phoenix, Arizona (667,846), has established a uniform reporting system which requires that a financial impact statement accompany all staff reports proposing new programs, program modifications, or new capital projects. For further information, contact:

George Flores, Management Assistant  
251 West Washington, Phoenix, Arizona 85003  
(602) 262-4846

## INFORMATION SYSTEMS

Downers Grove, Illinois (38,776), integrates the village's goals and objectives into the budget process in two ways. First, the manager reviews departmental budgets in light of the objectives. Second, departmental activities are divided into "cost centers" to which specific revenues are related. Throughout the year the departmental manager monitors both expenditures and revenues attributed to those cost centers. This system places on departmental managers the responsibility for accomplishing specific tasks with limited resources. For further information, contact:

James Griesemer, Village Manager  
Village of Downers Grove, Downers Grove, Illinois 60515  
(312) 964-0300

Sunnyvale, California (104,000), has developed an integrated municipal information system. System modules include general accounting, personnel/payroll, utility accounting, equipment control, library, and public safety. For further information, contact:

Camille Cates, Intergovernmental Relations Officer  
P.O. Box 607, Sunnyvale, California 94088  
(408) 739-0531, extension 247

Ten cities in suburban Minneapolis-St. Paul, Minnesota, have developed and implemented a cooperative local government information system (LOGIS) under a joint powers agreement. The members share developmental and hardware costs equally and pay individually for the time used on the central computer. Input is made directly from city hall access terminals and telephone lines. Output is produced at data headquarters in Minneapolis and delivered by courier. Present applications include payroll, utility billing, equipment inventory, and financial management. For further information, contact:

Don Poss, City Manager  
6301 Shingle Creek Parkway, Brooklyn Center, Minnesota 55430  
(612) 561-5440

## DATA PROCESSING

### Streamlining Operations

Dallas, Texas (844,000), has developed several work flow changes in data processing operations for the financial control division. The changes include: establishing a library of sub-routines commonly used by financial control programmer analysts; periodically taking inventory of the source decks to eliminate obsolete programs; and involving programmer/analysts intensively in the scheduling process for their projects. For further information, contact:

Roy L. Allen, Director of Data Services  
Municipal Building, Room 201, Dallas, Texas 75201  
(mail inquiries only, please)

### Systems Design

San Jose, California (446,000), trained its city staff in systems design work in order to update its computer system. The vested interest of the employees in the system has been an important benefit resulting from their participation in its design. For further information, contact:

Jerome Weiss, Science Adviser to San Jose  
801 North First Street, San Jose, California 95110  
(408) 277-4000 extension 4220

### Five-Year Plan

Garland, Texas (118,000), has developed a five-year data processing plan which proposes that each of the city's 23 departments has direct on-line display and printer terminal access. Emphasis has been placed on services with high public visibility and benefits. Present applications include: personnel, budget, accounting, police, citizen complaints and requests, libraries, wastewater collection, water distribution, traffic control, and electric utility/energy management system. Annual savings are estimated at nearly \$1 million. For further information, contact:



Charles E. Duckworth, City Manager, or  
Fred G. Greene, Information Systems Director  
City Hall, Garland, Texas 75040  
(214) 272-2511

### Land Use Information Systems

San Jose, California (696,769), has used Santa Clara County's computerized Geographic Base File Dual/Independent Map Encoding (GBF/DIME) system to maintain inventories of residential property and student population for forecasting future school enrollments. For further information, contact:

Richard W. Renshaw, Santa Clara County Center for Urban Analysis  
70 West Hedding Street, San Jose, California 95110  
(408) 299-3285

San Diego, California (696,769), has used GBF/DIME to develop geographic profiles of public utility users in order to update population estimates. The profiles have been automatically geocoded to census tracts and other geographical units. They have also been used to evaluate alternative locations for new public facilities. For further information, contact:

Robert B. Hogan, Comprehensive Planning Organization  
1200 3rd Avenue, San Diego, California 92101  
(714) 233-5211

Philadelphia, Pennsylvania (1,949,000), has used GBF/DIME as a master geocoding unit in the development of a land use file at the city block level. Philadelphia is also using GBF/DIME to determine pupil eligibility for school busing. For further information, contact:

Walter K. Johnson, Delaware Valley Regional Planning Commission  
Penn Towers Building, Philadelphia, Pennsylvania 19013  
(215) 207-3000

Albuquerque, New Mexico (243,751), has geocoded motor vehicle registrations to determine the need for health care clinics in areas with insufficient transportation. For further information, contact:

James R. Calhoun, Middle Rio Grande Council of Governments  
505 Marquette Avenue, N.W., Albuquerque, New Mexico 87101  
(505) 243-2819

Real Estate Accounts

Dallas, Texas (844,000), has developed an on-line computer system which accesses real estate accounts by the address of the property. This system provides information on the legal description and geographic location of each parcel of property in the city. In addition, each account is assigned one of 153 real estate codes, and the task of sorting the accounts is now performed by the computer. For further information, contact:

Max E. Noller, Director of Revenue and Taxation  
Municipal Building, Room 101, Dallas, Texas 75201  
(mail inquiries only, please)

## PURCHASING

### Feedback Sheet with Bid Solicitations

Plainfield, New Jersey (46,900), has developed a feedback sheet to accompany solicitations for bids. From the information returned on the sheet, the city hopes to learn where prospective bidders most frequently learn of quotations for various services and products and why many prospective bidders fail to submit bids. Such information will lead to more competitive bidding and more effective use of advertising and solicitation expenditures. For further information, contact:

Lawrence Bashe, City Administrator  
515 Watchung Avenue, Plainfield, New Jersey 07061  
(201) 753-3227

### Cooperative Purchasing

West Milford Township, New Jersey (20,000), coordinates its annual order of paper supplies with the township board of education. The township averages savings of 30 percent over the cost of individual purchasing. For further information, contact:

John Terry, Township Manager  
1480 Union Valley Road, West Milford, New Jersey 07480  
(mail inquiries only, please)

Evanston, Illinois (80,000), joined with several other municipalities to purchase traffic tickets in 1975. Evanston saved 50 percent on its order and the smaller municipalities saved over 66 percent, with the added convenience of purchasing only the amount needed for 2 years. Without this joint venture, they would have had to purchase a 20-year supply at a higher unit price. For further information, contact:

Edward Verner, Purchasing Agent  
1501 Oak Avenue, Evanston, Illinois 60204  
(312) 475-3100, extension 261

Gainesville, Florida (64,500), has instituted a centralized purchasing system which has helped maximize savings through group and large quantity purchasing. For further information, contact:

Harold Farmer, City Manager  
City Hall, Gainesville, Florida 32601  
(904) 378-5381

### Inventory Control

Oak Ridge, Tennessee (28,300), has established a computerized inventory accounting system to maintain control and supply accounting information on 4,500 stock items and other materials purchased directly by users. The system generates output information for inventory control and develops information on materials cost for the maintenance accounting systems. For further information, contact:

Marian Oates, Data Processing Director  
Municipal Building, Oak Ridge, Tennessee 37830  
(615) 483-5671

### Affirmative Action Purchasing Program

Evanston, Illinois (80,000), has established an affirmative action purchasing program with four major requirements: (1) minority businesses must be included in all solicitations for services and materials purchased or contracted for by the city; (2) all contractors must actively solicit bids for subcontracting from minority businesses; (3) specific projects and commodities are reserved for bidding by minority business enterprises; and (4) the appropriate administrative departments must give the necessary assistance to minority businesses in the preparation and submission of bids. For further information, contact:

T. R. Carlson, Deputy City Manager  
1501 Oak Street, Evanston, Illinois 60204  
(mail inquiries only, please)

### Proposals for Professional Services

Worthington, Ohio (16,500), has established a board composed of affected department heads to select area firms to render professional services to the city. The board selects local firms after reviewing the proposals submitted and conducting personal interviews. The board has screened local firms for several projects, including a community center, a recreational complex, and annual street improvements. For further information, contact:

E. B. Elder, Assistant to the City Manager  
789 High Street, Worthington, Ohio 43085  
(614) 436-3100

### Insurance

Plainfield, New Jersey (46,900), self-insures for workmen's compensation by contracting with a firm to administer the processing of claims and purchasing of reinsurance for large losses. The city maintains a cash pool to pay claims processed by the administrative agent on a monthly basis. The cost of the administration of the plan, reinsurance, and payment of claims is well below the cost of insurance coverage. In addition, the city gets a return on the investment of the appropriation to pay claims. For further information, contact:

Lawrence Bashe, City Administrator  
515 Watchung Avenue, Plainfield, New Jersey 07061  
(201) 753-3227

### Telephone Service

Rockville, Maryland (41,564), has utilized the telephone company's free consultation service and has undertaken a complete investigation of the city's telephone costs by obtaining the telephone company's records listing every piece of the city's equipment and the charge per piece. Savings in the first 6 months offset charges for equipment changes (the only expense in the entire process). Rockville cut 5 percent (\$300) from its monthly phone bill. For further information, contact:

Gordon Siebert, Budget Analyst  
City Hall, Rockville, Maryland 20850  
(301) 424-8000

### Institutional Meals

Burnaby, British Columbia (139,600), implemented an improved method of feeding prisoners which involves the purchase of precooked frozen meals, storage of the meals in a deep freeze unit, and finally thawing of the meals in a microwave oven as they are needed. The yearly cost of feeding prisoners has been cut in half. For further information, contact:

Melvin J. Shelley, Municipal Manager  
4949 Canada Way, Burnaby, British Columbia, Canada V5G 1M2  
(604) 294-7110

## CLERICAL SUPPORT

### Printing

Dallas, Texas (844,000), found that frequent interruptions of the cutter operator in the print shop caused unnecessary delay in getting press-size paper to the press operators. To utilize the cutter operator's time more effectively, the trim jobs were shifted to the bindery. As a direct result, there have been no further delays in supplying press-size paper to the press operators and, consequently, print shop production has increased. For further information, contact:

E. O. Jantz, Director of Purchasing  
Municipal Building, Room 401, Dallas, Texas 75201  
(mail inquiries only, please)

### Reproduction

Phoenix, Arizona (667,846), has established a centralized copy center to perform large volume duplication work. In addition, 12 high-speed duplicators located in various departments have been replaced by slower, less expensive electrostatic copiers. For further information, contact:

Jim Thumma, Operations Analyst  
251 West Washington Street, Phoenix, Arizona 85003  
(602) 262-4834

### Forms Standardization

Mt. Kisco, New York (9,500), has developed a standard permit and license form applicable to nearly all departments. This standardization has eliminated 16 varied license and permit forms, thus cutting printing costs and eliminating some clerical positions. For further information, contact:

Robert F. Ledger, Jr., Village Manager  
104 Main Street, Mt. Kisco, New York 10549  
(914) 241-0500

## Word Processing

Fort Worth, Texas (393,476), has installed a word processing center which has increased efficiency and enabled the elimination of six clerical positions. For further information, contact:

Nona Young, Director, Word Processing Center  
1000 Throckmorton, Fort Worth, Texas 76102  
(817) 335-7211

Plainfield, New Jersey (46,900), has established a centralized word processing center which is accessed by the city's centrex telephone system. This reorganization has led to the elimination of 14 clerical positions through attrition and transfers, and has enabled the city to avoid hiring any new clerical personnel for more than 2 years. For further information, contact:

Lawrence Bashe, City Administrator  
515 Watchung Avenue, Plainfield, New Jersey 07061  
(201) 753-3227

Lawndale, California (24,900), has replaced all departmental secretaries and clerk-typists with a centralized word processing center which utilizes magnetic editing/typewriting equipment. The center is also responsible for personnel record keeping and processing, office supply purchasing, reproduction, central filing, central reception, and telephone switchboard. For further information, contact:

Al Thompson, Administrative Services Coordinator  
P.O. Box 98, Lawndale, California 90260  
(213) 973-4321



## PERSONNEL

### Recruitment

Fremont, California (115,000), has established a recruitment and selection reporting system which focuses on reducing the time it takes to fill positions. Through the use of streamlined procedures, automated test scoring, continuous and shared recruitment, reduction of classifications, and an up-to-date position control report, recruitment time has been reduced from 4.5 months to 2.5 months. For further information, contact:

Art Lorenzini, Administrative Assistant, or  
Gary Goelitz, Administrative Assistant  
39700 Civic Center Drive, Fremont, California 94538  
(415) 796-3438

■ Orem City, Utah (38,000), has used an "assessment lab" to select two top officers for the city's fire department. The process involved simulation and gaming techniques combined with interviews and written tests. A panel graded applicants in nine performance areas. The techniques have been adapted for use in other city departments. For further information, contact:

Barry Bartlett, Assistant City Manager  
P.O. Box 247, Orem City, Utah 84057  
(801) 225-1550. Report #19186, page 111

### Employee Incentives

Winfield, Kansas (11,000), allows partial payment for unused sick leave. The project has been undertaken to provide an incentive for younger employees and a bonus for older employees; 25 percent of city employees have qualified for the program. For further information, contact:

Ron D. Musson, City Manager  
Box 646, Winfield, Kansas 67156  
(316) 221-4010

Nashville-Davidson County, Tennessee (500,000), is experimenting with an incentive program which offers employees an opportunity to win a cash prize for making suggestions on how the government can improve productivity. Several \$50 prizes have been awarded in the monthly

competition. To date, the average annual savings from each prize-winning suggestion have been \$2,500. For further information, contact:

Martha Groomes, Administrative Analyst  
Budget Office, 1018 Stahlman Building, Nashville, Tennessee 37201  
(615) 259-6601

### Training

Santa Rosa, California (65,000), has held three 2-day training seminars for executive and middle managers. Discussion topics at these seminars have included general management responsibilities, communications, and work scheduling. For further information, contact:

Al Wiers, Personnel Director  
P.O. Box 1678, Santa Rosa, California 95403  
(707) 528-5274

Simi Valley, California (69,700), has established a job rotation program for administrative assistants assigned to each of the city's five departments. Every 12 to 18 months, each assistant moves to another department; this broadens each department's perspective and develops each assistant's managerial experience. For further information, contact:

Randall King, Director of Human Resources  
3200 Cochran Street, Simi Valley, California 93065  
(805) 522-1333

Sunnyvale, California (105,000), has instituted a job rotation program for all management personnel. Every management person, from first line supervisor to department head, receives a rotating assignment for a 2- to 3-month period in an entirely different position in another department. For further information, contact:

Camille Cates, Intergovernmental Relations Officer  
P.O. Box 607, Sunnyvale, California 94088  
(408) 739-0531

Mankato, Minnesota (31,000), has developed an in-service training program for management and middle management personnel. The two phases of the program deal with: (1) problem-solving skills and improvement of communications within and between departments, and (2) principles of Management by Objectives and development of new management objectives. Regarded with caution at first by some employees, the program received favorable reaction upon implementation. For further information, contact:

William Bassett, City Manager  
202 East Jackson Street, Mankato, Minnesota 56001  
(507) 387-3161

### Variation in Work Hours

Simi Valley, California (69,700), has an optional 4-10 program within its planning department. All employees in the department have tried 4-10 scheduling, while approximately half have chosen to remain on the alternative schedule permanently. For further information, contact:

Randall King, Director of Human Resources  
3200 Cochran Street, Simi Valley, California 93065  
(805) 522-1333

Los Angeles, California (2,816,000); has conducted a 1-year 4-10 experiment involving selected employees. Positive results include: better morale; reduced weekly commuting time and expense; increased employee carpooling and bus usage; reduced sick leave usage; and some delegation of responsibility to lower level supervision. Negative factors include: internal and external communication problems; lack of adequate supervision during extended hours; shortages of trained staff at public counters; and increased administrative costs. For further information, contact:

C. Erwin Piper, City Administrative Officer  
Room 300, 200 North Main Street, Los Angeles, California 90012  
(213) 485-2885

