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## ENFORCING SOUND CONSTRUCTION

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*Opinions of Building Code Administrators, primarily in Southern and Southeastern States, Concerning the Adequacy of Resources for Administering and Enforcing Building Codes*

### STAFFING

Responding administrators most often reported they had just one full-time building inspector and one full-time plan reviewer on the staff. Nearly one-half (47%) of the administrators felt their department was not staffed adequately to permit completion of all necessary inspections and 46% indicated they were not staffed properly to handle all plan review responsibilities.

Almost three-fourths (72%) of the administrators who indicated they did not feel their

department was staffed adequately indicated a reason for this was that it was not a priority of the local government.

### SALARY STRUCTURE

Over one-half (56%) of the respondents thought their department's salary structure was insufficient to attract qualified building, plumbing and mechanical inspectors. About two-thirds (64%) felt their department's salary structure did not allow them to attract qualified applicants for plan reviewer positions.

### WORKLOAD

The largest proportion of respondents (43%) indicated that their experienced inspectors completed, on average, one to five inspections per day over the course of an entire year. When asked specifically about the peak construction season workload, the most frequent response was six to ten inspections per day.

### EXECUTIVE SUMMARY

This summary describes key findings from a February 1995 opinion survey of building department administrator members of Southern Building Code Congress International, Inc. (SBCCI), a model building code organization serving primarily southern and southeastern states. The survey, conducted by the Institute for Business and Home Safety with the assistance of SBCCI, recorded perceptions of building code professionals regarding the adequacy of resources at their disposal to administer and enforce building codes in their jurisdictions.

Nearly two-thirds (65%) of the administrators indicated they did not have to omit or abbreviate inspections because of staffing and/or workload problems. Of those responding that they sometimes have to omit or abbreviate inspections, the roof inspection was the one most likely affected (omitted by 38% of those respondents and abbreviated by 47%).

## **CONSISTENCY**

A substantial majority (84%) of the respondents stated they typically inspect the work of all contractors equally, regardless of contractor experience.

## **PUBLIC EDUCATION**

Seven out of every ten responding administrators (71%) indicated their department does not conduct public education efforts concerning building codes, safety and/or damage mitigation, while 29% said their department did conduct such efforts.

Of those reporting that their department conducted education efforts, 31% said there was no money budgeted for these efforts, while 35% cited a budget between \$100 and \$500.

## **DEPARTMENT BUDGET**

Fifty-three percent of the respondents indicated their overall budget was insufficient to enforce building codes and provide other necessary services. The largest proportion (35%) who reported their budget was not

adequate indicated an increase in the range of 11% to 25% would be needed to achieve adequacy.

Two-thirds of the administrators reported that all permit revenues were not retained in their department in order to help offset operating expenses, while 24% indicated their department did keep all permit revenues.

Twenty-nine percent of the responding administrators reported that all of their department's budget was funded by permit revenues.

## **POLITICAL ACTIVITY**

When asked what effect political activity had on their department's ability to perform its duties, more than one-half of the administrators felt political activity made it either somewhat difficult (43%) or very difficult (11%) to perform their duties.

## **MAJOR PROBLEMS**

Budget restraints/restrictions was most often cited by administrators (28%) as the major problem facing their department today.

Not having enough employees was most often mentioned by administrators (19%) when asked about the problems likely to be facing them in the next five to ten years.

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## INTRODUCTION

**B**uilding departments are units of state or local governments responsible for regulating the quality of the built environment — the houses, offices, schools and other structures people occupy. These departments administer and enforce building codes — the laws or regulations that provide standards for the design, construction and materials used in buildings.

The purpose of building codes is to promote public health and safety and protect property.

The Institute for Business and Home Safety believes that because building codes are a first line of defense against natural hazards — hurricanes, tornadoes, earthquakes, floods and similar catastrophic events — codes should incorporate the latest knowledge about building design and construction and should be effectively enforced.

The Institute conducted this survey to help determine whether building departments have adequate resources to administer and enforce building codes. Southern Building Code Congress International, Inc. (SBCCI), which operates primarily in southern and southeastern states, assisted by distributing the survey to its building department administrator members.

### METHOD

In late February 1995, a survey was mailed to all 2,200 SBCCI building department administrator members throughout the SBCCI service area. By early April 1995, responses had been received from 806 administrators, for a response rate of 37%.

### RESPONDENTS

The jurisdictions of the survey respondents range from small towns to large metropolitan areas. About four of every five respondents are from an area with population of 50,000 or less. The most frequently reported population of the jurisdiction was 5,000 or less (27%), 19% are from an area of 5,001 to 10,000; and 24% from an area of 10,001 to 25,000.

