

CORNERSTONE

FIRE AND EMERGENCY SERVICES

October 2007

How to Resolve Fire Service Field Deployment Challenges**By: Stewart W. Gary, MPA, Principal**

Civic leaders need to know that there are no mandatory federal or state regulations directing a minimum level of fire service response times, fire crew locations and desired outcomes. There are the Insurance Service Office (ISO) Fire Protection Grading Schedule measures and the National Fire Protection Association has *recommended* standards on fire service deployment. However, America was founded on local control and the actual level of fire services is left up to local elected officials.

Thus, communities often provide the level of fire services that they can afford, which is not always what they would desire. What the body of regulations on the fire service does provide is that *if fire services are provided at all, they must*

be done so with the safety of the firefighters and citizens in mind. So how do local agencies plan for and fund an appropriate level of fire services?

Citygate Associates believes in a comprehensive systems approach to understanding, evaluating and designing the level of fire services in your community. Each agency can match local need (risks and expectations) with the costs of various levels of service. In an informed public policy debate, elected officials “purchase” the fire, rescue, and EMS service levels (insurance) the community needs and can afford. In this way, a “one size fits all” measure is not directed at a community that might not need or want it.

Fire Deployment Explained

At its most elemental measure, fire department deployment, simply stated, is about the *speed* and *weight* of the attack. Speed calls for first-due, all risk intervention units (engines, trucks and ambulance companies) strategically located across a community. These units are tasked with controlling everyday average emergencies without the incident escalating to greater size, which then unnecessarily depletes the department resources as multiple requests for service occur. Weight is about multiple-unit response for significant emergencies like a room and contents structure fire, a multiple-patient incident, a vehicle accident with extrication required, or a

heavy rescue incident. In these situations, departments must assemble enough firefighters in a reasonable period to control the emergency safely without it escalating to greater alarms.

Thus, small fires and medical emergencies require a single or two-unit response (engine and ambulance) with a quick response time. Larger incidents require more crews. In either case, if the crews arrive too late or the total personnel are too few for the emergency type, they are drawn into a losing and more dangerous battle. The art of fire crew deployment is to spread crews out across a community for quick response to keep emergencies small with positive outcomes, without spreading the stations so far apart that they cannot amass together quickly enough to be effective in major emergencies.

The “SOC” Process

The Center for Public Safety Excellence (formerly the Commission on Fire Accreditation International) recommends a systems approach known as “Standards of Response Coverage” (SOC) to evaluate deployment as part of the self-assessment process of a fire agency. This approach uses risk and community expectations on outcomes to assist elected officials in making informed decisions on fire and EMS deployment levels. Citygate has adopted this methodology as a comprehensive tool to evaluate fire station location. De-

pending on the needs of the study, the depth of the components can vary.

While working with multiple components to conduct a deployment analysis is more work, it yields a better result than any singular component can. If we only look to travel time and not look at the frequency of multiple and overlapping calls, the analysis could miss over-worked companies. If we do not use risk assessment for deployment, and merely base deployment on travel time, a community could under-deploy to incidents.

The Standard of Response Cover process consists of eight parts:

1. Existing Deployment – each agency has something in place today.
2. Community Outcome Expectations – what does the community expect out of the response agency?
3. Community Risk Assessment – what assets are at risk in the community?
4. Critical Task Time Study – how long does it take firefighters to complete tasks to achieve the expected outcomes?
5. Distribution Study – the locating of first-due resources (typically engines).
6. Concentration Study – first alarm assignment or the effective response force.

7. Reliability and Historical Response Effectiveness Studies – using prior response statistics to determine what percent of compliance the existing system delivers.

8. Overall Evaluation – proposed standard of cover statements by risk type.

Citygate uses state-of-the-art geographic mapping software and response statistical analysis tools to measure and provide visualization, as needed, for each of the eight elements listed above. It is often said that one picture is worth 1,000 words and this is especially true when elected officials can see maps of fire unit travel distance coverage and locations of prior incidents and actual response times.

When presented with a properly built comprehensive study, the policy makers in a community are better equipped to make *rational* fire service deployment decisions and not be so easily pushed by special interests on a case-by-case basis.

Citygate has used this systems approach with many fire service clients in size from Minneapolis and Los Angeles County to the Town of Windsor and City of Palm Springs over the past seven years with outstanding success. Please contact us for additional information!

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Citygate Associates, LLC is a management consulting firm providing services to local and state governments across the Western United States. Headquartered in Folsom, CA, Citygate's Fire and Emergency Services practice specializes in:

- Operations Reviews
- Nationally Recognized Methodology for Deployment Analyses
- Fire Station Location Assessments
- Staffing Pattern Analyses
- Emergency Medical Services Analyses
- Alternative Service Delivery Models, Evaluations and Consolidations

Citygate's clients benefit due to their ability to provide more effective and cost-efficient services through improved management approaches and systems, clarified focus, and upgraded skills.

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