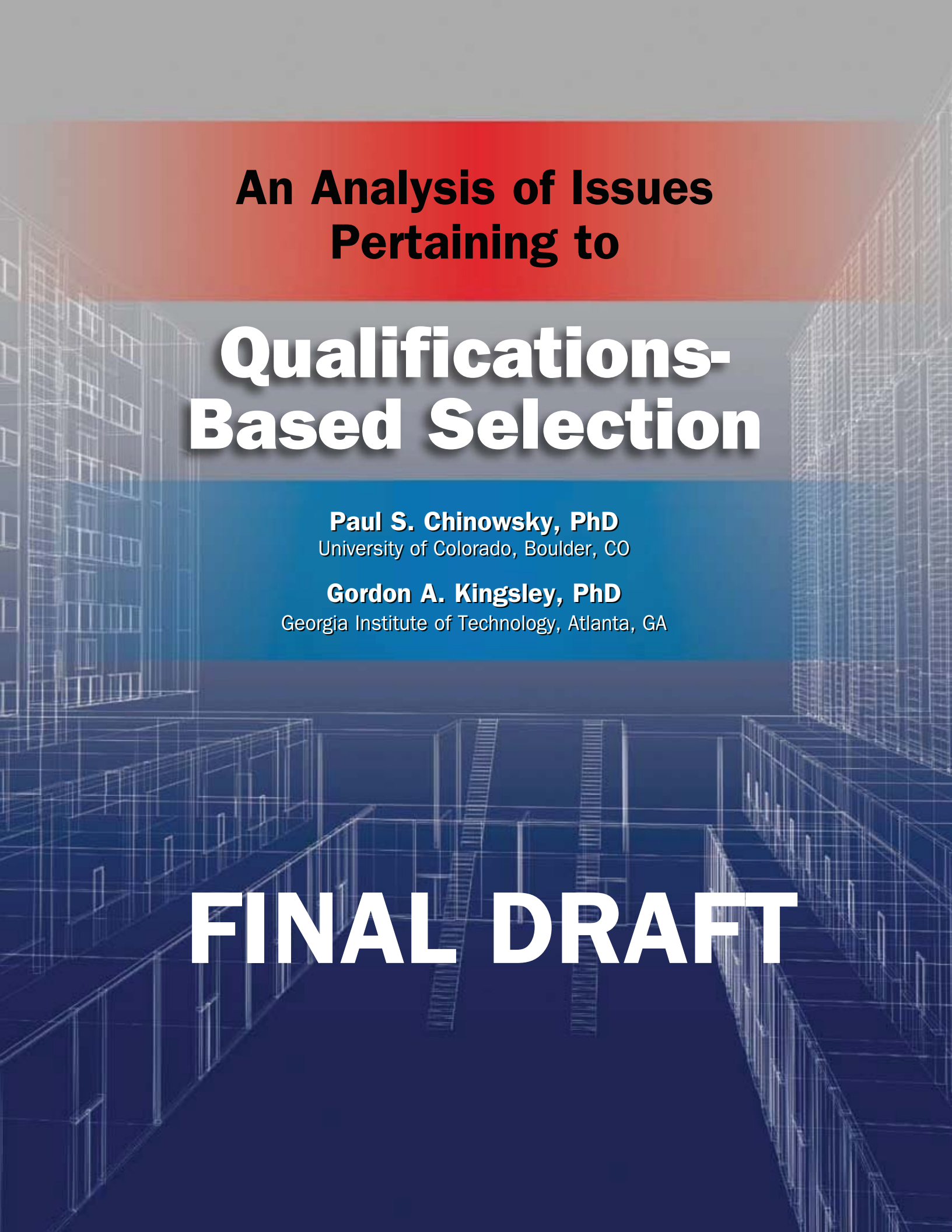

An Analysis of Issues Pertaining to

Qualifications-Based Selection

Paul S. Chinowsky, PhD
University of Colorado, Boulder, CO

Gordon A. Kingsley, PhD
Georgia Institute of Technology, Atlanta, GA

FINAL DRAFT

In Brief

Public agencies that use Qualifications-Based Selection (QBS) to procure architectural and engineering (A/E) services are better able to control construction costs and achieve a consistently high degree of project satisfaction than those using other procurement methods, according to a two-year study led by Paul S. Chinowsky, PhD of the University of Colorado and Gordon A. Kingsley, PhD of Georgia Tech. The authors, both experts and noted researchers in the engineering and construction field, contend that QBS should continue to be the procurement method of choice for public contracting officers seeking to acquire A/E services to meet increasingly challenging infrastructure needs.