About two out of every five respondents are from either Texas (21%) or Florida (21%), while 12% are from Georgia, 10% Tennessee and 8% Alabama.

Jurisdiction size and state were not provided for the entire population of SBCCI member building department administrators; therefore, any analysis to determine the representativeness of respondents based on these two items was precluded.

Statistical tests were performed to determine whether responses to any of the survey items were associated with either state or jurisdiction size. Mention is made in the report of any significant findings.

## RESULTS

### STAFFING

**A**dministrators were asked how many full-time building inspectors were on their staffs. The most frequent response was one full-time inspector (cited by 41%), while 18% had two full-time inspectors and 18% three to five full-time inspectors. More than one out of every ten respondents (11%) reported they had no full-time inspectors on staff.

About one-half (47%) of the responding administrators indicated they felt their department was not staffed at a level that permitted completion of all necessary inspections in order to comply with their jurisdiction's building codes; 53% stated that their department was staffed adequately to complete all necessary inspections.

Those reporting that their staff was not of sufficient size were then asked how many additional inspectors they would need to be adequately staffed. The response cited most frequently (53% of these administrators) was one additional inspector, while 31% said two additional inspectors were needed.

Respondents who indicated their staff was not of adequate size were also asked why the department was understaffed. The reason cited most frequently by these administrators

(72%) was that it was not a priority for their local government, 63% cited lack of funding and 17% mentioned there were not enough qualified inspectors.

Administrators from jurisdictions with larger populations were somewhat more likely than others to 1) indicate that their departments were not staffed at adequate levels, 2) indicate that they needed three or more additional inspectors, and 3) cite as reasons for their inadequate staffing the lack of funding and the low priority of the issue.

When asked how many plan reviewers they had on their staff, 49% of the respondents indicated just one, 15% percent had two, 11% indicated three to five reviewers, and 3% reported having six or more. Nearly one-fourth (22%) reported they had none.

Almost one-half (47%) of the responding administrators indicated that **none** of their plan reviewers exclusively reviewed plans, while 37% reported they had one exclusive plan reviewer on staff. Only one out of every ten of the responding administrators reported that **none** of their plan reviewers also conducted inspections. About two-thirds (63%) indicated one plan reviewer also conducted inspections, while 16% reported two reviewers conducted inspections.

Nearly one-half (46%) of the respondents indicated their department was **not** adequately staffed to handle all their plan review responsibilities, while 54% did think so. Of those who indicated their department was not adequately staffed, about nine of every ten (87%) said they needed just one more plan reviewer, while 9% felt that two more reviewers would satisfy their department's needs.

## SALARY STRUCTURE

Fifty-six percent of the responding administrators answered “**no**” when asked whether they thought their department's salary structure allowed them to attract qualified professionals to the building, plumbing and mechanical inspector positions. The remainder (44%) said the salary structure did allow them to do so.

When asked the same question pertaining to the plan reviewer position, 64% felt their department's salary structure did **not** allow them to attract qualified people to the plan reviewer position, while 36% indicated the opposite.

## WORKLOAD

Survey recipients were asked to report how many inspections, on average, were completed per day by one of their experienced inspectors over the course of an entire year. The most frequent answer (43%) was within the range of one to five inspections per day, while 27% reported six to ten inspections and 15% said eleven to fifteen inspections.

The administrators were asked a similar question with respect to the peak construction season. The most frequent response (26%) was six to ten inspections per day, while 23% indicated one to five inspections were completed and 21% reported eleven to fifteen inspections.

To gauge the expectations of administrators, they were asked how many inspections **realistically** should be completed by an experienced inspector, per day, without compromising the quality of the inspection. For the entire year, the most frequent response (39%) was six to ten inspections; 35% indicated one to five inspections and 16% said eleven to fifteen inspections.

When asked about the peak construction season, the answer most often (37%) was six to ten inspections, while 23% indicated a range of eleven to fifteen inspections and 22% said one to five inspections.

Administrators were asked whether there are times when their department must omit or abbreviate inspections from the full inspection routine because of staffing and/or workload problems. About one-third (35%) said there **were** times when they had to omit or abbreviate inspections, and 65% said they did **not** omit or abbreviate some inspections.

Respondents who indicated their department had, on occasion, omitted or abbreviated inspections were asked which inspections were typically affected. Inspections mentioned most often as being **omitted** included the roof inspection (38%), concrete inspection (20%) and mechanical inspection (17%). About one-fourth (26%) of these respondents indicated that they typically did not omit any inspection, and 11% said they typically omitted the final inspection.

Inspections mentioned most often as being abbreviated included the roof inspection (47%), mechanical inspection (39%), framing inspection (37%) and final inspection (31%).

