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**SURETY'S COST TO COMPLETE DEFAULTED  
CONSTRUCTION PROJECTS- 32 CASES REVIEWED**

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WARNING: THE FOLLOWING PRESENTATION CONTAINS ABUNDANT AND EXPLICIT NUMBERS. VIEWER DISCRETION IS ADVISED AS IT MAY CAUSE DROWSINESS. DO NOT READ WHILE OPERATING HEAVY MACHINERY.

Although there are many war stories, there are few, if any, serious statistical studies of surety completion costs. This paper addresses the relationship between the unpaid balance of contract funds remaining at the time of default and the cost to complete the defaulted contract. Although the number of cases reviewed is relatively small, the cases were selected randomly and the data were studied carefully so as to yield accurate and reliable conclusions.

This ratio of cost to complete to contract balances will be of interest to many. It will be useful to surety claims managers in establishing budgets and reserves at a macro level and in setting performance goals for the surety claims department. In addition this information may be useful in litigation between the surety and its indemnitors to demonstrate that the completion costs incurred by the surety were reasonable.

In addition to studying the median ratio of the cost to complete to contract balances for all cases reviewed, this paper will also address how that ratio varies for different types of work, work trades, project sizes, percentages of completion, and methods of completing. While this sampling is not large enough to yield statistically reliable information at this level of detail, it does point to certain conclusions as well as further areas of study.

## **DATA COLLECTION**

The cases from which data were collected are all cases handled by Forcon International as surety consultants or surety claim managers. All of the available files in Forcon's Florida and Connecticut offices were considered and reviewed. All of the cases in which complete and reliable data for all of the necessary data elements were found and have been utilized for this report. Any case in which one or more data elements were missing or could not be verified was eliminated from the study. Only 32 cases were found that met these requirements. A summary of the cases utilized in this review follows as Exhibit 1.

This sampling is as close to a truly random sampling as can be practically achieved. Furthermore, there is no reason to believe that there is a relationship between our having complete and reliable information on the relevant data elements and any of the factors we are studying. The cases represented are from a diverse group of clients and bond principals. They represent contracts of all types and sizes. All of the defaults occurred during the last five years and within the Eastern

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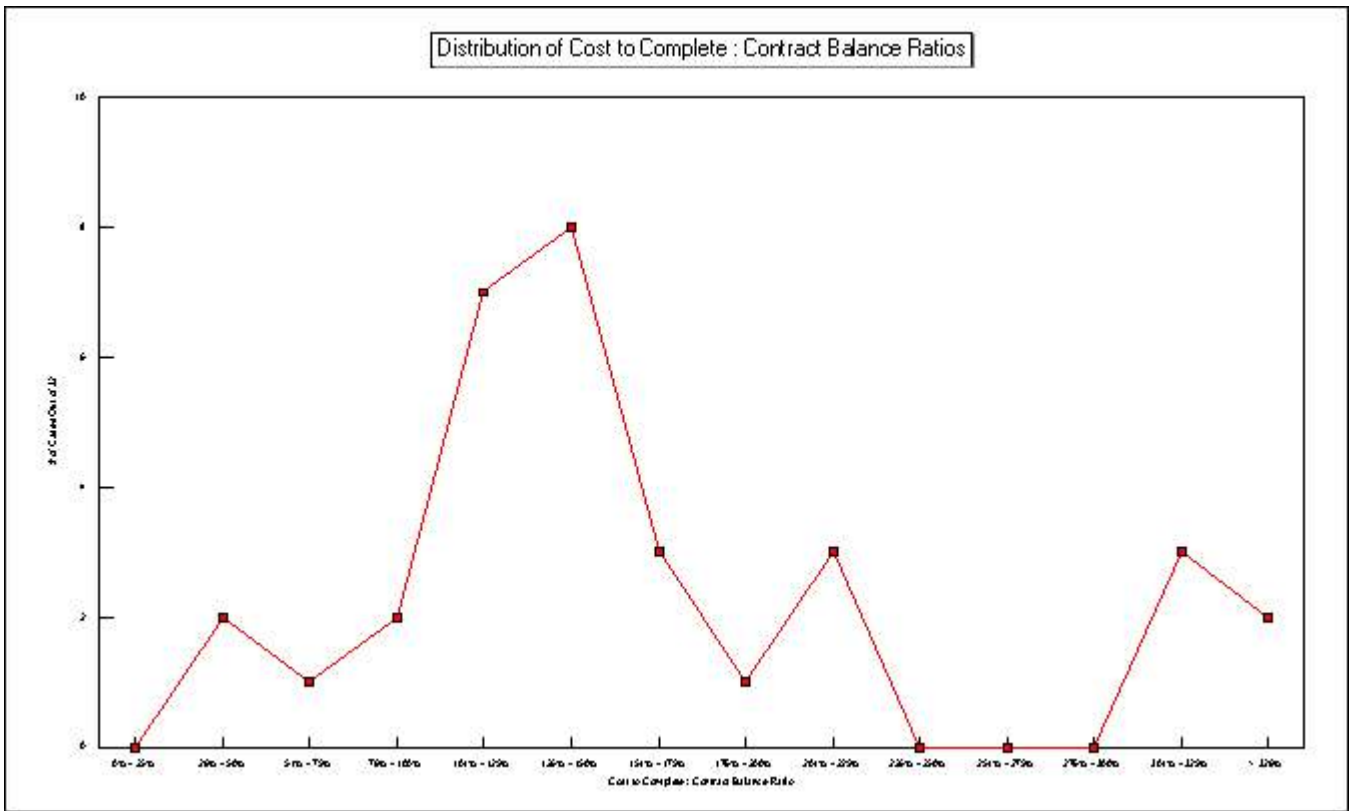
United States. Unfortunately, the size of the sampling is smaller than necessary for reaching reliable conclusions about some of the subsets of this data. Nonetheless, the 32 cases chosen represent a diverse and random sampling of surety bond defaults and contain complete and documented data.

