# Data Management in the Fire Service

## DATA - It doesn't just happen!

**Data - Defined -** Factual information, especially information organized for analysis or used to reason or make decisions.
**What gets measured gets done!**

**Purpose** - to help define actions and direction of an organization.

**Organize Needs** - First things first, systematic approach to actions

**Training** - Direction, keep improving actions and efficiency

**Hardware/Software** - keep organizational machine efficient

### Data Needs

**Reporting-** meet reporting requirements/regulation

**Revenue-** increase revenue, cost recovery

**Expense-** justify expense, fiscal responsibility

**Cost Analysis-** efficiency vs. effectiveness

**Performance based-** Providing services efficiently

### Pieces of Data-

**Data fields-** specific information such as text, numbers, dates, times, etc.

**Tables-** List of information relative to specific time, action or effect

**Joins-** between tables to relate information in a defined order

**Database-** group or set of tables joined to present access to related information

**Buckets-** an analogy to explain the holding of information and scooping out relevant information

**Reporting-** the scooping out of the data bucket to present information, based on size, shape and capacity of scoop

**Back up-** process to keep data in reliable state due to changing environment

**Restore-** bringing data back to previous reliable state of information

**Upgrade-** changes to overall program to correct anomalies or storage or function of system

**Cost Analysis-** Rationalization of investment of systems, processes, oversight and implementation to find efficient organized methods to obtain, use, report and manage data (Information Systems)

### P.O.S.D.CO.R.B.

**P - Planning-**direction of goals... identify needs and wants

**O - Organizing-**identify pieces needed to meet goals, equipment, personnel, and processes

**S - Staffing-**define responsibility, accountability, participation

**D - Directing-**establish policy, procedure, guidelines and actions to meet goals

**Co - Coordinating-**training, overview, setting benchmarks

**R - Resources-** implement purchase of equipment, training, adopting of policies and procedures, etc.

**B - Budgeting-**timelines, costs requirements, justification, bang for the buck, etc.

### Data Resources

SQL
Excel/Access
Pen/PENCIL
People
Computer Systems
Time Planning

**Efficiency + Cooperation = Success**

**There is a reason it's called the "Information Age"**

**Build from a baseline of information**

### Data Answers the Questions regarding

Justifications
Budget + -
Personnel
Equipment
Growth
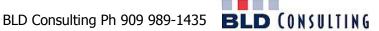Service changes
Benefits
Cause and effects
Resources
Demographics
Effects of Planning, Organizing and Managing

**DATA DRIVES DIRECTION**

### Obstacles, Problems or Shortcomings to Data Projects

**Commitments to Data-** follow through, support for following plan

**Assigned to Manage-**accountability and responsibility, involvement

**Lack of Managing-** making do! runs itself, need to pay attention

**No Plan-** No purpose, we always do it this way just because...

**Ad hoc use-** non defined results, not following plan

**Lack of Planning-** develops specialized use, not defining direction

**Non Defined Reporting-** lack of focus and purpose, "let's see"

**Bad Data-** lack of planning, limited use of information, inconsistency

## DATA MANTRA- CONSISTENCY, CONTINGENCIES, PURPOSE

BLD CONSULTING   http://www.FireRMSData.com   BLD Consulting Ph 909 989-1435   BLD CONSULTING

# Data Management in the Fire Service

Invest time, effort, resources and personnel in the processes of a data management plan and your organization will realize a return and dividend of efficiency, proficiency, direction and purpose.

Assistance and Needs - Develop relationship with IT Support + Technical Assistance = Success

| Develop | Goals and Objectives |
|---|---|
| Plan | Strategy and tactics to realize goals and objectives |
| Implement | Actions and Efforts |
| Manage | Checks and Balances of effort and efficiency |
| Report | Measure, refine, and re-task actions towards goals |
| Present | Justification of investment towards objectives |

## The Fire Service- *Tools of the Trade!*
*Ladders, Axes, Chainsaws, Computers*

## Occupancy Data Goals

- Community Safety
- Maintain Current Inventory
- Adherence to Policy and Procedures
- Suppression Training
- Prevention Training
- Administration Training
- Reports, Analysis, Statistics
- Inspection Targets/Target Hazards
- Migrate to Electronic Collection
- Increase Productivity
- Measure Accuracy and Efficiency
- Cost Recovery
- Presentation and Justification

## *Manage your data and increase your "BYTE" of the budget*

## Measurable Actions Lead to Professional Services

### 10 Steps to a Data Management Process

1. Set goals and objectives
2. Develop a data management plan
3. Configure systems and steps to obtain data
4. Document policies, procedures and business practices and work flow
5. Train personnel, document the way work is performed
6. Collect data - do the work, actions of work, follow the plan
7. Validate the data collected, baselines, accuracy, relevancy
8. Report the data, graphs, charts, statistics, quantify
9. Analyze data, comparisons, cause and effects, reasoning
10. Manage the data, corrective measures increase efficiencies, accountability, responsibility, coordination, cooperation

*The Data Management Plan is a constantly evolving and repeating process.*
*Each **step** of the Data Management Plan is based on*
*Who, What, When, Where, How and Why*

## Is there a difference between?

**What data you need**  Requirements, established goals and objectives
**What data you want**  "After the fact" requests, are you collecting what you want?
**What you are doing**  Consistent, Reliable, Repeatable, Measurable Effort

### Concepts of Data Collection

Hardware-  Physical devices, computers, servers, tablets, keyboards, MDC's
Software-  Operating Systems and Programs on hardware devices to perform specific functions
Wireless-  Connectivity between devices, over the air, "no wires"
Standalone-  Can perform without connection to another device, or program
Cloud-  Remote location, Network for storing or accessing data
Web-based-Ability to log into internet to perform functions

**Data Management for all areas of the Fire Service...**
**(Fires, EMS, Hazardous Materials, Confined Space, Wildland, Training, Personnel, Communications, Dispatch, Staffing, Apparatus, Vehicles, Tools, Equipment, Repair, Supplies Resources, Activity, Actions, Inventory, History, Future, Inspections, Training, Investigations, Performance, etc.**