Executive Summary

Background and Summary of Findings

The Brooks Act (Public Law 92-582), which has governed the Federal procurement of design services since 1972, sets forth a "Qualifications-Based Selection (QBS)" process requiring architectural and engineering firms to compete for government contracts on the basis of experience and technical expertise, rather than simply on cost. After firms are evaluated and short-listed based on their qualifications, the top ranked firm is selected for price negotiations, and a fair and reasonable price is reached based on a detailed scope of the project. If agreement on price cannot be reached with the most qualified firm, negotiations commence with the second most qualified firm. In the vast majority of cases the top ranked firm is selected at a price that fits the client's budget.

Most states have followed the federal example and adopted "mini-Brooks" laws and regulations. Yet, despite its widespread use, challenges to the process continue to emerge from advocates of cost-based procurement methodologies who place greater emphasis on the cost of design services rather than the technical qualifications of the designer.

The study conducted by Drs. Chinowsky and Kingsley provides a quantitative analysis of the use of QBS, testing its impact, relevance and implications in a number of ways. The researchers conducted an extensive survey of projects and analyzed the impact of QBS on project outcomes. Project data was gathered from a stratified sample, randomly drawn from geographically diverse projects. The study assessed cost, quality and other measurements.

Key Findings:

QBS Ensures Cost-Effectiveness

Hiring the most qualified professional design services provider at a reasonable price is the best way of ensuring that the final constructed project is completed on time and on budget. From a quantitative perspective, QBS-based projects exhibit better measures than the national average in terms of both lower construction costs and lower schedule growth, which are key indicators of design impact on the constructed facility. While the industry average on construction cost growth (defined by the value of the cost of change orders as a percentage of the final construction cost) is approximately 10 percent, QBS projects are 3 percent. On construction schedule growth, the national average of about 10 percent can be compared to QBS projects which have an average of 8.7 percent, with 60 percent of those projects experiencing schedule growth of less than 3 percent.

QBS Lowers Risk for Complex Projects

Owners expressed special interest in using QBS on projects with higher risk factors and/or higher design complexity. QBS procurement enabled the owner to work with the design team to refine scope and explore alternatives on projects that have difficult technical, site location or other engineering challenges.

QBS Results In Better Projects and Highly Satisfied Owners

93 percent of owners surveyed on QBS projects in the study rated the success of their final project as high or very high. There was also a strong correlation between the ratings of owners and those of the design teams. The study found other similar indicators of satisfaction and quality, including a high level of trust between owners and designers on QBS projects.

QBS Takes Account of Emerging Societal Issues

The team found that QBS procurements were more likely to address emerging societal needs such as sustainability than cost-based procurements. QBS also addressed the concerns of more stakeholders in the process than cost-based procurements.

QBS Encourages Innovation, Protects Intellectual Property

The study confirms widely-held views that QBS promotes a higher level of innovation. In addition, there was a high degree of satisfaction on the part of design firms that the intellectual property included in the innovations was properly protected.

QBS Supports Owner Capacity Building

QBS allowed owner organizations to gain specialized quality services from design firms as an extension of staff. Both owner and engineer-of-record gained knowledge and insight based on shared project experience.

The study results support the conclusion that QBS should continue to be considered the procurement method of choice for contracting entities seeking design professional services to accomplish public projects. Both the historical success of QBS and its continued positive performance should dissuade contracting entities from turning toward favoring cost-based procurement methods. The factors and analyses that prompted the passage of the Brooks Act have not changed. Rather, new challenges that owners must now address actually reinforce the need for QBS.