### Leave

Westminster, Colorado (19,000), has combined all types of employee leave into one "general leave" system. All time away is charged against an employee's allotted general leave. Frequent absenteeism reduces vacation and sick time, while good attendance qualifies an employee for bonus vacation time. For further information, contact:

Alan P. Miller, Personnel Officer  
3031 West 76th Avenue, Westminster, Colorado 80030  
(303) 429-1546

## Safety

Bloomington, Illinois (500,000), has appointed a safety affairs director and developed a safety program for all municipal employees. Safety committees have been created and inspection procedures have been established for all municipal buildings and facilities. For further information, contact:

James R. Hepperly, Safety Coordinator  
109 East Olive Street, Bloomington, Illinois 61701  
(309) 828-7361

Oshkosh, Wisconsin (53,000), offers its employees a safety manual that covers such topics as office safety, material handling, power tools, scaffolding, and ladders. For further information, contact:

Norbert Svatos, Personnel Officer  
215 Church Avenue, Oshkosh, Wisconsin 54901  
(414) 424-0268

Tucson, Arizona (263,000), has issued a Loss Prevention Manual to all municipal employees. The manual specifies the responsibilities of department and division heads, supervisory personnel, and other employees within Tucson's loss control program. Other topics covered in the manual include the organization of safety committees, investigation and reporting procedures for accidents, and occupational safety and health inspections. For further information, contact:

Joel D. Valdez, City Manager  
250 West Alameda Street, Tucson, Arizona 85703  
(602) 791-4204. Report # 19194, page 111

## Labor Relations

Oak Lawn, Illinois (62,245), has reached an explicit agreement with various municipal employee associations to the effect that economic determinations negotiated with the police patrolmen would automatically be extended to all other employee groups. Prior to this agreement, each employee unit attempted to build on the most recent settlement reached with another unit, which resulted in spiraling levels of settlement and serious employee relations problems. Both the economic problems and the problems with employee relations have been alleviated by this agreement. For further information, contact:

Kenneth M. McDonald, Village Manager  
5252 West James Street, Oak Lawn, Illinois 60453  
(mail inquiries only, please)

### Team Management

Scottsdale, Arizona (92,000), has developed a team management approach to accomplish specific functions that overlap into several service areas. For example, the traffic engineer, the city engineer, the building superintendent, and the director of planning implementation have worked on a "development team," with the result that each program affecting private development complements the other without duplication of effort. For further information, contact:

Frank Aleshire, City Manager  
3939 Civic Center Plaza, Scottsdale, Arizona 85003  
(602) 994-2422

### Staff Assignments

Fremont, California (115,000), has established a project assignment and reporting system to aid the city manager and department heads in monitoring the status of city council action/staff responsibility assignments, special project assignments, and interdepartmental assignments. The system also aids department heads and division supervisors in monitoring the status of intradepartmental assignments and clarifies project reporting responsibilities for departments, divisions and sections. For further information, contact:

Art Lorenzini, Administrative Assistant  
39700 Civic Center Drive, Fremont, California 94538  
(415) 796-3438

### Employee Participation

Mt. Pleasant, South Carolina (6,000), interviews all employees about to terminate city employment. Responses have helped to identify aspects of the job environment which can be improved. For further information, contact:

Ted Shogray, Administrative Assistant to the Mayor  
P.O. Box 745, Mt. Pleasant, South Carolina 29464  
(803) 884-8517

Tacoma Washington (154,580), has conducted a government employee attitude survey on pay, promotion, job content, and overall employee satisfaction. The survey was conducted in conjunction with the National Training and Development Service for State and Local Government, and results will be used to restructure various positions. For further information, contact:

Dwight Faust  
Room 1133, County-City Building, Tacoma, Washington 98402  
(206) 593-4860

## CITIZEN INVOLVEMENT IN THE GOVERNMENTAL PROCESS

### Utilizing Community Expertise

Madison, New Jersey (16,700), has identified citizens whose expertise relates to specific municipal problems and has enlisted their participation on problem-solving committees. For further information, contact:

Arnold C. Matthies, Borough Administrator  
Madison, New Jersey 07940  
(201) 377-8000

Worcester, Massachusetts (176,600), has established a steering committee to find executives in private industry who will volunteer their services to the city on a part-time basis. More than 20 volunteer executives have contributed approximately 900 hours to the development of a financial control and reporting system (due for implementation in July 1976). An inventory analysis of the central and police garages has also been conducted under the plan. For further information, contact:

Francis McGrath, City Manager  
City Hall, Worcester, Massachusetts 01608  
(617) 798-8151

Worthington, Ohio (16,500), has benefited from volunteer citizen talent in the planning, financing, and construction of major improvements for a public park. A local civic organization donated both money and the skills of two architects who worked with city staff to design park improvements. For further information, contact:

E. D. Elder, Assistant to the City Manager  
789 High Street, Worthington, Ohio 43085  
(614) 436-3100

### City-University Relations

Little Rock, Arkansas (139,700), frequently interfaces with the Department of Industrial Engineering at the University of Arkansas to help solve city problems. University and city personnel have also worked together to revise several university courses to better reflect public sector needs and concerns. For further information, contact:

Roger Lubin, Technology Agent  
City Hall, Little Rock, Arkansas 72201  
(501) 376-6111, extension 207

Scottsdale, Arizona (80,000), holds regular working meetings on new approaches to municipal problems. These are attended by representatives of several academic disciplines and city departments. For further information, contact:

Frank Aleshire, City Manager  
3939 Civic Center Plaza, Scottsdale, Arizona 85003  
(602) 994-2422

Worcester, Massachusetts (176,600), participates with a local university in a program which requires students to spend from 7 to 14 weeks in various city departments or private industry. For further information, contact:

Francis McGrath, City Manager  
City Hall, Worcester, Massachusetts 01608  
(617) 798-8151

### Citizen Participation

Fond du Lac, Wisconsin (36,500), has held citizen meetings in inner-city school cafeterias to solicit the participation of low-income residents. The purpose of the meetings has been to determine community needs, explore alternatives, and recommend priorities for investing Federal community development block grant funds. The recommendations were narrowed to 13 priorities, sent to the community development committee for review, and forwarded to the city council. This procedure gave all citizens the opportunity to contribute ideas to the program planning process. For further information, contact:

Myron J. Medin, Jr., City Manager  
P.O. Box 150, Fond du Lac, Wisconsin 54935  
(414) 922-2600

Sunnyvale, California (105,000), has institutionalized several procedures to incorporate citizens' priorities into the policy-making process. Stemming from a citizen survey taken to surface issues of greatest concern, permanent citizen task forces on specific issues have been formed and annual citizen workshops have been established for policy review. For further information, contact:



Camille Cates, Intergovernmental Relations Officer  
P.O. Box 607, Sunnyvale, California 94088  
(408) 739-0531, extension 247. Report #19151, page 112

Plainfield, New Jersey (46,900), has established a mayor's citizen budget advisory committee, a group of 15 citizens who make recommendations in the preparation and review of the annual operating budget. The committee has had a major impact in converting the city from a line item budget to one involving service objectives. For further information, contact:

Lawrence Bashe, City Administrator  
515 Watchung Avenue, Plainfield, New Jersey 07061  
(201) 753-3227

Lawndale, California (24,800), sponsored a 3-day citizen policy conference to formulate basic goals and objectives as the foundation for developing the city's general plan. Sixty-five residents participated. After consideration and modification by the council and the planning commission at public hearings, the goals were adopted as the basis for future budget and planning actions. For further information, contact:

Lloyd d llamas, City Administrator  
P.O. Box 98, Lawndale, California 90260  
(213) 973-4321

Helena, Montana (22,700), has established a 27-member committee to help assure citizens a voice in the governing process. For further information, contact:

Alan Thelen, City Manager  
Civic Center Building, Helena, Montana 59601  
(406) 442-9920

Cleveland Heights, Ohio (61,000), used city staff members to organize street associations to strengthen the city's communication with the community. A "Street Association Handbook," summarizing the process of how to organize and maintain neighborhood groups, was then compiled. For further information, contact:

Evelyn Kosicki, Assistant to the City Manager  
2953 Mayfield Road, Cleveland Heights, Ohio 44118  
(216) 321-0100

Salem, Oregon (77,700), has assigned community service officers to neighborhood planning groups to develop solutions for particular city problems. For further information, contact:

Robert S. Moore, City Manager  
City Hall, Salem, Oregon 97301  
(503) 588-6254

Independence, Missouri (120,000), has organized neighborhood councils to increase citizen participation in and understanding of local government. Each council elects a representative who will keep in close contact with a specific city department; this has resulted in improved communications. For further information, contact:

Terry Snapp, Neighborhood Council  
501 West Lexington, Independence, Missouri 64050  
(816) 833-4225

Hamilton, Ohio (67,900), has purchased a bus and converted it to the Bring Ideas to City Hall (BITCH) bus. The bus tours the city, requesting citizen suggestions, preferences, and comments on possible uses of Federal community development funds. The cost of the project is estimated at less than \$2,000. Increased government credibility and responsiveness, as well as increased citizen input in the governmental process, has been the result. For further information, contact:

Hal Shepherd, Assistant to the City Manager  
Municipal Building, Hamilton, Ohio 45011  
(513) 895-7401

#### Handling Citizen Complaints/Requests for Service

A number of jurisdictions have set up service and information centers as clearinghouses for complaints and service requests. The centers handle routine questions directly and channel larger problems to the appropriate department. The centers also follow up on requests and complaints to ensure satisfactory service. For further information, contact:

City of Kissimmee (7,1119)  
Earl H. Parmor, Jr., City Manager  
P.O. Box 340, Kissimmee, Florida 32741  
(305) 847-2821

County of Baltimore (621,000)  
Christine Hafford, Supervisor, Community Affairs  
County Office Building, Room 103, Towson, Maryland 21204  
(301) 494-3650

Livonia, Michigan (110,000), has established a complaint service through the Livonia Office of Volunteer Energies (L.O.V.E.) staffed by 30 volunteers. The volunteers are given an intensive 5-week training program, covering each city department and its responsibilities, social agencies for citizen referrals, local recreation programs, and local clubs and organizations. The training also focuses on communications techniques. For further information, contact:

Joan Duggan, Program Director  
3301 Five Mile Road, Livonia, Michigan 48154  
(313) 421-2000, extension 221

Lancaster, South Carolina (9,000), has established a "We Care" program designed to foster better communication with the citizens. One facet of the program is the use of Fix-A-Grams, forms city employees turn in when they note problems (potholes, missing stop signs, etc.) anywhere in the city. Forms are collected daily and routed to the appropriate department. For further information, contact:

Paul S. Paskoff, Assistant City Manager  
P.O. Box 190, Lancaster, South Carolina 29720  
(mail inquiries only, please)

Greenville, South Carolina (61,200), has developed the Hungry Ear program to respond to citizen complaints. The program provides "ear boxes" at various locations to make it easier for citizens to file complaints. In addition, the Hungry Ear acts as a referral system for the entire county of Greenville. For further information, contact:

John Dullea, City Manager  
214 South Main Street, Greenville, South Carolina 29602  
(803) 242-1250

Madera, California (18,000), has developed a form which is forwarded from a department receiving a complaint to the department resolving the complaint. All forms are then reviewed by the city administrator. As a result, there have been far fewer complaints about lack of responsiveness to citizen concerns. For further information, contact:

John L. Baudek City Administrator  
205 West 4th Street, Madera, California 93637  
(209) 674-8802, extension 30

Raleigh, North Carolina (146,073), has a "Feedback" program to handle citizen complaints and process suggestions or requests for information. The requests are screened by the municipal receptionist who routes them to the proper department for action. Records are kept on the disposition of the complaints/suggestions and figures are compiled on the numbers of contacts and departments involved on a monthly "Feedback"

report. For further information, contact:

Joyce Pursley Maret, Research and Information Officer  
P.O. Box 590, Raleigh, North Carolina 27602  
(919) 755-6194

Plainfield, New Jersey (46,900), has established an office attached to the Human Relations Commission that receives and resolves citizen complaints. The office acts as an ombudsman in helping local residents deal with governmental agencies and helping citizens when no private or public agency has direct responsibility. The deputy city administrator, who is in charge of this office, analyzes the substance and trend of the complaints and identifies the policy changes necessary to eliminate the recurrence of similar complaints. For further information, contact:

Lawrence Bashe, City Administrator  
515 Watchung Avenue, Plainfield, New Jersey 07061  
(201) 753-3227

## TECHNOLOGY TRANSFER

Tacoma, Washington (154,600), has established a technology transfer center through an operating relationship with the National Science Foundation and the aerospace industry. For further information, contact:

Regina Glenn, Technology Transfer  
County-City Building, Room 255, Tacoma, Washington 98402  
(206) 593-4716

California Innovations Group, a California nonprofit organization, is a cooperative venture undertaken by cities, high technology industries, and the National Science Foundation. The organization has placed science advisers in 11 California cities to determine how technology can be used to improve municipal cities. For further information, contact:

D. M. La Barre, California Innovations Group  
1671 The Alameda, Suite 200, San Jose, California 95126  
(mail inquiries only, please)

## PUBLIC SAFETY

■ This symbol indicates that an in-depth report on the project is available through the Report Clearinghouse. See pages 111-115 for descriptions of the reports and order forms.

For the past three years, the Guide to Productivity Improvement Projects has been prepared by the International City Management Association for the National Center for Productivity and Quality of Working Life and made available free with Center support. With the publication of this third edition, the Guide is on its own. In the future it will be published by ICMA and distributed on a subscription basis only. To receive forthcoming editions and updates of the Guide, contact:

Productivity Guide  
International City Management Association  
1140 Connecticut Avenue, N.W.  
Washington, D.C. 20036

## PUBLIC SAFETY OFFICERS/DEPARTMENTS

### Completely Consolidated Public Safety Departments

Durham, North Carolina (95,400), has created a public safety department which combines fire and police services. Public safety stations are staffed by five-man crews on 8-hour shifts, with four crews based at each station. Crews consist of a supervisor, two patrolmen, and two fire truck operators. In the event of a fire, the truck and patrol cars are dispatched to the scene. Each patrol car contains the equipment necessary to handle three small fires or to join a fire fighting team. For further information, contact:

Esai Berenbaum, Public Safety Director  
P.O. Box 2251, Durham, North Carolina 27701  
(919) 688-9220

Several other cities have consolidated police and fire operations, creating public safety departments. The cities listed below may be a resource to jurisdictions considering such an undertaking. For further information, contact:

City of Cayce (10,000)  
Ellie Heustess, Jr., City Manager, or  
Lavern Jumper, Public Safety Director  
P.O. Box 4, Cayce, South Carolina 29033  
(803) 796-9020

City of Fraser (11,900)  
William Blaskis, City Administrator  
3300 Garfield Road, Fraser, Michigan 48206  
(313) 293-3100

City of Sunnyvale (105,500)  
John E. Dever, City Manager  
P.O. Box 607, Sunnyvale, California 94088  
(408) 739-0531

El Dorado, Kansas (12,308), has also consolidated its police and fire operations. Police respond to fires on their beat with specially equipped vehicles; firemen supervise the jail, do bookings, and conduct security inspections for residents. For further information, contact:

Victor S. Marshall, Director, Public Safety Department  
220 East 1st Street, El Dorado, Kansas 67042  
(mail inquiries only, please)

## Limited Cross-Training between Police and Fire Departments

Several cities have cross-trained some employees in both fire and police activities. For further information, contact:

City of Winston-Salem (132,900)  
Paul Crim, Fire Chief  
P.O. Box 2511, Winston-Salem, North Carolina 27102  
(919) 727-2193