For each of the cases selected, documentation was reviewed and recorded as to the trade of the contractor, type of work, total contract amount (adjusted for change orders through completion), unearned balance of contract funds, earned but unpaid contract funds, retainage, total cost to complete the contract work following the principal's default, and the means by which the work was completed (relet, finance, obligee completion, etc.) In addition, other factors were studied which appeared to affect the completion costs such as underbids, defective work, and overpayment by the Obligee.

### **RELATIONSHIP BETWEEN CONTRACT BALANCE AND COST TO COMPLETE**

The cases studied reflect that the cost to complete as a percentage of the total contract balance varies considerably, but the median ratio is 135%. These ratios range from 48% to 733%; however half of the cases reviewed reflect ratios between 109% and 155%. Most of the data form a bell curve with a median ratio of 129%, but several exceptional cases extend well beyond. These data tend to confirm the author's observations from handling over one thousand bond defaults.

The relationship between the cost to complete and the *total* contract balance was compared with the ratio of the cost to complete to the *unearned* contract balance. The total contract balance includes earned retainage and earned but unpaid contract funds whereas the unearned contract balance does not. The median ratio of cost to complete to unearned contract balance is 147% as compared with 135% for the total contract balance ratio. Those ratios differ significantly on cases involving projects with a higher percentage of completion, because earned retainage on those cases is higher. Although there are good reasons to study both ratios, the following discussion will relate to the cost to complete as a percentage of the unearned contract balance which, for brevity, may be called "the completion premium." This measure was chosen as more relevant because it factored out contract funds which are unrelated to the remaining scope of work.



**So, WHY DOES IT COST 40% MORE THAN THE CONTRACT BALANCE TO COMPLETE A DEFAULTED CONTRACT?**

Although not a part of this study it has been this author’s observations over the years that frequently the bonded principal swears that the cost to complete his work is equal to the contract balance. This data certainly disprove those promises but do not provide a complete explanation of why. From both the facts surrounding these 32 cases and this author’s experience in handling or supervising the completion of many bond defaults, one or more of the following factors seem to account for the 40% completion premium:

Underbid by Original Contractor: Many bond defaults arise on projects in which the bonded principal underbid the job; that deficiency in the contract balance is seldom made up before the contractor defaults. As a result there are insufficient funds remaining for the surety to complete the job.