## **CONSISTENCY**

The administrators were asked whether their department typically inspected the work of all contractors equally, or whether they inspected the work of experienced, quality contractors to a somewhat lesser degree. The great majority (84%) indicated they inspected everyone equally, and 16% reported that they inspected experienced, quality contractors to a lesser degree.

Those who said they typically inspected experienced contractors to a lesser degree were asked whether they sometimes omitted one or more inspections from the full routine for these contractors. More than half (56%) indicated they did not omit any inspections for experienced contractors, while 44% reported that they did.

## **COMPLIANCE WITH WIND-LOAD REQUIREMENTS**

The administrators were asked whether their jurisdiction was within a 90 mph or higher wind zone. Forty percent said they were within such a zone and 60% indicated they were not.

Those located in a 90 mph or higher wind zone were asked to indicate the approximate percentage of contractors in their jurisdiction who, in the administrators' opinion, understood the building code wind-load require-

ments and made a conscientious effort to comply with those requirements.

About one-fourth of the responding administrators felt more than 75% of the contractors in their jurisdiction understood the requirements, while about one-third thought 46% to 75% of the contractors understood the requirements. Another one-third felt that only one in four or fewer of the contractors in their locale understood the code wind-load requirements.

One-half of the responding administrators indicated that, in their opinion, more than 75% of the building contractors in their jurisdiction made a conscientious effort to comply with the code wind-load requirements. Another 30% of the administrators indicated that 46% to 75% of their contractors made such an effort.

## **PUBLIC EDUCATION**

When asked whether their department conducted any public education efforts concerning building codes, safety, and/or damage mitigation, 71% of the administrators reported that they did not conduct such efforts, while 29% said their department did.

Respondents who indicated that their department did conduct public education efforts were asked how much money was budgeted for these efforts. The most frequent (35%) amount reported was between \$100 and \$500. However, nearly as many respondents (31%) reported that there was no money budgeted for these education efforts. One out of every five said they budgeted between \$501 and \$2,000 for public education, and 13% reported they budgeted more than \$2,000.

One-half of these respondents felt the amount budgeted for public education was adequate, while one-half stated the amount was not sufficient.

## **DEPARTMENT BUDGET**

Administrators were asked whether they felt their department's budget was sufficient to

enforce building codes adequately and to provide other important services to residents. Fifty-three percent of the respondents indicated their budget was not sufficient to accomplish these tasks, while 47% felt it was sufficient. Administrators who felt their budget was **not** sufficient were asked how much their budget would need to be increased in order for it to be sufficient. The most frequent response (35%) was an 11% to 25% increase, while nearly as many (32%) indicated a 26% to 50% increase was required. Ten percent cited a 51% to 75% increase in their current budget would be needed.

The building department administrators were asked whether all permit revenues were retained in their department to help offset operating expenses. Two-thirds (67%) indicated that all permit revenues were **not** retained in their department, 24% said they were and 9% were unsure.

The next question concerned the percentage of a building department's budget funded by permit revenues. Twenty-nine percent of the respondents indicated that 100% of their budget was funded by permit revenues, while 20% said that none of their budget came from permit revenues. Eighteen percent of the administrators reported that between 1% and 25% of their budget came from permit revenues, 13% reported that 26% to 50% came from permit revenues and 11% reported 51% to 75% came from such revenues.

Administrators were asked the extent to which their department's budget included funds for continuing education opportunities for the staff. Three out of five (60%) of the respondents reported there were funds available for **limited** educational expenses, while 33% said funds were available for **all appropriate** educa-

tional expenses. Only 7% indicated there were **no** funds available for staff continuing education expenses.

## POLITICAL ACTIVITY

Survey recipients were asked the degree to which political activity within their jurisdiction made it difficult for their department to perform its duties.

Less than half (43%) of the administrators stated that political activity made it somewhat difficult to perform their duties and 11% reported that political activity made it very difficult. However, about one-half (46%) indicated political activity did not have any effect on how they performed their duties.

## MAJOR PROBLEMS

When asked about the major problems facing their department **today**, 28% of the administrators cited budget restraints/restrictions and 23% said staffing size, while 15% indicated there were no major problems. Other comments frequently made were: a need for more training (12%), keeping up with code changes (9%) and political favoritism/interference (8%). No other answer comprised more than 7% of the total.

Administrators were asked what they thought the major problems facing their department would be in the **next five to ten years**. The most frequent responses (29% each) were not having enough employees, and funding, while 14% mentioned keeping pace with their jurisdiction's growth. Other comments made frequently were: the education of inspectors (10%), political activity (8%), attracting qualified workers (7%), and enforcing codes and underpaid workers (5% each).