City of Flagstaff (26,117)  
Charles McClain, City Manager  
City Hall, Flagstaff, Arizona 86001  
(mail inquiries only, please). Report #19232, page 112

Plainfield, New Jersey (46,900), operates a Fire Safety Patrol, which consists of teams of fire fighters who patrol the city in a van. This patrol supplements police patrol activities and has equipment that allows the members to handle small fires without a full engine crew. In addition, the Fire Safety Patrol provides other emergency assistance, while remaining on call for alarms within their fire district. For further information, contact:

Lawrence Bashe, City Administrator  
515 Watchung Avenue, Plainfield, New Jersey 07061  
(201) 753-3227. Report #18511, page 113

Shorewood, Wisconsin (16,000), has completed a 6-month experiment with its fire fighters during which they performed certain police auxiliary duties (house checks, general patrol, etc.) in exchange for wage parity. For further information, contact:

Shirl Abbey, Village Manager  
3930 North Murray Avenue, Shorewood, Wisconsin 53211  
(mail inquiries only, please)

Brown Deer, Wisconsin (12,000), requires by ordinance that all newly employed police officers be trained as auxiliary fire fighters. Squad cars are equipped with fire fighting equipment, enabling officers to respond to fires and take preliminary action if necessary. For further information, contact:

Gerald Schwerm, City Manager  
4800 West Green Brook Drive, Brown Deer, Wisconsin 53223  
(414) 335-5220



## POLICE SERVICES

### Manpower Deployment/Scheduling

As a result of sophisticated analysis of crime data, the following cities schedule patrol units according to each sector's rate of crime and accidents for that particular time period. For further information, contact:

City of Chesapeake (89,600)

R. A. Lakoski, Chief of Police, Department of Public Safety  
City Hall, Chesapeake, Virginia 23321  
(804) 547-6404

Village of Glenview (30,551)

Robert Van Deusen, Village Manager  
Village Hall, Glenview, Illinois 60025  
(312) 967-7211

City of Oxnard (86,000)

Oxnard Police Department  
210 South B Street, Oxnard, California 93030  
(805) 486-8355

De Kalb County, Georgia (473,000), has developed a Police Resource Allocation Package (PRAP), an automated system for manpower deployment. This system includes 4-day, 10-hour/day scheduling with shift overlaps during peak hours of demand and has the added benefit of providing evaluation indicators for individual, unit, and departmental performance. For further information, contact:

William Gaston, Senior Systems Analyst  
3630 Camp Road Complex, Decatur, Georgia 30031  
(404) 294-2323

Nederland, Texas (18,500), has converted to a 10-hour rotating patrol schedule which allows the department to concentrate manpower during the peak period of the day with overlapping shifts. For further information, contact:

Billy Neal, Chief of Police  
P.O. Box 1165, Nederland, Texas 77627  
(713) 722-4965

Rochester, New York (296,000), has established a team policing program whereby each criminal investigator is assigned to work with a unit of uniformed officers. For further information, contact:

Thomas F. Hastings, Chief of Police  
City Public Safety Building, Rochester, New York 14614  
(716) 428-7033

#### Scheduling Court Appearances for Police

Tacoma, Washington (154,600), has rescheduled traffic cases to allow police to testify in several cases during any one day. For further information, contact:

Court Administrator  
#232 County City Building, Tacoma, Washington 98402  
(206) 593-4683

Fort Lauderdale, Florida (158,000), has assigned an officer to the State Attorney's office. Police under court subpoena remain on call with this liaison officer rather than attending court each day. For further information, contact:

Sergeant Frank Schueler, Public Information Officer  
Fort Lauderdale Police Department, Fort Lauderdale, Florida 33312  
(305) 527-2415

#### Information Systems

Plainfield, New Jersey (46,900), has developed an on-line computer police information system that includes warrant listings, calls for police service, Uniform Crime Reports, and National Safety Council Reports. The system is linked to the State Crime Information Center, the National Crime Information Center, and the State Division of Motor Vehicles. In addition, terminals have been installed in the police departments of two smaller neighboring communities. With a single inquiry, the system provides information from county, State, and Federal banks. Costs are estimated at \$400 monthly. This includes telecommunications costs for linking local and State departments. For further information, contact:

Lawrence Bashe, City Administrator  
515 Watchung Avenue, Plainfield, New Jersey 07061  
(201) 753-3227

Peoria, Illinois (127,000), has installed an on-line information system (CADOLIS) which lists available vehicles, identifies officers on assignment, describes assignments, and records calls. It has the capability to record stolen cars, missing persons, and recent disturbances, and also has access to FBI files. For further information, contact:

Robert W. Wright, City Manager  
419 Fulton Street, Peoria, Illinois 61602  
(309) 672-8500

### Communications Systems

De Kalb County, Georgia (473,000), has purchased a telephone-typewriter for the police department to provide the deaf community with access to emergency assistance. For further information, contact:

Mary F. Lyons, Public Information Officer  
4400 Memorial Drive Complex, Decatur, Georgia 30032  
(404) 294-2545

Dodge City (14,120) and Ford County (22,587), Kansas, have combined their communications systems so that a single dispatcher unit notifies the nearest patrol force upon receiving a request for service. These jurisdictions have also combined records, jails, courts, and headquarters. For further information, contact:

Leland Brodbeck, City Manager  
City Hall, Dodge City, Kansas 67801  
(316) 225-1391

Five cities in Texas--Port Neches (10,900), Groves (18,100), Nederland (16,800), Pear Ridge (3,700), and Griffin Park (2,075)--have employed a joint police dispatch system since 1971. Calls for assistance in any of the five cities go through a central switchboard which dispatches the car nearest the incident. The cities contribute to the operation on a per capita basis. While the joint system has resulted in some cost savings, the principal benefit has been the improvement in service. For further information, contact:

D. B. Henson, City Manager  
City Hall, Nederland, Texas 77627  
(713) 727-2711

De Kalb County, Georgia (473,000), has purchased a mobile communications van for use in large-scale emergency operations. This allows the main dispatch facility to function normally for routine calls during such operations. For further information, contact:

Gary Nix, Communications Supervisor  
4400 Memorial Drive Complex, Decatur, Georgia 30032  
(404) 294-2828

San Mateo County, California (556,234), has established a microwave hookup among city managers, police and fire chiefs, and civil defense offices which can handle up to 10 conference calls. Transmission is via radio to avoid strain or dependence on telephone lines. For further information, contact:

Leland Horner, City Administrator  
City Hall, Millbrae, California 94030  
(415) 692-3500

Plainfield, New Jersey (46,900), has reduced the number of false fire alarms by replacing traditional fire boxes with emergency call boxes. In addition, pay phones with automatic access to an operator (without a coin) have been placed at locations where emergency requests are most often received. For further information, contact:

Lawrence Bashe, City Administrator  
515 Watchung Avenue, Plainfield, New Jersey 07061  
(201) 753-3227

Plainfield, New Jersey (46,900), has established a centralized communications center which provides all city, school, and Housing Authority telephone service, and all police and fire dispatching. All emergency communications are handled by civilian operators, 24 hours a day. The communications center is also part of the Civil Defense Emergency Center and provides a burglar alarm service for residents and businesses wishing a direct tie-in with police headquarters. For further information, contact:

Lawrence Bashe, City Administrator  
515 Watchung Avenue, Plainfield, New Jersey 07061  
(201) 753-3227

## Crime Prevention

Lancaster, South Carolina (11,000), provides businessmen and residents with security inspections upon request. Inspections are performed by police officers. For further information, contact:

Herbert L. Patrick III, City Manager, or  
A. H. McKeown, Chief of Police  
P.O. Box 190, Lancaster, South Carolina 29720  
(803) 283-9991

Burnaby, British Columbia (140,000), has instituted the Operation Identification Program, which involves the identification of valuables with engraving pens. For further information, contact:

Melvin J. Shelley, Municipal Manager  
4949 Canada Way, Burnaby, British Columbia, Canada V5G 1M2  
(604) 294-7103

Greensboro, North Carolina (160,000), has established the Shield of Confidence Program to encourage builders and apartment owners to comply voluntarily with security standards set by the city. Compliance merits a "shield" decal for the building. For further information, contact:

S. J. Staron, Police Department  
300 West Washington Street, Greensboro, North Carolina 27401  
(919) 373-2135

Deerfield, Illinois (18,876), has instituted a program to reduce vandalism, which includes trial of juveniles by peers, a parental responsibility ordinance, a community education program, and weekly newspaper publicity concerning the costs of vandalism. For further information, contact:

Norris Stilphen, Village Manager  
850 Waukegan Road, Deerfield, Illinois 60015  
(312) 945-5000

De Kalb County, Georgia (473,000), has established a crime prevention unit whose job is to encourage residents to make their homes burglar-proof. This effort involves advertising on local radio and television, in the newspaper, on paycheck stubs, and on bank statements. For further information, contact:

Mary F. Lyons, Public Information Officer  
4400 Memorial Drive Complex, Decatur, Georgia 30032  
(404) 294-2545

Glendale, Arizona (67,298), has developed an Operations Security Program to discourage burglaries. The program involves: (1) trained personnel who go from house to house to identify valuables with engraving pens and advise residents on security techniques; (2) a civilian specialist who addresses civic and social clubs on burglary prevention; and (3) two police officers who concentrate on burglary investigation. For further information, contact:

S. F. Van de Putte, City Manager  
P.O. Box 1556, Glendale, Arizona 85311  
(602) 931-5656

#### Prosecution of Suspected Drunk Drivers

Scottsdale, Arizona (80,000), utilizes a television camera at the station to film suspected drunk drivers. Of those filmed, 90 percent plead guilty to being drunk while driving. For further information, contact:

Walter Nemetz, Police Chief  
3939 Civic Center Plaza, Scottsdale, Arizona 85003  
(602) 994-2509

#### Word Processing Systems

Several cities have established word processing centers which enable officers in the field to call in reports to centrally located typists. This system has two advantages: officers spend more time on crime prevention and investigation, and typists produce reports more legibly and quickly. For further information, contact:

City of Gainesville (64,500)  
Harold Farmer, City Manager  
City Hall, Gainesville, Florida 32601  
(904) 378-5381

City of Janesville (46,000)  
Karl A. Samek, Assistant City Manager  
18 North Jackson Street, Janesville, Wisconsin 53545  
(608) 754-2811

Mt. Morris, Michigan (4,400), has provided police with portable tape recorders on which to dictate routine police reports. Centrally located typists transcribe the tapes. For further information, contact:

P. O. Munck, City Administrator  
11649 North Saginaw Street, Mt. Morris, Michigan 48458  
(313) 686-2160

San Diego, California (697,000), has prepared a new instructional manual for police officers, the "Report Writing Manual." In it, the use of a report is shown in flowchart format, and pertinent requirements for each type of report (armed robbery, stolen car, arrest, etc.) are described. Included are sample reports showing what should be included and why. The manual is used in the academy, and each officer keeps his copy for reference after graduation. For further information, contact:

Gerald Miller, Science Adviser to San Diego  
Code 210, Naval Electronics Lab, San Diego, California 92152  
(714) 225-7091. Report #19224, page 112

## Vehicles

Portsmouth, Ohio (27,600), has developed a police support car program. The city purchased 26 used State highway patrol cars and assigned them to patrol officers on the basis of seniority. Officers are encouraged to drive the cars to and from work and to use them for personal business. Officers are responsible for scheduling maintenance at the city garage during their off-duty hours. As a result, maintenance costs for police cruisers have been reduced; visibility of the police force has been increased; quicker response time to emergencies has been provided; and police-community cooperation has been improved. For further information, contact:

Scott Johnson, City Manager  
City Hall, Portsmouth, Ohio 45662  
(614) 353-4360

Plainfield, New Jersey (46,900), has installed police radios in the private vehicles of police officers who live in the city. This has led to a number of arrests by off-duty officers responding to incidents broadcast over the police radio and to added recognition for police officers who live in the community. For further information, contact:

Lawrence Bashe, City Administrator  
515 Watchung Avenue, Plainfield, New Jersey 07061  
(201) 753-3227

Holmdel Township, New Jersey (7,000), has contracted with a private firm for routine police car maintenance and has netted a 50 percent savings over prior costs. For further information, contact:

John J. Coughlin, City Administrator  
Box 385, Holmdel, New Jersey 07733  
(mail inquiries only, please)

Willingboro, New Jersey (47,000), has replaced full-size sedans with compact cars for police officers. The use of compact cars has resulted in a 41 percent savings for routine maintenance, a 35 percent reduction in gas and oil costs, and a 14 percent increase in miles per gallon. For further information, contact:

John D. Tegley, Town Manager  
Municipal Complex, Salem Road, Willingboro, New Jersey 08046  
(609) 877-2200

#### Measuring the Effectiveness of Police Services

Phoenix, Arizona (667,846), has conducted a program analysis of its police department which presents a comprehensive review of field response time and an evaluation of all police services through monitoring of goals and objectives. For further information, contact:

Patrick Manion, Management Assistant  
251 West Washington, Phoenix, Arizona 85003  
(602) 262-4844

#### Productivity Bargaining

Orange, California (77,500), has provided for salary increases for crime reduction in four areas: rape, robbery, burglary, and auto theft. For further information, contact:

Gifford Miller, City Manager  
P.O. Box 449, Orange, California 91109  
(714) 532-0341



## Multijurisdictional Efforts

Six California cities--Fremont (100,869), Hayward (93,058), Menlo Park (26,734), Oakland (361,561), Palo Alto (55,966), and San Jose (445,779) participated in an exchange program for police officers in middle management positions. Officers were assigned to their host departments for six months. For further information, contact:

Police Foundation  
1909 K Street, N.W., Suite 400, Washington, D.C. 20036  
(202) 833-1460

## Community Relations

Bellingham, Washington (39,000), has assigned a police officer to city schools to serve as an information resource for teachers and students. During the summer this officer sets up booths at various locations, displaying locks, drug paraphernalia, bicycle registration forms, and a variety of pamphlets. He or she also travels door-to-door advising residents on security methods. Citizen response to the program has been enthusiastic. For further information, contact:

Harold R. Raymond, Chief of Police  
P.O. Box 1278, Bellingham, Washington 98225  
(206) 676-6913

Hamilton, Ohio (67,900), has assigned three police officers to work full time in three city high schools with teacher aides. For further information, contact:

Hal Shepherd, Assistant to the City Manager  
City Hall, Hamilton, Ohio 45011  
(513) 895-7401

## Assistance for Victims

Glendale, Arizona (36,000), has established a Citizen Participation and Support Project, a comprehensive program of services to victims and witnesses of crime. Services provided include crisis intervention with victims, information on case status and criminal justice procedures, referral to other community agencies, victim-witness advocacy, financial assistance, emergency security services, and community presentations. For further information, contact:

John McLaughlin, Director, Citizen Participation and  
Support Project  
7012 North 58th Drive, Glendale, Arizona 85301  
(mail inquiries only, please)

### Volunteer Programs

Cottage Grove, Oregon (7,000), has trained senior citizen volunteers in security techniques. Volunteers go door-to-door pointing out household security needs, marking personal belongings with electric pencils, and developing inventory lists of property for police department files. This program has saved approximately \$20,000 in personnel costs. For further information, contact:

Ron L. Willis, Chief of Police  
28 South 6th Street, Cottage Grove, Oregon 97424  
(503) 942-2464

Aurora, Colorado (75,000), has established a PACT (Police And Citizens Together) care unit. The volunteers comfort and aid victims of crimes. For further information, contact:

Jerry D. Putman, Chief of Police  
9801 East 16th Avenue, Aurora, Colorado 80010  
(303) 366-1511

### Paraprofessionals

An increasing number of jurisdictions are employing paraprofessionals to perform certain routine tasks, such as accident investigation, and traffic control and dispatching; this frees trained police officers for crime prevention and investigation. For further information, contact:

Village of Elk Grove (24,516)  
Harry Jenkins, Police Chief  
Village Hall, Elk Grove Village, Illinois 60007  
(312) 439-3900

City of Tempe (95,000)  
Terry Stuart, Police Department  
31 East 5th Street, Tempe, Arizona 85281  
(602) 968-8221

City of New York (7,867,760)

Lt. John P. Oliver, Program Development Section  
Deputy Commissioner of Community Affairs  
1 Police Plaza, New York, New York 10038  
(212) 374-5320

City of Newberg (6,507)

Myrland Gilbert, Finance Officer  
City Hall, Newberg, Oregon 97132  
(503) 538-9421

City of Worcester (180,000)

John J. Hanlon, Chief of Police  
3 Waldo Street, Worcester, Massachusetts 01608  
(617) 753-6321

City of Richmond (175,000)

W. Hedrick, Chief of Police  
3812 Nine Mile Road, Richmond, Virginia 23223  
(804) 222-2323

City of Scottsdale (80,000)

Walter Nemetz, Police Chief  
3939 Civic Center Plaza  
Scottsdale, Arizona 85003  
(602) 994-2409

Newport News, Virginia (136,400), utilizes civilian dispatchers supervised by a police officer and fireman for police and fire communications. This has freed 12 police officers and 4 firefighters for line duties, saving \$14,131 per shift. For further information, contact:

C. Dean BeLer, Administrative Analyst  
2400 Washington Avenue, Newport News, Virginia 23607  
(804) 247-8413

Columbia, South Carolina (113,500), has developed an internship program for cadets at the police academy. During training at the academy, cadets intern in each division of the police department, relieving officers of many routine tasks. For further information, contact:

Graydon Olive, City Manager  
City Hall, Columbia, South Carolina 29201  
(803) 765-1041

Brown Deer, Wisconsin (12,600), has used Comprehensive Employment and Training Act (CETA) funds to create community service officer positions. The community service officers relieve police of routine duties. For further information, contact:

Gerald Schwerm, City Manager  
4800 Brook Drive, Brown Deer, Wisconsin 53223  
(414) 355-5220

Lawndale, California (25,000), has created a department of community safety which consists of a coordinator and four officers who are cross-trained in animal regulation, business license enforcement, parking enforcement, and abandoned vehicle abatement. Results of the program include a 35 percent increase in business license revenues, and a 30 percent increase in parking enforcement. Increased enforcement revenues have made the department self-supporting. For further information, contact:

Lloyd de Llamas, City Manager  
P.O. Box 98, Lawndale, California 90260  
(213) 973-4321

#### Animal Control

Phoenix, Arizona (667,846), has used Public Service Employment funds to improve animal control. This has been accomplished through city-sponsored clinics for vaccinating and licensing dogs and a door-to-door effort to inform owners about licensing procedures. Owners receive citations for unlicensed dogs. This project has resulted in increased revenues from dog licensing. For further information, contact:

J. Michael Urie, Management Intern  
251 West Washington Street, Phoenix, Arizona 85003  
(602) 262-4851

Chino, California (27,500), has contracted with the Humane Society for the use of several dog-catching vehicles and officers. Contract costs are paid from license and pound fees. More stray dogs are apprehended with patrols concentrated in selected areas in the early morning than were apprehended in an entire day by a single vehicle. For further information, contact:

Jorge Varela, Assistant to the City Manager  
City Hall, Chino, California 91710  
(714) 628-6011

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## Bicycle Parking

Oxford, Ohio (15,900), has drilled holes through parking meter posts and mounted 1.5-inch ring bolts to the posts to enable cyclists to "park" their vehicles. A sticker attached to the post illustrates the correct method for attaching a bicycle to the post; violators are ticketed. This practice has reduced bicycle theft, downtown pedestrian congestion, and damage to trees caused by locking bicycles to them. For further information, contact:

Lee Davis, City Manager  
Municipal Building, Oxford, Ohio 45056  
(513) 523-2171

## FIRE SERVICES

### Alternative Activities for On-Duty Fire Fighters

Glenview, Illinois (30,551), has purchased offset printing presses which fire fighters operate as a municipal printing press. For further information, contact:

Robert Van Deusen, Village Manager  
Village Hall, Glenview, Illinois 60025  
(312) 724-1700

Scottsdale, Arizona (80,000), has increased the productivity of its fire department by building its own fire trucks (saving \$15,000 to \$25,000 per truck), operating a meter repair truck, and assembling the polyethylene refuse containers used for the city's mechanized refuse collection system. For further information, contact:

Louis A. Witzeman, Fire Chief  
2857 North Miller Road, Scottsdale, Arizona 85251  
(602) 994-6394

### Alternative Staffing Patterns

Orange, California (77,400), assigns two fire fighters to a central location and understaffs its six fire stations. In the event of a fire, the two "floaters" meet a truck at the scene of the fire in any part of the city and complete the crew. Savings are estimated at \$280,000 per year. For further information, contact:

Chief Higgins  
P.O. Box 449, Orange, California 92666  
(714) 532-0341

Downers Grove, Illinois (36,776), employs full-time professional fire fighters during the day and volunteer fire fighters at night. The U.S. Department of Labor has approved payment of the minimum wage to night-time volunteers, although many of them are daytime professionals. This system operates at about two-thirds of the cost of 24-hour staffing by professionals. For further information, contact:

James Griesemer, Village Manager  
Village Hall, Downers Grove, Illinois 60515  
(312) 964-0300

Fairfax County, Virginia (455,000), has developed a computerized system for allocating fire fighters to the fire station nearest their home. Personnel assignments are based on staffing requirements at each station and are made to minimize the distance fire fighters must travel to reach their assigned areas. The system has also been used to reassign inspection personnel. For further information, contact:

Samuel A. Finz, Director, Office of Research and Statistics  
4100 Chain Bridge Road, Fairfax, Virginia 22030  
(703) 691-2126

### Auxiliary Fire Fighting Power

Scottsdale, Arizona (80,000), has developed the auxiliary fire fighter program, in which city employees provide auxiliary fire fighter power. These employees are paid only for time actually spent on duty. They receive full fire fighting training and are provided with a radio page for emergency calls. Their own fire trucks serve as a backup to regular fire department equipment. Each auxiliary fire fighter is paid an average of \$200 per month, as opposed to the \$2,000 per month cost for full-time fire fighters. For further information, contact:

Louis A. Witzeman, Fire Chief  
2857 North Miller Road, Scottsdale, Arizona 85251  
(602) 994-6394

Denison, Texas (24,923), has developed a Fire Reserve Program in which city employees provide auxiliary fire fighting power. Each volunteer receives full training and is paid only for time actually spent on duty. For further information, contact:

David Harner, City Manager  
108 West Main Street, Denison, Texas 75020  
(214) 465-2720

### Training

San Diego, California (775,000), has constructed a fire simulator for use in training. The simulator is a light projection system consisting of two overhead projectors, a rotating metal disc, a Fresnel lens, and several filters. The system cost \$125 and required 16 man-hours for construction. Used in conjunction with a communications system, this device gives realistic fire fighting experience without wear and tear on equipment. For further information, contact:

Edward Wright, Fire Captain  
6431 Glenroy Street, San Diego, California 92120  
(714) 582-1412

### Fire Information Systems

Elk Grove Village, Illinois (24,516), has developed a fire department information system. A file of slides of floor plans and hazardous areas throughout the village has been compiled for the use of fire fighters in an emergency. When an alarm goes off, the appropriate slide is relayed in 10 to 15 seconds to the commanding officer at the scene. For further information, contact:

John E. Henrici, Fire Chief  
101 Biesterfield Road, Elk Grove Village, Illinois 60007  
(312) 459-3905

Hamilton, Ohio (67,800), has developed a fire department information system which includes plans of city buildings drawn from walk-through inspections by fire fighters. The plans identify hazards and exits and provide other information of potential use to fire fighting crews. For further information, contact:

Hal Shepherd, Assistant to the City Manager  
City Hall, Hamilton, Ohio 45011  
(513) 895-7401

Grand Island, Nebraska (31,269), makes use of the National Fire Protection Association's Hazard Identification System in an unusual way. Normally, the diamond-shaped hazard identification signs are mounted inside the building; however, Grand Island businessmen place the signs outside the building so that an arriving fire truck can identify the hazard before the building is entered. Police have also been trained to read the symbols so that they can take proper precautions during a rescue; however, the signs do not reveal which materials are stored in a building, since this might invite thieves. For further information, contact:

John M. Carpenter, City Manager  
P.O. Box 1968, Grand Island, Nebraska 68801  
(308) 382-8600



## Vehicles

University City, Missouri (46,309), has constructed a 200-gallon mini-pumper to increase the flexibility of the fire department's response and prolong the life of their standard pumpers. The mini-pumper, which cost \$5,500 to build, has a two-person crew. It is utilized when the dispatcher decides a standard pumper is unnecessary, although the mini-pumper crew maintains radio contact to call for additional support if necessary. For further information, contact:

Charles Henry, City Manager  
6801 Delmar Boulevard, University City, Missouri 63130  
(314) 862-6766

Cayce, South Carolina (10,000), purchased a Dodge power wagon chassis and used it to construct a 250-gallon mini-pumper. The pumper is equipped with 300 feet of hose, airpacks, hand lights, blankets, spanners, fire rakes, a shovel, a foam eductor, a hydrant wrench, and a short pike pole. The tank, pump, repair, and body paint work cost the city less than \$4,000. For further information, contact:

Ellie Heustess, Jr., City Manager, or  
Lavern Jumper, Public Safety Director  
P.O. Box 4, Cayce, South Carolina 29033  
(803) 796-9020

Fairfax County, Virginia (455,000), utilizes Special Emergency Response Vehicles (SERV) to assist with rescue calls, respond to small fires and public service calls, and increase the number of building inspections conducted. The vehicles are equipped with ultra-high-band porta-com radios, emergency warning devices, breathing apparatus, first-aid kits, forceable entry tools, hose and portable extinguishers, protective clothing, explosive vapor concentration measuring devices, and a four-volume technical library. For further information, contact:

George Alexander, Fire Chief  
4100 Chain Bridge Road, Fairfax, Virginia 22030  
(703) 691-2126. Report #18597, page 113

## Infrared Viewing Device

Worcester, Massachusetts (175,000), utilizes Probeye, developed in conjunction with Public Technology, Inc. The Probeye device, by sensing infrared radiations emanating from a heat source (such as a human body), can detect the presence of that heat source and can depict on a screen its general size and configuration. Probeye looks like a small tele-

vision set and weighs 7.5 pounds. For further information, contact:

Francis McGrath, City Manager  
City Hall, Room 306, Worcester, Massachusetts 06108  
(617) 798-8151

or

Public Technology, Inc.  
1140 Connecticut Avenue, N.W., Washington, D.C. 20036  
(202) 452-7700

### Fire Station Locator Package

Several cities have worked with a computer program (developed by Public Technology, Inc.) which determines how many fire station sites are necessary, where they should be placed, the likely average response time, and the estimated number of alarms per city. For further information, contact:

City of Norfolk (307,951)  
L. C. Davis, Director of Research  
City Hall, Norfolk, Virginia 23501  
(804) 441-5231

City of Denver (515,000)  
Chris H. Tomasides, Deputy Finance Director  
414 14th Street, Annex II, #330, Denver, Colorado 80202  
(303) 297-5859

Public Technology, Inc.  
1140 Connecticut Avenue, N.W., Washington, D.C. 20036  
(202) 452-7700

Wilmington, Delaware (80,385), analyzed its fire fighting operations in preparation for relocating its fire stations. One of nine engine companies was phased out without a reduction in fire protection. This resulted in a net annual saving of \$250,000. For further information, contact:

David W. Singleton, Budget Management Assistant  
377 Public Building, Wilmington, Delaware 19801  
(302) 571-4149

## Large Diameter Fire Hose

Scottsdale, Arizona (92,000), uses 4-inch fire hose with coupling devices imported from Germany. For further information, contact:

Louis A. Witzeman, Fire Chief  
2857 North Miller Road, Scottsdale, Arizona 85251  
(602) 994-0394

Tacoma, Washington (154,600), has completed work on a 5-inch hose which will soon be standard equipment on all its trucks. For further information, contact:

John Maddock, Technical Coordinator, Tacoma Fire Department  
901 Fawcett Avenue, Tacoma, Washington 98402  
(206) 593-4433

Portland, Oregon (383,000), has abandoned use of wider diameter hose because of kinking problems. For further information, contact:

Gordon A. Morterud, Fire Chief  
55 S.W. Ash Street, Portland, Oregon 97204  
(503) 248-4375

## Other Technological Improvements

Scottsdale, Arizona (92,000), utilizes several unique devices for fire suppression. The Snail is a remote control device which can drag hose and operate a nozzle, withstanding temperatures up to 700° F. One fire fighter standing 200 feet from a fire can simultaneously operate up to three Snails. One Snail has been built at a cost of \$5,000. The Bosun's Chair is a radio-controlled device permanently installed in one of Scottsdale's tallest buildings, the upper parts of which are beyond the reach of a normal hook and ladder truck. The chair travels on a track which encircles the building and can move vertically and horizontally across the face of the structure. Scottsdale also uses a radio-controlled hydrant which enables fire fighters to open and close hydrants by remote control, eliminating the need for an extra person at the hydrant. For further information, contact:

Louis A. Witzeman, Fire Chief  
2857 North Miller Road, Scottsdale, Arizona 85251  
(602) 994-0394

## Productivity/Performance Standards

Tacoma, Washington (154,500), has signed an agreement with its fire fighters which provides for the joint exploration of more productive uses of manpower and equipment. Savings are to be used to increase salaries and reduce the work week. The agreement also provides for the closing of one fire station and redeployment of manpower and equipment to a specially equipped roving squad. For further information, contact:

John Maddock, Technological Coordinator, Tacoma Fire Department  
901 Fawcett Avenue, Tacoma, Washington 98402  
(206) 593-4433

Portland, Oregon (393,000), has begun a program of setting performance standards for fire company ground operations and fire inspection work. Some standards on individual skills, already being used by company officers in training sessions, have been published. Performance standards for company inspection work have not yet been completed. For further information, contact:

Gordon A. Morterud, Fire Chief  
55 S.W. Ash Street, Portland, Oregon 97204  
(503) 248-4375

Phoenix, Arizona (667,846), has conducted a fire department productivity and salary evaluation. This study documents productivity increases and compares fire fighters' salaries and productivity levels in Phoenix with those in other cities. For further information, contact:

Susan Leach, Management Assistant  
251 West Washington Street, Phoenix, Arizona 85003  
(602) 262-4841

## PUBLIC WORKS

■ This symbol indicates that an in-depth report on the project is available through the Report Clearinghouse. See pages 111-115 for descriptions of the reports and order forms.