Work Not Performed to Specifications: Either because of inexperience, lack of funds, or lack of concern the original contractor may not have performed its work properly. The surety will usually be called upon to correct the defective work; often the remedial work is extensive and costly. Even if the work is performed properly, the mere suspicion of defective work will increase the level of the Owner’s inspection and the price given by a completing contractor.

The troubled project: Some construction projects seem to complete without a single snare and others seem to stumble at every step. The factors that create a troubled project are many and varied, such as poorly developed plans, contractor underbid, construction management which lacks planning and effective communication, and Owner's expectations that cannot be achieved within their budget. Whatever the cause, the contractor's costs are higher than originally expected on troubled projects and bond defaults certainly occur on such projects more frequently. As a result, the surety's costs in completing this work is higher than the funds remaining.

Front End Loading: Most contractors seek to bill up front, or at the beginning of the project, their profit and overhead. As such, after the original contractor's default the surety may be compelled to fund the overhead and profit of the completing contractor.

Labor and Material Cost Escalations: Recently labor and material cost escalations have been significant. According to *Engineering News Record*, over the past year labor costs have increased about 5% and some material costs have increased as much as 20% in the same time. These cost increases ultimately impact the surety's completion costs especially on long term projects and those in which the principal failed to buy out the project early on.

Out of Sequence Work: In the last months leading up to the contractor's default, lack of financial resources or lack of concern may result in shortcuts being taken or work being sequenced to maximize cash flow rather than efficiency. Completing work out of sequence and completing the more costly work items left remaining, increases the costs to complete the work.

Remobilization: If a new contractor is brought in to complete the work of the defaulted contractor, the completing contractor will incur costs in "getting up to speed" with the work, learning about the job, developing efficient processes, etc. In addition they will have costs in mobilizing equipment, trailers, or staging, and time spent in preparing re-submittals.

## **FACTORS INFLUENCING THE EXCEPTIONALLY HIGH AND LOW COMPLETION PREMIUMS**

In four of the cases cited here the completion premium was equal to or less than 100%. Two of the lowest cases were surety financing cases in which it appeared that labor and overhead costs were borne by other projects. In the case in which the completion cost equaled the contract balance, the contract balance had been adjusted to include the insurance proceeds from fire damage. Since a large portion of the remaining scope of work at the time of the default consisted of the fire damage repair and the insurance claim settlement was likely influenced by the actual costs incurred to complete the work it is no surprise that the ultimate cost to complete the project equaled the contract balance. In the other case there was a large amount of work performed for which no payment had been made.

Eight of the cases included in this review (25%) showed completion premiums over 200%. In all of these there were significant documented overpayments by the obligees. Most of these cases also reflected documented, defective work and significant (over 20%) underbids.

Overall these extraordinary factors overwhelmed the influence of any other factors.

## **OTHER FACTORS INFLUENCING THE COMPLETION PREMIUM**

This review tracked the relationship between the completion premium and six other aspects of the bonded contract or completion method:

Type of Work: All of the cases included in this study were categorized into four broad classes of work: Commercial/governmental, highway and bridge, civil/heavy, and specialty. There were too few examples of civil and specialty work from which to draw any meaningful conclusions. Among the commercial/governmental work there was great diversity in the completion premiums without any apparent pattern ranging from 62% to 1105%. The median value of 181% may not be significant. The completion premiums for highway and bridge work are much more consistent ranging from 77% to 154% with 63% of those cases falling in the narrow range of 130% to 140%; the median value is 135%. This relationship may well be significant. It appears that the fact that most bridge and highway work is awarded on a unit price basis results in fewer cases of large underbids and overpayments and, therefore, more uniform completion premiums. Also, the well defined acceptance standards and closer inspection given to such work minimizes construction defects.