For the past three years, the Guide to Productivity Improvement Projects has been prepared by the International City Management Association for the National Center for Productivity and Quality of Working Life and made available free with Center support. With the publication of this third edition, the Guide is on its own. In the future it will be published by ICMA and distributed on a subscription basis only. To receive forthcoming editions and updates of the Guide, contact:

Productivity Guide  
International City Management Association  
1140 Connecticut Avenue, N.W.  
Washington, D.C. 20036

## SOLID WASTE

### Mechanized Residential Collection

An increasing number of cities are converting from manual solid waste collection operations to mechanized systems. This change has often reduced the crew size and increased productivity. Partially mechanized systems, using side or rear loaders and 80-gallon carts which are manually rolled to a lifting device, have been used to make the transition to once a week or curbside collection more politically acceptable. For alley collection, fully mechanized systems are especially efficient and economical. These systems can function with 300-gallon containers or 4-cubic-yard metal bins serving three to four homes or can be adapted for single family curbside use with 90-gallon roll-out containers. The cities listed below have had experience with these systems and may be a valuable resource to others who are considering mechanized collection. For further information, contact:

#### Partially Mechanized: Cart Systems

##### City of Albemarle (11,126)

Jack F. Neel, City Manager

P.O. Box 190, Albemarle, North Carolina 28001

(704) 982-0131

##### Village of Shorewood (15,000)

S. C. Abbey, Village Manager

3930 North Murray Avenue, Shorewood, Wisconsin 53211

(414) 762-2915

##### City of Fort Lauderdale (140,000)

Richard E. Anderson, City Manager

P.O. Drawer 1181, Fort Lauderdale, Florida 33308

(305) 527-2011

#### Fully Mechanized: Bin Systems

##### City of Odessa (78,400)

Ronald Neighbors, City Manager

P.O. Box 4398, Odessa, Texas 79760

(915) 337-7381

City of Littlefield (7,000)  
Jim C. Blagg, City Manager  
P.O. Box 1267, Littlefield, Texas 79339  
(806) 385-4411

Fully Mechanized: Roll-out Container Systems

City of Phoenix (667,846)  
Harry Kelman, Operations Analysis Administrator  
251 West Washington Street, Phoenix, Arizona 85003  
(602) 262-4818 Report #19216, page 112

City of Taft (4,000)  
Michael Goyer, City Manager  
Civic Center, Taft, California 93268  
(805) 763-3144

City of Alliance (7,000)  
Robert A. Placek, City Manager  
P.O. Drawer D, Alliance, Nebraska 69301  
(308) 762-5400

Reductions in Crew Size: Manual Collection

The following cities have reduced the size of collection crews without converting to a mechanized system. For further information, contact:

One-Person Manual Crews

City of Miamisburg (14,800)  
Donald Vermillion, Acting City Manager  
10 North 1st Street, Miamisburg, Ohio 45342  
(513) 866-3303

City of New Brighton (8,000)  
Garry L. Hogan, Borough Manager  
515 9th Street, New Brighton, Pennsylvania 15066  
(412) 846-1870

City of Visalia (34,750)

Willie Case, Superintendent, Solid Waste Division  
707 West Acequia, Visalia, California 93277  
(209) 734-2011

Two- and Three-Person Manual Crews

City of Yakima (48,500)

Craig McMicken, City Manager  
City Hall, Yakima, Washington 98901  
(509) 575-6040

Town of Oakville (58,000)

O. H. Ellis, Director of Public Works  
P.O. Box 310, Oakville, Ontario, CANADA L6J 5A6  
(416) 845-6601

City of Wilmington (80,386)

Bruce Smith, Budget Management Review Team  
337 Public Building, Wilmington, Delaware 19801  
(302) 571-4110. Report #19208, page 112

City of Madison (173,000)

Edward J. Duszynski, Public Works Director  
City Hall, Madison, Wisconsin 53709  
(608) 266-4620

Dallas, Texas (844,000), has reduced its crew size from three to two by using a modified step-in cab which allows the driver to load and drive in a standing position. The "telephone booth" cab and controls were designed by the city of Dallas as an inexpensive modification to their regular side loader packer trucks. The sanitation department saves approximately 325,000 man-hours per year through this program. The city is experimenting with a further development of the same type of cab with dual controls for a one-man crew. For further information, contact:

Morris F. Bishop, Assistant Director of Street and  
Sanitation Services  
2721 Municipal Street, Dallas, Texas 75215  
(mail inquiries only, please)



## Equipment

Several municipalities are using larger trucks to reduce the number of trips to the landfill or transfer station. Because of the increased capacity of these trucks, routes have been lengthened and the total number of routes reduced. For further information, contact:

### City of Detroit (1,511,000)

James Watts, Public Works Director  
513 City-County Building, Detroit, Michigan 48226  
(313) 224-3900

### City of Fort Worth (393,500)

Don LaBelle, Assistant Public Works Director  
1000 Throckmorton, Fort Worth, Texas 76102  
(817) 335-7211

## Equipment Maintenance

Lancaster, Texas (13,700), has implemented a Preventive Maintenance program for solid waste equipment to combat excessive maintenance costs, especially in the sanitation department. The city mechanic now spends 80 percent of his time on sanitation department equipment. This new arrangement, with its programmed preventive maintenance and rapid repairs, has reduced downtime. Net savings for the first 6 months over the same period last year are \$7,900. For further information, contact:

John R. Marshall, City Manager  
P.O. Box 548, Lancaster, Texas 75146  
(214) 227-2111

## Disposable Containers

Denison, Texas (24,923), is using plastic bags and other tied throwaway containers because they weigh less and reduce insect breeding. They have been well received by citizens. For further information, contact:

David Harner, City Manager  
108 West Main Street, Denison, Texas 75020  
(214) 465-2720

Port Neches, Texas (10,894), is using plastic bags for the reasons cited immediately above. One added feature has been documented from this plastic bag program: there have not been any back injuries in the sanitation department in the 3 years of the program. The overall accident record has improved 60 percent in the 3 years. For further information, contact:

Jim Davis, City Manager  
P.O. Box 755, Port Neches, Texas 77651  
(713) 727-2181

### Uncontained Refuse Collection

■ Phoenix, Arizona (667,846), has undertaken a program analysis review of the city's role in the collection of uncontained refuse. The pilot study includes identification of program objectives, analysis of community needs, evaluation criteria, cost data, and implications of program alternatives in satisfying program objectives. For further information, contact:

Susan Leach, Management Assistant  
251 West Washington Street, Phoenix, Arizona 85003  
(602) 262-4841. Report #18643, page 114

Dallas, Texas (844,000), uses Roto-booms (mechanical collectors) to collect all heavy and bulky items and any brush piles too large for the hand crews. The locations of the large brush and bulky items are noted by the crews, and a collection route is worked out by the supervisor who communicates with the crew by radio. One Roto-boom and driver with two open trailer trucks and two drivers can do the work of three two-man trash crews. Mechanical loading has increased each load by approximately 60 percent with a marked reduction in the number of injuries to crew members. For further information, contact:

J. D. Whitton, Sanitation Services Superintendent  
2721 Municipal Street, Dallas, Texas 75215  
(mail inquiries only, please)

### Revision of Collection Routes

Wichita Falls, Texas (97,500), is using the city computer to reroute its collection system and reduce the work force to the 1961 level. For further information, contact:

Ernest Lillard, Public Works Director  
City Hall, Wichita Falls, Texas 76307  
(817) 322-5611

Little Rock, Arkansas (139,700), has revised its routing system and has eliminated several routes. For further information, contact:

Dan Bunten, Industrial Engineer, Office of Management Support  
Denham Building, Markham and State Streets  
Little Rock, Arkansas 72201  
(501) 376-6111, extension 216

Huntington Woods, Michigan (8,536), had already saved 1 man-year by replacing one of its two rear loaders with a one-man side loader. Since the new vehicle could cover the collection routes in 5 hours, a decision to revise the collection routes was made to increase efficiency. Three man-days were spent on a manual process of rerouting. As a result of these improvements, 28 positions were eliminated. For further information, contact:

Solid Waste Information-Materials Control Section,  
U.S. Environmental Protection Agency  
Cincinnati, Ohio 45268  
Publication: OSWMP #365/SW-113

#### Scheduling Systems/Frequency of Collection

Dallas, Texas (844,000), has lengthened the collection schedule from five to six days and has reduced the number of vehicles from 210 to 140. Crews now work four 10-hour days, which has resulted in reduced fuel consumption and reduced commuting time. For further information, contact:

John Teipel, Director, Streets and Sanitation Department  
2721 Municipal Street, Dallas, Texas 75215  
(214) 748-9711

Victoria, Texas (48,500), has reduced its collections from 5 to 4 days. All equipment is serviced and repaired on the day it is not in use. For further information, contact:

John Lee, City Manager  
Box 1758, Victoria, Texas 77901  
(512) 573-2401

Nederland, Texas (18,500), has allowed collection crews the choice between a 5-day 8-hour work week and a 4-day 10-hour work week. All crews are paid overtime for any hours over 8 worked in any one day. The following results have been reported: (1) morale is much improved; (2) trucks are serviced more regularly; (3) a reduction in overtime has resulted in substantial cost savings; and (4) productivity has been increased. For further information, contact:

John Bamber, Director, Public Works  
P.O. Box 967, Nederland, Texas 77627  
(mail inquiries only, please)

Fort Worth, Texas (393,500), reports that its 4-10 system has reduced employee turnover, increased crew morale, and improved vehicle maintenance. For further information, contact:

Don LaBelle, Assistant Director, Public Works  
1000 Throckmorton, Fort Worth, Texas 76102  
(817) 335-7211

### Incentive Systems

An increasing number of cities have adopted task systems for solid waste collection. With this system, when the workers have completed their route, they are finished for the day. For further information, contact:

City of Fort Worth (393,500)  
Don LaBelle, Assistant Director, Public Works  
1000 Throckmorton, Fort Worth, Texas 76102  
(817) 335-7211

City of Lancaster (11,000)  
Herbert L. Patrick, City Manager  
P.O. Box 190, Lancaster, South Carolina 29720  
(801) 283-9993

City of Little Rock (132,000)  
Roger Lubin, Technology Agent  
City Hall, Little Rock, Arkansas 72201  
(mail inquiries only, please)

City of Richardson (63,500)  
Bob Hughey, City Manager  
City Hall, Richardson, Texas 75080  
(214) 235-8331

Dodge City, Kansas (14,000), uses "Flexitime" in its sanitation division. Each truck is responsible for a single residential area. When collection in an area is completed, the truck and crew are finished for the day. However, each crew is responsible for taking care of complaints in its area the following day. In addition to saving money, this system has reportedly improved efficiency and has provided crews with a sense of pride. For further information, contact:

Leland Brodbeck, City Manager  
City Hall, Dodge City, Kansas 67801  
(316) 225-1391

### Transfer Stations

As cities expand, the distance between collection routes and landfill sites increases. To counteract this negative effect on the productivity of collection crews, the following municipalities utilize transfer stations equipped with multi-load heavy duty compactors to reduce hauling. For further information, contact:

City of University City (46,300)  
Allan B. Dieckgraete, Director of Public Works  
6801 Delmar Boulevard, University City, Missouri 63130  
(314) 862-6767

City of Hamilton (67,900)  
Hal Shepherd, Assistant to the City Manager  
Municipal Building, Hamilton, Ohio 45011  
(513) 895-7401

Plano, Texas (40,000), and Richardson, Texas (63,500), have been sharing a transfer station equipped with multi-load heavy duty compactors. Costs are prorated according to tonnage generated by each city. For further information, contact:

Robert Hughey, City Manager  
City Hall, Richardson, Texas 75080  
(214) 235-8331

### Resource Recovery

Chadron, Nebraska (6,289), uses a baling system which processes 350 tons per month for solid waste disposal. This system conserves space, controls odors and vermin, and eliminates wind-scattered

debris. For resource recovery, the balefill has a designated "Recycle Center" where junked autos are stored for sale to a steel mill; concrete, rock, brick, and other demolition wastes are accumulated for resurfacing alleys; and aluminum, iron, and copper are separated and stored for sale to secondary metals dealers. Newsprint and cardboard are baled separately and are being stored until the market improves. The cost of baled refuse was \$5.10 per ton for 1975-76. Citizen reaction has been very favorable. For further information, contact:

Carl Rhembrandt, City Manager  
P.O. Box 890, Chadron, Nebraska 69337  
(308) 432-4464

New Carrollton, Maryland (14,870), collects glass, aluminum, other metals and leaves, but encourages citizens to bring these materials to a central location. Volunteers flatten cans and crush the glass with machines donated by a local bottler. The leaves are transported to the city's compost pile. Compost is used for municipal projects and is free for citizens' use. For all these materials, the city saves \$4 per ton in landfill costs, avoids hauling costs, and derives revenues from the sale of the glass and metals. For further information, contact:

John L. Brunner, City Administrator  
City Hall, New Carrollton, Maryland 20784  
(301) 577-7788

Odessa, Texas (78,000), has constructed a shredder plant equipped to extract ferrous metals from organic wastes which are plowed back into the soil. The project was undertaken to reduce both potential land pollution and the costs of waste disposal. Although the project is too new to yield definitive results, projections indicate shredding and soil enrichment costs to be less than those for landfilling. For further information, contact:

Robert F. Schnatterly, Director of Utilities  
P.O. Box 4398, Odessa, Texas 79760  
(915) 337-7381

Beaufort County, South Carolina (51,136), uses two transfer stations to compact waste at a 5-to-1 ratio. The waste is then transported to the landfill site where it is processed by a shredder, compacted at an 8-to-1 ratio, and disposed of. As part of this process, ferrous metals are separated out and sold to a local plant for an annual return of over \$24,000. For further information, contact:

C. C. Haigh, County Public Works Supervisor  
Beaufort, South Carolina 29902  
(803) 524-3561

Winston-Salem, North Carolina (132,900), uses vacuum-cleaner-like extension hoses for collecting leaves and small debris. The cost is approximately \$1,000 per hose. For further information, contact:

Robb Davis  
P.O. Box 2511, Winston-Salem, North Carolina 27102  
(919) 727-2193

### Student Interns

Port Neches, Texas (10,894), has hired high school students as summer interns with the city. The interns spend at least 1 week on the sanitation truck. The student crews are also responsible for cleaning the areas around the schools. This increased awareness has carried over into the school year; these students are effective enforcers of the "keep it clean" philosophy. This program has several other benefits: employment for youth; city-wide cleanup; continued cleanup in school areas; and exposure to local government for young citizens. For further information, contact:

Jim Davis, City Manager  
P.O. Box 755, Port Neches, Texas 77651  
(713) 727-2181

### City-Wide Cleanup

Plainfield, New Jersey (46,900), has constructed a transfer station to replace the high cost city-wide cleanup service provided to residents in the past. Residents are charged \$1 for each carload of material they bring to the station. The city compacts the material and carts it to the landfill. The transfer station is attracting private businesses (with which residents contract for regular garbage collection) and the business of other municipalities. When revenues from these sources can support the entire operation, local residents will no longer be charged for the use of the transfer station. For further information, contact:

Lawrence Bashe, City Administrator  
515 Watchung Avenue, Plainfield, New Jersey 07061  
(201) 753-3227

Ankeny, Iowa (13,212), opens dump sites to residents who can dispose of their own refuse on two cleanup weekends every year. This procedure replaces the 3 weeks of curbside collection which had been provided for city cleanup periods in the past. The well-publicized \$9,000 in savings to the city as a result of the new system has helped create a favorable reaction from residents. For further information, contact:

Dave Selene, Assistant to the City Manager  
408 3rd Street, Ankeny, Iowa 50021  
(515) 964-4988



## STREETS

### Street Repair

Gainesville, Florida (64,500), has purchased a portable concrete mixer. This has resulted in a significant reduction in idle time and overtime, which was caused by late delivery of concrete. For further information, contact:

Harold Farmer, City Manager  
City Hall, Gainesville, Florida 32601  
(904) 378-5381

Sarasota County, Florida (120,000), is experimenting with porous pavement mixes that allow rainwater to percolate to the ground, thereby reducing runoff and the need for more expensive storm drains. For further information, contact:

Sebastian D'Alli, County Engineering Director  
P.O. Box 8, Sarasota, Florida 33578  
(813) 958-9711

Worcester, Massachusetts (177,000), uses SYLVAX, a bituminous-based, cold-mix street patching compound. SYLVAX lasts substantially longer than conventional cold-mixes, thereby reducing labor, equipment, and material necessary to maintain street surfaces during the winter. For further information, contact:

Charles A. Hill, Technology Agent, or  
Richard J. Grant, Assistant Commissioner of Public Works  
City Hall, Worcester, Massachusetts 01608  
(mail inquiries only, please)