Trade: All of the cases included in this study were categorized into nine broad trade classes: Civil, electrical, insulation, interior finish, masonry, mechanical, painting, roof and general contracting. Because of the large number of trades by comparison with the number of cases studied, no significant relationships could be identified. As a general observation, however, there is greater diversity in the completion premiums for trade work versus general contracting. The range of completion premiums for general contracting is 77% to 1105% with 67% of the cases being between 116% and 154%. The median value is 134%. This result is likely explained by the fact that completion costs of general contractor's work is often "fixed" by subcontracts and subcontract costs are less likely to be affected by the general contractor's default.

Contract Amount: This data suggest no discernable relationship between the size of the contract and the completion premium.

Contract Balance: Generally, the larger the unearned contract balance the smaller the completion premium. There are several notable exceptions in the data reviewed. The effect of the size of the contract balance on the completion premium, however, is less significant than the effect of the percentage of completion discussed below.

Percentage of Completion: Generally, the higher the percentage of completion the higher the completion premium. Again, however, there are several exceptions in the data. This relationship can be explained by the fact that learning curve costs disproportionately affect those cases which are nearer to completion and that projects which go into default in the latter stages often involve a higher proportion of difficult, out of sequence, warranty, and defective work to complete.

Completion / Procurement Method: By far the most interesting relationship observed is that between the method of completion and the completion premium. The cases reviewed included projects completed by the Obligee, those in which the surety financed the principal, contracts completed by the surety on a time and materials basis, negotiated contract amount, and those

relet on a fixed price basis then completed by the surety as a takeover or by tendering the completing contractor to the obligee.

Only two cases reviewed involved the Surety financing its principal and as noted above it appears that some of the labor and overhead costs in completing those projects were borne by another project, as such the results were unusual and likely not representative. In seven cases the obligee completed; completion premiums ranged from 100% to 1094%. Considering the wide variance in these results it is difficult to reach reliable conclusions, but it does seem clear that, generally, completion by the bond obligee was significantly more expensive than completion by the surety. In seventeen cases the surety relet the contacts on a lump sum basis and the results varied between 116% and 1105% with a median completion premium of 138%. Finally, five of the projects were completed by the surety on a time and materials basis. While this small sampling cannot be expected to yield reliable results it is nonetheless noteworthy that the completion premiums on these cases ranged from 168% to 573% with a median value of 200%.

## **CONCLUSIONS**

Few if any of the observations and conclusions noted here will be surprising to the experienced surety claims person. Indeed this data seem to confirm the collective experience of the surety claims industry. The value of this study lies not in new and insightful conclusions, but in providing an objective basis and empirical evidence to support those conclusions. Although the scope of this study was limited, the results are nonetheless useful in establishing performance standards for surety claims departments where macro-level results can be objectively compared to these reference results or in litigation to establish proven, realistic completion cost parameters. However, to obtain statistically reliable evidence of completion costs for various types of work or types of procurement, a larger database will be necessary. Perhaps the surety claims industry will assist in providing additional data from their files to assist in that endeavor.

## **David L. Styers**

David L. Styers is Vice President of Forcon International-NE, LLC in Avon, Connecticut, a surety and construction consulting firm. He received a BA with honors in Philosophy and Political Science from the University of Virginia in 1979. After working as a property and casualty claims adjuster for the Farmers Insurance Group in Denver, Colorado, Mr. Styers was a surety claims supervisor with the Fireman's Fund Insurance Companies in Nashville and Atlanta and later Eastern Bond Claim Manager for Transamerica Insurance Group. Most recently, he was Vice President and the senior surety claims officer for Continental Insurance Company. He is a member of the Surety Claims Institute, the National Bond Claim Association, and the Friends of the Fidelity and Surety Law Committee of the American Bar Association TIPS and former Co-Chair of its Litigation Sub-committee. During his sixteen years in the surety industry Mr. Styers has been a frequent speaker and contributor to many presentations to the National Bond Claim Association, the Northeast Surety and Fidelity Claims Conference, General Building Contractors of New York State, International Risk Management Institute, The Construction Superconference, and the ABA National Institute. As co-founder and manager of Forcon International-NE, he manages a surety claim staff, construction and engineering consultants, forensic engineers and accountants, who provide services to the insurance and surety industry in the Northeast.