Minneapolis, Minnesota (434,000), repairs wide cracks on bituminous roadways with a router to save time and money. Routing is at least five times faster than using pavement breakers. In addition, there is a savings of almost 90 percent in material. For further information, contact:

Kenneth Gjerde, Assistant General Foreman, Paving Repair  
(612) 348-2439  
(phone inquiries only, please)

## Street Signs

Durham, New Hampshire (5,000), constructs hand-cut wooden street signs with a router and then sprinkles the signs with glass beads for night reflectorizing. The unit cost is \$1.38 as compared to \$1.74 for commercial aluminum signs. The wooden signs are stronger and damage from vandalism has been reduced. For further information, contact:

Henry LeClair, Administrative Assistant  
13 Newmarket Road, Durham, New Hampshire 03824  
(mail inquiries only, please)

## Sidewalks

Stanton, California (23,264), repairs sidewalks damaged by tree roots as follows: repair crews saw and remove a section of the sidewalk, remove the roots, level the ground, and replace the sidewalk. This method has yielded net savings of 50 percent. For further information, contact:

Clarence A. Motz, City Administrator  
7800 Katella Avenue, Stanton, California 90680  
(714) 893-2471

Ames, Iowa (40,000), has implemented a one-man sidewalk staking system to replace three- to four-man crews. The method involves using the existing curb elevation, property pins, and a level line to establish the grades in relation to the established curb. No expensive instruments are required. For further information, contact:

Robert Lawrence, Engineering Aide Supervisor  
City Hall, Ames, Iowa 50010  
(mail inquiries only, please)

## Effectiveness Measurement

Fort Worth, Texas (393,500), has developed an effectiveness measurement program in which streetsweeper supervisors act as trained observers to rate street cleanliness. Each supervisor inspects routes and evaluates operators for performance, instructing them by radio to resweep those streets which have been poorly swept. Written evaluations are an important element of employee performance records. For further information, contact:

Don LaBelle, Assistant Public Works Director  
1000 Throckmorton, Fort Worth, Texas 76134  
(817) 335-7221, extension 243

#### Four-Day Work Week

Springfield, Missouri (120,000), has instituted a 4-day work week in its division of street maintenance. Half of the division works Monday through Thursday and half works Tuesday through Friday to provide complete coverage during the normal 5-day week. This program has resulted in an increased number of streets cleaned and flushed as well as a reduction in fuel. For further information, contact:

David G. Snider, Director of Public Works  
City Hall, Springfield, Missouri 65802  
(417) 865-1611

#### Maintenance Scheduling Systems

Santa Rosa, California (65,000), has developed an inventory of all streets and their characteristics (type, roadside, signs, storm drains, condition of surface). These data are used to determine annual, monthly, and weekly schedules for street maintenance crews. For further information, contact:

Don Zaro, Budget Analyst, Department of Finance  
P.O. Box 1678, Santa Rosa, California 95403  
(707) 528-5126

or

Russ Hamm, Deputy Director, Field Services  
P.O. Box 1678, Santa Rosa, California 95403  
(707) 528-5141

Wichita Falls, Texas (97,500), has developed a computerized street inventory system that lists all street characteristics (age, type of construction, usage, last maintenance, etc.), for use in scheduling maintenance crews. For further information, contact:

Ernest Lillard, Public Works Director  
City Hall, Wichita Falls, Texas 76307  
(817) 322-5611

## Bridges

The State of Washington has used diamond-blade scarifiers and a vacuum device to resurface the I-90 bridge to Mercer Island, thereby restoring the structural capacity of the bridge deck. For further information, contact:

George O. Shanafelt, Bridge Operations Engineer  
(206) 753-6040  
(phone inquiries only, please)

Los Angeles County, California (6,992,300), has adopted a resolution to assume responsibility and cost for inspecting and rating bridges within its jurisdiction subject to concurrence by the individual cities with the county. A total of 56 cities is included in the program, which is financed through the State highway users' tax fund. County road department personnel perform the inspections. For further information, contact:

I. L. Morhar, Road Commissioner  
1540 Alcazar Street, Los Angeles, California 90033  
(213) 225-1677

## Snow and Ice Control

Ankeny, Iowa (9,000), has devised a snowplow curb guard which is mounted on the lower right-hand corner of the snowplow (next to curb). It consists of an easily installed polyethylene wheel mounted in a retractable frame. The guard serves as a guide for the driver and is extremely effective in eliminating curb breaks and chips. Each curb guard costs \$70. For further information, contact:

Dave Dirks, City Manager  
408 Southwest 3rd Street, Ankeny, Iowa 50021  
(515) 964-4988

Brown Deer, Wisconsin (12,600), has reduced the size of its salt spreading crews through modifications to its salt spreaders. A device to control salt flow has been installed and its control panel has been placed in a position accessible to the driver. For further information, contact:

Gerald Schwerm, City Manager  
4800 Green Brook Drive, Brown Deer, Wisconsin 53223  
(414) 355-5220

## BUILDINGS

### Building Maintenance

Worcester, Massachusetts (177,000), uses a high-pressure (500 psi) water jet for graffiti removal. The water jet penetrates into the subsurface pores of rough materials and flushes out most of the foreign material. Mild detergents or solvents can be blended with the water to achieve quicker or more effective results. The water jet, unlike sandblasting, does not erode or lighten the color of the overall material surface. For further information, contact:

Charles A. Hill, Technology Agent  
City Hall, Worcester, Massachusetts 01608  
(mail inquiries only, please)

### New Uses for Old Facilities

Mt. Kisco, New York (9,500), leased its abandoned incinerator building to a private entrepreneur specializing in recycling and resource recovery. The village will net over \$15,000 in rent in the next three years. For further information, contact:

Robert F. Ledger, Jr., Village Manager  
104 Main Street, Mt. Kisco, New York 10549  
(914) 241-0500

Thornton, Colorado (13,326), has converted two abandoned wastewater treatment tanks into a new shop complex. The two large, round concrete buildings house the vehicle maintenance and meter repair operations. Roofs were constructed, doors were cut, and heating and air conditioning were installed. The conversion process took less time and involved considerably less money than would have been required for the construction of new buildings. For further information, contact:

Jerome Castrodale, City Manager  
8892 Washington Street, Thornton, Colorado 80229  
(303) 287-5501

Greece, New York (75,136), converted its sewage treatment plant to police headquarters at 20 percent of the cost of a new structure. This conversion provided the town with a new public safety facility at a cost of approximately \$200,000. Architects concluded that to construct the same building in 1975 would have cost over \$1 million.

For further information, contact:

Kenneth C. Reif, Deputy Supervisor for Finance  
2505 Ridge Road West, Rochester, New York 14626  
(mail inquiries only, please)

EQUIPMENT MANAGEMENT/MAINTENANCE

Madera, California (18,000), has established a comprehensive maintenance program which requires regular scheduling of all vehicles for routine maintenance and a structured crisis maintenance program. This program has greatly reduced downtime as well as the costs of labor and parts. For further information, contact:

John L. Baudek, City Administrator  
205 West 4th Street, Madera, California 93637

Janesville, Wisconsin (46,400), has implemented a computerized fleet management and cost accounting system called "Mainstem." It provides accurate, up-to-date information on vehicle maintenance, vehicle costs, fuel and oil usage, and garage and overhead costs for both general fund items and nontax activities such as special assessment construction. For further information, contact:

Philip Deaton, City Manager  
18 North Jackson Street, Janesville, Wisconsin 53545  
(608) 754-2811

## SEWER AND WATER SERVICE

### Water Meter Maintenance

Rocky Mount, North Carolina (39,500), has instituted a Water Meter Maintenance Program after a survey revealed that 38 percent of the water pumped by the city was not being billed. The public works department has undertaken a program to upgrade, rehabilitate, and maintain all water meters. As a result, an additional \$300,000 per year in permanent income to the city will be generated. For further information, contact:

Al Williams, Administrative Assistant  
P.O. Box 1180, Rocky Mount, North Carolina 27801  
(mail inquiries only, please)

### Water Meter Replacement

Nashville, Tennessee (448,000), is replacing its mechanical drive water meters with magnetic drive meters. Savings of \$70,000 per year are anticipated from the changeover. For further information, contact:

Richard Brant, Metro Budget Office  
1023 Stahlman Building, Nashville, Tennessee 37201  
(615) 747-4425

Orlando, Florida (200,000), has replaced all old spindle drive meters with magnetic drive meters. As a result, meter trouble calls have been reduced 39 percent and revenues have increased 5 percent because of more accurate metering. For further information, contact:

T. C. Pope, Manager, Water Operations  
500 South Orange Avenue, Orlando, Florida 32802  
(305) 841-1230

### Meter Reader Communications

Monroe, North Carolina (11,282), provides meter readers with small motorcycles for transportation and two-way radios to call back utility readings to centralized operators. The operators' accounts are sequenced to the meter routes. Despite a 10 percent increase in population and the additional responsibility for gas meters, the



number of meter readers has not expanded in 10 years. For further information, contact:

J. E. Hinkel, City Manager  
City Hall, Monroe, North Carolina 28110  
(704) 283-8165

Fayetteville, North Carolina (55,000), has operated a system of water meter reading via two-way radio communications to a central information office for the past 20 years. The system has coped successfully with increases in population. Meter reading can be carried out in inclement weather, since field agents do not need to carry records. One dispatcher handles several field workers' information needs simultaneously, thus increasing output. For further information, contact:

J. E. Freeman, Public Works Commission  
Fayetteville, North Carolina 28301  
(mail inquiries only, please)

#### Incentive System

Columbia, South Carolina (113,300), has adopted an incentive or task system for meter readers. Readers are allowed to leave once routes are completed. For further information, contact:

Graydon Olive, City Manager  
City Hall, Columbia, South Carolina 29201  
(803) 765-1041

#### Remote Sensor Meter Reading

Mankato, Minnesota (31,900), has completed an experiment in which a telephone company computer automatically reads gas and water meters over telephone lines. While the field trial has proved that such a system can operate successfully, economic considerations do not make it practical at present. For further information, contact:

William Bassett, City Manager  
202 West Jackson Street, Mankato, Minnesota 56001  
(507) 387-3161

Janesville, Wisconsin (46,000), installs an outdoor register on all new meters, thereby eliminating the need to enter dwellings. For further information, contact:

David E. Kessler, Director of Public Services  
18 North Jackson Street, Janesville, Wisconsin 53545  
(608) 754-2811

### Sewer Line Maintenance

Several cities utilize automatic high-pressure sewer cleaners to reduce crew size and increase the number of miles cleaned. For further information, contact:

City of New Castle (38,500)  
Edward Stiff, Business Administrator  
216 Fairfield Avenue, New Castle, Pennsylvania 16101  
(412) 652-7781

City of Glenview (30,551)  
Robert Van Deusen, Village Manager  
Village Hall, Glenview, Illinois 60025  
(312) 724-1700

### Water Plant Alarm System

Oxford, Ohio (16,000), has installed warning devices actuated by malfunctions at the wastewater treatment plant. A malfunction activates an alarm at the police department. This system has enabled the city to reduce staffing at the plant from three shifts to 1½ shifts per day. The system has been in use for about one year and has not malfunctioned to date. Total installation cost was \$400 including all parts and labor. For further information, contact:

Lee Davis, City Manager  
Municipal Building, Oxford, Ohio 45056  
(513) 523-2171

Orlando, Florida (200,000), installed a \$300,000 central computer to improve control of seven remote, unmanned water treatment plants and to provide superior data retention. Use of the computer has accelerated the recognition, diagnosis, and correction of system failures; it has reduced the burden of report preparation by the regulatory agencies; and it permits system expansion without additional personnel. For further information, contact:

T. C. Pope, Manager, Water Operations  
500 South Orange Avenue, Orlando, Florida 32802  
(305) 841-1230

### Extending Water Service

Nederland, Texas (18,500), has developed a method for tapping the water main under a street without digging up the street itself. Iron rods are punched under the street with a backhoe unit enabling taps to be made faster and eliminating the need for street repair. For further information, contact:

A. A. Salter, Water and Wastewater Superintendent  
P.O. Box 967, Nederland, Texas 77627  
(mail inquiries only, please)

### Administrative Improvements

Dallas, Texas (844,000), has established 11 departmental task forces to examine various management problems within the water utilities department. In addition, long-term planning and industrial engineering staffs have been established. Analysis of the department's operations was done cooperatively with a consultant. At full phase-in, annual savings of \$1.2 million are anticipated. For further information, contact:

I. M. Rice, Director, Water Utilities Department  
500 South Ervay, room 201-A, Dallas, Texas 75201

Cincinnati, Ohio (453,000), is converting its water information ledger and billing (WILLING) system to a computerized system. The system will provide account statements with complete information, billing within three days of meter reading, better estimates when meters cannot be read, and improved quality and accessibility of account data. In addition, customers with flawless payment histories will have more freedom in payment, and customers who care to pay in advance may do so. For further information, contact:

Daniel C. Laurence, Superintendent of Commercial Division  
4747 Spring Grove Avenue, Cincinnati, Ohio 45232  
(513) 352-4601

## DEMAND/RESPONSE TRANSPORTATION SYSTEMS

Helena, Montana (22,700), has converted its bus system to Dial-A-Ride service. Two 25-passenger buses have been traded in for two 17-passenger vans. Even though the daily hours of service have been reduced from 11 to 8, ridership and revenues have increased and operating costs have substantially decreased. For further information, contact:

Alan Thelen, City Manager  
Civic Center Building, Helena, Montana 59601  
(406) 442-9920

Worcester, Massachusetts (176,600), operates Dial-A-Ride bus service primarily for the elderly to transport citizens from their homes to shopping centers. The fare is 10 cents and reservations must be made 24 hours in advance. For further information, contact:

Francis McGrath, City Manager  
City Hall, Worcester, Massachusetts 06108  
(617) 798-8151

Downers Grove, Illinois (38,776), subsidizes taxi fares for the elderly through an agreement with a local taxicab firm. The village purchases coupons from the taxicab firm at a 10 percent discount and sells them to senior citizens at 30 percent less than the original cost. For further information, contact:

James Griesemer, Village Manager  
801 Burlington Avenue, Downers Grove, Illinois 60515  
(312) 964-0300

## PARKS/RECREATION/LIBRARIES

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International City Management Association  
1140 Connecticut Avenue, N.W.  
Washington, D.C. 20036

## MAINTENANCE

### More Efficient Maintenance

Oxford, Ohio (15,900), keeps hand trimming and mowing to a minimum by placing wood chips around trees and bushes on public property. The use of wood chips produces an attractive visual effect and reduces the need for maintenance in these areas. For further information, contact:

Lee Davis, City Manager  
Municipal Building, Oxford, Ohio 45056  
(513) 523-2171

Fremont, California (115,000), makes better use of its parks maintenance crew by: (1) decentralizing crews to reduce travel time from the corporation yard; (2) using part-time employees; (3) combining adjacent work areas for maintenance by one crew; (4) reducing the street tree crew by specializing labor for medium-size and large trees; (5) consolidating weed spraying, eliminating contract work, and purchasing a one-operator spray rig; and (6) developing a maintenance management system designed to plan and control work on an annual basis. For further information, contact:

Gary Goelitz, Administrative Assistant  
39700 Civic Center Drive, Fremont, California 94538  
(415) 796-3438

### Multijurisdictional Maintenance

Salem, Oregon (77,700), has established an agency which manages and maintains parks and recreation facilities for three jurisdictions. Each jurisdiction pays a share on the basis of the amount of labor and supplies used. For further information, contact:

Robert Mahey, Parks Department  
City Hall, Salem, Oregon 97301  
(503) 588-6234

## Consolidation of Entire City's Grounds Maintenance

Normal, Illinois (32,091), has placed all grounds maintenance, including libraries, rights-of-way, and other public property, under the control of the parks and recreation department. For further information, contact:

David Anderson, City Manager  
124 North Street, Normal, Illinois 61761  
(309) 452-1106

## Work Measurement

Santa Rosa, California (65,000), has analyzed its parks maintenance operations and identified opportunities for improvement. Work measures have been developed, and specific standards have been set and implemented. For further information, contact:

Michael Gleason, Assistant to the City Manager  
P.O. Box 1678, Santa Rosa, California 95403  
(707) 528-5361

New York, New York (7,867,760), has implemented a city-wide parks maintenance improvement program based on work standards and performance reporting. For further information, contact:

Eugene B. Zmyj, Parks and Recreation  
830 5th Avenue, New York, New York 10021  
(212) 360-3441

Fairfax County, Virginia (455,000), has analyzed gains to be realized through a four-day work week for park maintenance crews which would reduce travel time and increase equipment utilization. Fairfax County has also analyzed all maintenance activities for each type of park facility. As a result of this analysis, maintenance activity frequency and productivity guidelines, as well as personnel, operating, and capital cost guidelines, have been developed for each type of park facility. For further information, contact:

John Proctor, Chief, Community Development,  
Office of Research and Statistics  
4100 Chain Bridge Road, Fairfax, Virginia 22030  
(703) 691-3341

Syracuse, New York (197,297), has developed and implemented a record keeping system that logs daily personnel and materials costs by activity and location. Analysis of the data will identify areas for potential cost savings. For further information, contact:

Frank J. Kelly, Commissioner, Parks and Recreation  
412 Spencer Street, Syracuse, New York 13202  
(315) 473-4330

Wilmington, Delaware (80,386), has conducted time-and-motion studies for all maintenance functions of its parks department. These studies have led to the development of a work scheduling system that has resulted in an annual savings of \$115,000 (a 27 percent savings). For further information, contact:

Bruce Smith, Budget Management Review Team  
377 Public Building, Wilmington, Delaware 19801  
(mail inquiries only, please)



## EQUIPMENT

### Vehicles

Nashville, Tennessee (448,000), has experimented with the Elephant-Vac, a single-operator litter control device. Nashville has also experimented with the Weed-Eater, which cuts grass to surface level faster than conventional mowers do. For further information, contact:

Frank Atchly, Park Administrator  
Centennial Park Office, Nashville, Tennessee 37213  
(615) 747-4425

Little Rock, Arkansas (139,000), has purchased a hydraulic seven-gang lawnmower with several advantages over conventional mowers: (1) it produces better cuts on wet spots, corners, and pavement edges; (2) it has the capability to negotiate steeper grades; and (3) it reduces overall mowing time with a smaller turning radius. For further information, contact:

Grainger Williams, Park Superintendent  
City Hall, Little Rock, Arkansas 72201  
(501) 376-6111, extension 206

Worthington, Ohio (16,500), has converted an infrequently used three-wheel scooter into a valuable piece of equipment for summer use. A small trailer attached to the scooter hauls lawnmowers and related equipment to neighborhood playgrounds. For further information, contact:

Dan Stainbrook, Director of Service  
380 Highland Avenue, Worthington, Ohio 43805  
(513) 436-3100

New Brighton, Minnesota (25,000), has modified its tanker truck to apply water through a pressure nozzle system. The truck has been used to flood ice areas, reducing labor costs by 50 percent, and to implement a street-flushing program. For further information, contact:

Maurice Anderson, Director, Parks and Recreation  
803 5th Avenue, N.W., New Brighton, Minnesota 55112  
(612) 633-1533

Scottsdale, Arizona (80,000), has purchased a military surplus ambulance, furnished it with an array of games and sports equipment, and made it available by reservation for group gatherings throughout the city. For further information, contact:

L. B. Scacewater, Parks and Recreation Director  
3939 Civic Center Plaza, Scottsdale, Arizona 85251  
(602) 944-2409

### Miscellaneous Equipment

Winston-Salem, North Carolina (133,000), uses a centrifugal force spray unit to decrease the time required to apply fungicides and insecticides. The unit, which is placed on a Cushman cart, has a swing boom for reaching specific target areas. For further information, contact:

Alan Joines, Assistant City Manager  
P.O. Box 2511, Winston-Salem, North Carolina 27102  
(919) 727-2063

Willingboro, New Jersey (43,000), uses a "disk harrow disk," a device which is attached to the front-end bucket of a backhoe, enabling efficient and neat removal of grass, weeds, and debris from curb sides. For further information, contact:

John D. Tegley, Town Manager  
Municipal Complex, Salem Road, Willingboro, New Jersey 08046  
(609) 877-2200

## MULTIJURISDICTIONAL SERVICES

Riverview, Michigan (11,300), and its board of education have established a joint body to oversee city and school recreation programs. A recreation administrator, whose salary is paid jointly, has been hired to run the program. Results reported are improved coordination, increased use of facilities, and better planning for future recreational needs. For further information, contact:

Harry Kollman, City Manager  
17700 Fort Street, Riverview, Michigan 48192  
(313) 283-2660

Fond du Lac, Wisconsin (36,500), has constructed a swimming pool for the use of both city and county residents. The county contributed to construction costs, and the city maintains and operates the pool. For further information, contact:

Myron J. Medin, Jr., City Manager  
P.O. Box 150, Fond du Lac, Wisconsin 54935  
(414) 922-2600

Weatherford, Texas (11,800), and its board of education have developed a joint education-recreation program. For further information, contact:

Mark B. Reynolds, City Manager  
P.O. Box 255, Weatherford, Texas 76086  
(817) 594-5441

Hastings, Minnesota (13,457), and its school district have established a coordinated recreation program. The city provides maintenance services while the school district administers the program. For further information, contact:

Thomas Simmons, Administrative Assistant  
100 Sibley Street, Hastings, Minnesota 55033  
(612) 437-4127

## LIBRARY SERVICES

### Expanding Services

Casper, Wyoming (39,400), began using cable television in 1971 to answer public library reference questions, telecast story programs and public forums, present special holiday programming, and communicate with local public interest groups. The CATV channel reaches 70 percent of the community. For further information, contact:

John F. Peters, Director, Natrona County Public Library  
Casper, Wyoming 82601  
(307) 234-1553

### Program Analysis

Phoenix, Arizona (667,846), has analyzed the operations of its library department. Program goals and objectives have been established and priority areas for policy review have been identified. For further information, contact:

Ray Baldine, Assistant Budget and Research Director  
251 West Washington Street, Phoenix, Arizona 85003  
(602) 262-6011

### Administrative Reorganization

Dallas, Texas (844,000), has reorganized the management personnel of its 14 individual libraries into a three-zone structure, with a manager and a community service librarian for each zone. Another aspect of the reorganization has been the wide use of paraprofessionals. These changes have enabled the Dallas public library to apply \$73,800 from existing operations toward personnel needs in new branch libraries. For further information, contact:

Linda Allmand, Chief of Branch Services  
1954 Commerce Street, Dallas, Texas 75201  
(214) 748-9071

## INSPECTIONS

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## Decentralization of Inspection Services

■ Fairfax County, Virginia (455,000), has decentralized its inspection office and as a result, inspectors report to the field office closest to their work area. The inspectors have also been relieved of certain clerical and scheduling responsibilities, which frees more of their time for inspections. For further information, contact:

John Proctor, Management Analyst, Office of Research & Statistics  
4100 Chain Bridge Road, Fairfax, Virginia 22830  
(703) 691-3341. Report #18503, page 114

## Cross-Training of Inspectors

Several cities have trained inspectors to handle all building and construction permits. Consequently, productivity has been increased and motor vehicles are used less, resulting in lower maintenance costs and gas consumption. For further information, contact:

### City of Scottsdale (92,000)

Tim Bray, Community Development Department Head  
3939 Civic Center Plaza, Scottsdale, Arizona 85251  
(602) 994-2491

### City of Phoenix (667,846)

Mike Sienerth, Building Safety Director  
251 West Washington, Phoenix, Arizona 85003  
(602) 262-6901

Dallas, Texas (844,000), has inaugurated the Integrated Inspection Program to "cross-train" personnel from the following departments: litter control division; fire department; health department; zoning section; urban rehabilitation division; plumbing, electrical, and building inspection; and action center. These employees are authorized to identify, report, and correct common multi-code violations. As a result of this program, over 80 percent of violations reported have been brought into compliance by the originating inspector, and the remaining violations have been resolved by the departments with primary enforcement responsibility. For further information, contact:

Jerry D. Morris, Integrated Inspection Supervisor  
1500 West Mockingbird, Dallas, Texas 75235  
(214) 630-1111

## Consolidation of Municipal Inspections and Code Enforcement

Normal, Illinois (26,400), has combined all inspection activities, including building inspection, fire prevention and inspection, and public works inspection into one inspections department. For further information, contact:

David Anderson, City Manager  
124 North Street, Normal, Illinois 61761  
(309) 452-1106

## Consumer Protection

Dallas, Texas (844,000), has increased productivity by converting from specialist inspectors to general inspectors who conduct all device and package inspections at each location. This has enabled the inspections department to assign smaller territories to each inspector and to eliminate duplicate coverage. As a result, the number of package and device inspections increased 29 percent. For further information, contact:

Stephen D. Hunt, Administrative Assistant  
Municipal Building, Room 108, Dallas, Texas 75201  
(mail inquiries only, please)

## Permits

Phoenix, Arizona (667,846), has designed a single form to replace several types of complicated building permit forms. As a result, costs have been reduced. For further information, contact:

Mike Sienerth, Building Safety Director  
251 West Washington, Phoenix, Arizona 85003  
(602) 262-6901

Chula Vista, California (68,000), has instituted a single permit system in its building and housing department. The general contractor, owner, or agent may take out all the permits necessary for his or her job. For further information, contact:

E. J. Grady, Director of Building and Housing  
City of Chula Vista, Chula Vista, California 92010  
(714) 427-3300

Chula Vista, California (68,000), sells its minor plumbing and electrical permits (three copies each) in books of 15. When a job is done the contractor posts a copy on the job, keeps a copy for his records, and sends the third copy to the city. When the department receives the mailed copy, an inspection is scheduled. This system saves the contractor considerable time and money by not involving a trip to the city each time he or she has a small job. The city also benefits by selling permits for small jobs that might otherwise have been unregistered. For further information, contact:

E. J. Grady, Director of Building and Housing  
City of Chula Vista, Chula Vista, California 92010  
(714) 427-3300

### Burglary Prevention Code

Plainfield, New Jersey (46,900), has adopted a burglary prevention code that sets minimum standards for commercial, industrial, and multifamily dwellings. The code is part of the city's building code and is enforced by a team of police, fire, and building inspection employees. The average cost of security improvements to a property owner affected by the code is approximately \$50. For further information, contact:

Lawrence Bashe, City Administrator  
515 Watchung Avenue, Plainfield, New Jersey 07061  
(201) 753-3227

### Multidepartmental Review of Construction Plans

Grants Pass, Oregon (13,500), has created a plans review committee composed of personnel from various departments involved in building and construction plans checking. Personnel from the various departments apply their expertise to specific aspects of the plans review process. For further information, contact:

Richard White, Fire Chief  
Central Station, Grants Pass, Oregon 97526  
(503) 476-8801



## Measuring/Improving Productivity and Effectiveness

Fairfax County, Virginia (455,000), has devised a technique for measuring the output per man-hour and the effectiveness of the building inspection function. The project includes defining all inspections to be performed and determining the time required for each inspection. A quality control system has also been devised to measure effectiveness. For further information, contact:

John Proctor, Management Analyst, Office of Research and Statistics  
4100 Chain Bridge Road, Fairfax, Virginia 22830  
(703) 691-3341

Fremont, California (115,000), has analyzed the activities of the inspections department and has developed a method of projecting future work load on the basis of the average number of inspections per permit issued and the average time to complete an inspection. A supervised work scheduling system has been recommended to cut down self-initiated inspections. For further information, contact:

Art Lorenzini, Administrative Assistant  
39700 Civic Center Drive, Fremont, California 94538  
(415) 796-3438

## Work Measurement

Wilmington, Delaware (80,386), has contracted with a consultant to develop and install a work scheduling system as a result of excessive costs, insufficient management control within the inspections department, and public complaints about service. With the new system, annual savings of \$200,000 have been realized through substantial manpower reductions and better management control. For further information, contact:

Bruce A. Smith, Budget Management Review Team  
377 Public Building, Wilmington, Delaware 19801  
(302) 571-4110

## Communications

Chula Vista, California (68,000), has purchased a telephone answering device to handle requests for inspection 24 hours a day. This reduces the number of inspection calls in the first half hour after the office is open. Chula Vista has also established a two-way communications system between the inspectors' vehicles and the office. For further

information, contact:

E. J. Grady, Director of Building and Housing  
City of Chula Vista, Chula Vista, California 92010  
(714) 427-3300

### Housing

Plainfield, New Jersey (46,900), has negotiated with the Federal government to acquire the large number of structurally sound, abandoned dwelling units which are Federal Housing Administration and Veterans Administration foreclosures. Plainfield has hired unemployed local residents with Public Service Employment funds to rehabilitate some of these homes. The money received from the sale of these homes is put in a revolving fund which provides for further rehabilitation. Other rehabilitation work is done by contract out of the same revolving fund. For further information, contact:

Lawrence Bashé, City Administrator  
515 Watchung Avenue, Plainfield, New Jersey 07061  
(201) 753-3227

Phoenix, Arizona (667,846), has established an awards program for visual property improvements. The program has helped stimulate community and business interest in improving run-down property. Awards are presented for landscape design, exterior remodeling, and graphic design. New construction projects are not eligible for awards. For further information, contact:

J. Michael Urie, Management Intern  
251 West Washington, Room 801, Phoenix, Arizona 85003  
(602) 262-4851

## ENERGY CONSERVATION

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## Fuel Rationing System

Worcester, Massachusetts (176,600), has installed a computer-based fuel dispensing system. Fuel pumps at the central garage are activated by credit card and transmit the user's vehicle number and amount of fuel dispensed to the computer. This has resulted in reduced municipal fuel consumption. For further information, contact:

Francis McGrath, City Manager, or  
Vincent Hynes, Director of Public Works  
City Hall, Worcester, Massachusetts 01608  
(617) 798-8151

## More Economical Cars

Glendale, Arizona (67,298), has replaced full-size sedans with subcompacts with better gas mileage (18 miles per gallon) and lower maintenance costs. The police and fire departments are not using the subcompacts. For further information, contact:

Stanley F. Van de Putte, City Manager  
P.O. Box 1556, Glendale, Arizona 85301  
(602) 939-9711

Janesville, Wisconsin (46,400), has replaced full-size staff sedans with new and used compact cars. Average operating and maintenance costs were reported to be 2.36 cents per mile for six compacts compared to 10.37 cents per mile for four full-size sedans. Compact fuel consumption was 24.9 miles per gallon, compared to 10.4 for the sedans. For further information, contact:

Roy Eckrose, Director of Public Works  
18 North Jackson Street, Janesville, Wisconsin 53545  
(608) 754-2811

Clemson, South Carolina (6,000), has replaced full-size police and fire sedans with subcompacts with better gas mileage and lower maintenance costs. For further information, contact:

Rob Ware, City Administrator  
City Hall, Clemson, South Carolina 29631  
(803) 654-2636

Naperville, Illinois (31,000), has experimented with the use of electric "citicars" for several types of municipal employees. Purchase price is \$2,400 per vehicle. Although the vehicles are not totally satisfactory (mileage is limited to 20-30 miles per charge), they do show promise for some specific applications, such as utility and parking meter reading. For further information, contact:

Steve Hyett, Community Service Officer  
175 West Jackson Avenue, Naperville, Illinois 60540  
(312) 420-6004

### Carpools

Fairfax County, Virginia (455,000), has implemented an employee carpool program which provides computerized match-up by area and arrival/departure times. Carpool vehicles also receive preferential parking. For further information, contact:

Martin Flaherty, Office of Research and Statistics  
4100 Chain Bridge Road, Fairfax, Virginia 22030  
(703) 691-2584

### Relocation of Fueling Stations

Fairfax County, Virginia (455,000), has developed a fueling station location package. The computerized system identifies the optimal number and location of stations as well as fuel volume and personnel requirements. For further information, contact:

Samuel A. Finz, Office of Research and Statistics  
4100 Chain Bridge Road, Fairfax, Virginia 22030  
(mail inquiries only, please)

### Recycling

The South Carolina Public Service Authority sells fly ash from three of its electricity generating plants to a cement manufacturing firm. For further information, contact:

Jerry Stafford, Public Relations Specialist  
223 North Live Oak Drive, Moncks Corner, North Carolina 29461  
(803) 899-2121

## Street Lighting

Metro Toronto, Canada (2,200,000), has accrued several benefits as a result of its conversion from fluorescent to low-pressure sodium street lights. The sodium lights provide improved and more uniform illumination and consume less energy than fluorescent lights. Savings of \$1.5 million have been reported, and citizen reaction has been excellent. For further information, contact:

J. D. George, Chief, Analytic Services  
Metro Toronto Roads and Traffic Department  
401 Bay Street, 24th Floor, Toronto, Ontario M9A 4C4  
(mail inquiries only, please)

## Energy Conservation in Buildings

Davis, California (33,000), has incorporated energy conservation requirements into its building code to ensure the use of conservation techniques in the development of residential structures. For further information, contact:

Doran Maxwell, Building Official  
226 F Street, Davis, California 95616  
(916) 756-3740

Dallas, Texas (844,000), has established an academy to train cleaning staff in new techniques and, where feasible, has eliminated the night shift for custodial workers. Now that buildings are cleaned during the day, it is no longer necessary to supply heating and air conditioning for two shifts of workers. An automated system which already controls temperature will be expanded to provide security and fire protection for municipal buildings. For further information, contact:

H. E. Drumwright, Director of Building Services, or  
M. W. Whitsitt, Assistant Director of Building Services  
1500 West Mockingbird, Dallas, Texas 75235  
(mail inquiries only, please)

## Traffic Control

Delaware, Ohio (15,000), has coordinated 16 signalized intersections, and has installed new signal heads and solid state controllers as well as additional pavement markings. Anticipated results include reductions in energy consumption, time, pollution, and accidents. For further information, contact:

Rex Sprague, City Engineer  
13 South Sanduskey Street, Delaware, Ohio 43015  
(614) 363-1965

## SOCIAL SERVICES

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## Coordination with United Way

Lawndale, California (24,800), has entered into an agreement with the United Way to provide the latter with three city-owned bungalows rent free in exchange for expanded social and human resource services. Services now being provided include: Meals on Wheels; marriage, family, and child counseling; single parent counseling; and adoption assistance. During the first year of operation, the center provided \$33,000 worth of services for a cost of only \$3,000 to the city. For further information, contact:

Paula Cone, Director of Social Services  
P.O. Box 98, Lawndale, California 90260  
(213) 973-4321

## Unemployment

Carson, California (79,000), has created a job clearinghouse to register unemployed Carson residents and Carson employers. The clearinghouse takes job orders and acts as a referral agency. After 6 months, 22 percent of the businesses are registered, 21 percent of the unemployed residents are registered, and 15 percent of those registered have been employed. For further information, contact:

Juritta Brown, Personnel Analyst  
21919 South Avalon Boulevard, Carson, California 90745  
(mail inquiries only, please)

## Juveniles

Burlington County, New Jersey (330,000), has established the Adolescent Offender Treatment Unit as a community-based treatment program for young people with multiple delinquent offenses. Cooperation with the program is usually a condition of probation. The unit works closely with probation personnel, providing a consistent approach to the client. The results of the project have been promising, in terms of both client involvement and effectiveness. Program participants have experienced a recidivism rate 50 percent less than a random sample of probationers not referred to the unit. For further information, contact:

Richard M. Quane, Director, Adolescent Offender Treatment Unit  
205 High Street, Mount Holly, New Jersey 08060  
(609) 261-3330

Virginia Beach (172,000) and Chesapeake (90,000), Virginia, have established the Pendleton Project, a community based treatment center directed toward 6- to 12-year-old children with behavioral problems. Emphasis is placed on treating those behaviors which are likely to result in contact with police, the courts, or mental health agencies. The cost to deliver the service is about \$1,440 per child per year; the average cost of alternative treatment is \$28,000 per child per year. For further information, contact:

Richard C. Pooley, Ph.D., Director, The Pendleton Project  
1000 South Birdneck Road, Virginia Beach, Virginia 23451  
(804) 425-6692

### Handicapped Children

Davis, California (33,000), has instituted a Life Enrichment Program for handicapped children which includes the use of playgrounds as well as transportation to these playgrounds. For further information, contact:

Howard L. Reese, City Manager  
City Hall, Davis, California 95616  
(mail inquiries only, please)

### Police Liaison

Elk Grove Village, Illinois (24,516), has established a social service section within the police department to provide early intervention and treatment for offenders to prevent further criminal activity. With the social service program located in the police station, counseling services can be introduced at the earliest point of conflict with the law. For further information, contact:

Charles A. Willis, Village Manager  
901 Wellington Avenue, Elk Grove Village, Illinois 60007  
(mail inquiries only, please)

## Program Analysis

Phoenix, Arizona (667,846), has conducted a program analysis review of LEAP (Leadership and Education for the Advancement of Phoenix), the city's social service agency. The study analyzed the extent of the city's commitment to human services, conducted a citizen needs assessment, and evaluated the effectiveness of existing LEAP programs. For further information, contact:

Patrick Manion, Management Assistant  
251 West Washington Street, Phoenix, Arizona 85003  
(602) 262-4844

San Diego County, California (1,500,000), has analyzed the county's food stamp program and recommended a number of improvements which have been implemented. These include a new scheduling system which allows management to control the work load and a new pre-screening process intended to eliminate ineligible clients prior to their being processed through the entire system. By eliminating unnecessary functions, as well as shifting and reordering work processes and redesigning forms, systems productivity (the number of clients the system can handle per day) has increased by 137 percent, error rates have decreased by 24 percent, and annual cost savings of \$227,000 have been projected. For further information, contact:

James W. Hunt, Administrative Assistant III  
7949 Mission Center Court, San Diego, California 92108  
(714) 560-3631

## Work Measurement

The State of Washington has applied work measurement techniques to various operations in its Department of Social and Health Services. Work standards and performance measures have been established for public assistance income maintenance, nursing care consultants, and nursing home surveyors, as well as support services in correctional, mental health, and developmental disability institutions. For further information, contact:

John E. Cordy, Chief, Office of Management  
P.O. Box 1788, Olympia, Washington 98504  
(mail inquiries only, please)

## Volunteers

Livonia, Michigan (115,000), established the Livonia Office of Volunteer Energies (L.O.V.E.) in 1974 with a 1-year ACTION grant. L.O.V.E., currently financed with \$25,000 from the city's general fund, provides the city with approximately \$70,000 worth of services annually. Programs operated by L.O.V.E. include: (1) placement of selected first offenders as "volunteers" in some kind of community service, as assigned by the court to avoid a permanent criminal record; (2) recruitment of volunteers to staff school health clinics; (3) establishment of a youth volunteer program to supply senior citizens with snow-shoveling, lawn-cutting, and assorted other services; (4) administration of a program to identify child abusers; and a variety of other types of programs. For further information, contact:

Joan Duggan, Director, Office of Volunteer Energies  
33001 Five Mile Road, Livonia, Michigan 48154  
(313) 421-2000, extension 221

JURISDICTIONAL INDEX

ARIZONA

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## NEW REPORTS AVAILABLE

### GENERAL MANAGEMENT

Measuring the Effectiveness of Basic Municipal Services: Initial Report (Urban Institute and International City Management Association, see p. 6) -- Lists of measures of effectiveness for nine categories of municipal services, suggestions for data collection procedures, discussion of uses for and interpretation of effectiveness data. 118 pp. \$4.00. Report #19143

The Conduct of a Performance Audit of the Department of Public Safety (Sunnyvale, California, see p. 7) -- Report by private accounting firm describing preparation and procedures for auditing, benefits of process as tool for continuous management control and improvement of performance. 65 pp. \$4.75. Report #19119

Evaluation Process Handbook (St. Petersburg, Florida, see p. 4) -- Procedures to assess community needs, to develop a service program to meet those needs, and to evaluate extent to which program meets its objectives. Five designs for program evaluation, including data collection/analysis procedures. 130 pp. \$8.00. Report #19100

Responsive Public Services Program (Savannah, Georgia, see p. 5) -- Techniques to measure effectiveness of 11 categories of services in each neighborhood, establish numerical rating system, compute city norm for each condition, tabulate standard deviation to identify problem areas. 140 pp. \$8.50. Report #19135

Service Management System (Palo Alto, California, see pp. 2,5) -- Describes system to develop programs to meet citizens' needs, allocate resources, and increase accountability. Includes practical tips on implementation strategies and resources required. 160 pp. \$9.50. Report #19127

### PERSONNEL

Assessment Lab (Orem City, Utah, see p. 22) -- Performance simulation exercises designed to produce lowcost, objective evaluations of managerial abilities of candidates for promotion. Rating guidelines for evaluators. Outline of personnel costs required for development, use of system. 8 pp. \$2.00. Report #19186

Loss Prevention Manual (Tucson, Arizona, see p. 25) -- Employee safety program handbook. Specifies responsibilities of department and division heads, supervisory personnel, and other employees. Covers organization of safety committees, investigation and reporting procedures for accidents, occupational safety and health inspections. 50 pp. \$4.00. Report #19194

## CITIZEN INVOLVEMENT

New Directions for Sunnyvale: A Process for Participation (Sunnyvale, California, see p. 29) -- Description of year-long citizen participation project which included staff workshops, design and conduct of citizen survey, day-long town workshop, and development of recommendations by citizen task forces. 44 pp. \$3.75. Report #19151

Multi-Service Citizen Survey (St. Petersburg, Florida, see p. 4) -- Includes all survey questions, discussion of sampling design and survey method, guidelines for data analysis, display of response data for selected question. 55 pp. \$4.25. Report #19178

## PUBLIC WORKS (SOLID WASTE COLLECTION)

A Study of Solid Waste Collection Practices (Wilmington, Delaware, see p. 59) -- Describes Wilmington's reduction from 5-man to 3-man crews. Includes discussion of effective techniques for press relations and strategies for labor negotiations during planning and implementation stages of crew reduction process. 44 pp. \$3.75. Report #19208

Mechanized Contained Refuse Collection System (Phoenix, Arizona, see p. 58) -- Analyzes effectiveness and cost savings realized through use of 1-man side loaders with mechanical loading devices for alley and street collection; includes charts, graphs, discussion of problems and advantages of system. 56 pp. \$4.25. Report #19216

## PUBLIC SAFETY

Report Writing Manual (California Innovations Group, see p. 43) -- Discusses requirements for each type of police report (armed robbery, stolen car, etc.); includes sample reports, flow charts the use of reports, explaining what should be included and why. 87 pp. \$5.75. Report #19224

Police/Fire Specialists Program (Flagstaff, Arizona, see p. 36) -- Describes cross-training program for Police/Fire specialists and reduction of fire fighters' work week from 65 to 40 hours. Includes analyses of program's impact on budget, emergency response time, utilization of fire fighters' active duty time. Account of city manager's efforts to cope with barrage of union tactics to defeat program. 70 pp. \$4.75. Report #19232

Police Unions (Management Information Service report) -- Overview of rise of police unions, current status of collective bargaining, bargaining unit composition, suggestions for preparations for negotiations, conduct of negotiations, development of strike contingency plans; includes resource guide of police employee and management organizations. 19 pp. \$5.00. Report #19240

Vandalism (Management Information Service report) -- Examines effects of vandalism on taxpayers and on the school community; discusses theories about motives of vandals; presents variety of successful programs to stem rising costs of vandalism. 16 pp. \$5.00. Report #19259

PREVIOUSLY OFFERED REPORTS -- STILL AVAILABLE

GENERAL MANAGEMENT

Program Performance Budget System - Task Force Report (San Diego, California, see p. 1) -- Results of an MBO-PPBS task force study. Provides system development and implementation guidelines. While budget format is specific, guidelines may be more generally applicable.

24 pp. \$2.50. Report #18538

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Program - POPS Field Manual (Multnomah County, Oregon) -- A manual for program managers in defining program goals and objectives establishing target levels and productivity indicators for monitoring program performance.

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Miami Management Improvement Program: Findings in the Finance Department (Miami, Florida) --

A management consultant study leading to recommendations for cost savings and improved procedures and services in the finance department.

80 pp. \$5.25. Report #19437

Work Measurement Applied to Municipal Services (Riverside, California) -- The text of a presentation on Methods Time Measurement (MTM). Summarizes the strategy, successes and problems involved in implementing MTM in several city departments.

28 pp. \$2.50. Report #18651

Program Management Manual (Garden Grove, California) -- A basic explanation of the city's management information system. Can be used as an employee reference manual. Includes program descriptions and content, and use of financial and performance reports.

66 pp. \$4.00. Report #18546

PUBLIC SAFETY

Investigation Control and Management System (Sunnyvale, California) --

Describes the content and use of an automated information system which supports a police investigative program.

108 pp. \$6.50. Report #18554

Fire Safety Patrol Program (Plainfield, New Jersey, see p. 36) --

A brief history and description of the organization, training needs, equipment requirements, operating procedures, and first three years' accomplishments.

30 pp. \$2.50. Report #18511

Analysis of the Special Emergency Response Vehicle Program (Fairfax County, Virginia, see p. 53) --

Contains a needs analysis and a methodology for determining the number and type of vehicles and personnel required to implement the program. Also a summary cost-benefit analysis of the program.

12 pp. \$2.00. Report #18597

## INSPECTIONS

Miami Management Improvement Program: Findings in the Building Department (Miami, Florida) --  
A management consultant study leading to recommendations for cost savings and improved services in the building department.  
40 pp. \$3.25, Report #19429

Productivity and Effectiveness of Inspection Services (Fairfax County, Virginia, see p. 89) --  
Describes the development of a program to increase and measure the efficiency and effectiveness of inspection services. Summarizes how work standards were developed. Outlines improvements achieved as a result of the analysis.  
15 pp. \$2.00. Report #18503

## PUBLIC WORKS

Comprehensive Management Planning Program: Equipment Division (San Diego, California, see p. 7) --  
Program background, methodology, implementation, and operation. Outlines improvements and savings achieved as a result of the program.  
55 pp. \$4.00. Report #18600

Uncontainable Refuse Policy Analysis (Phoenix, Arizona, see p. 61) --  
A study of the city's uncontainable refuse problem. Includes community needs analysis, surveys of other cities' programs, a statement of evaluation criteria, and a presentation of alternative service delivery options.  
96 pp. \$6.00. Report #18643

## PARKS/RECREATION/LIBRARIES

Comprehensive Management Planning Program - Parks and Recreation (San Diego, California, see p. 7) --  
Describes a program developed by a management consultant. Program design, objectives, operation, training requirements, and recommendations for cost savings and improved services.  
112 pp. \$6.50. Report #18627

Library Department Program Analysis and Review (Phoenix, Arizona) ---  
A program performance report for the library department. Includes a three-level program structure, the identification of measurable program objectives, and the definition of existing service levels.  
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Gardening Measurement and Analysis Project (San Diego County, California, see p. 7) --  
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