

# **Does QBS Save Money?**

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A colleague from the engineering profession recently asked me an interesting question, “Does QBS save money?” Does the qualifications based selection (QBS) process for selecting firms for architecture, engineering (A/E) and related services (including surveying and mapping) save or cost taxpayers money?

Those are a good, and frequently asked, questions. They are asked by members of Congress, state legislators and their staffs in today’s budget climate.

QBS was codified as Federal law in 1972 (“Brooks Act”, 40 U.S.C. 1101 et. seq. and implemented in part 36.6 of the Federal Acquisition Regulation (FAR), 48 CFR 36.6) to protect the interest of taxpayers. It is federal law because over the life of a project, the engineering and related design services account for less than one-half of one percent of total costs. Yet, these important services play a major role in determining the other 99.5 percent of the project's “life cycle costs”, such as construction, operation, and maintenance.

While many surveying services performed under the Brooks Act are not related to construction, such as ACSM/ALTA surveys, boundary surveys for resource management and a variety of other non-design or construction projects and applications, cost savings are nonetheless realized.

The process has been so successful at the federal level that it is recommended by the American Bar Association in its model procurement code for state and local government. Some 47 states have enacted their own competence and qualifications based selection laws for architecture, engineering, surveying and mapping services. Others use it as standard procedure. No state has a specific law requiring bidding of these services.

The rationale for Congress codifying a practice that had been successful for more than 100 years before Congress passed, and President Nixon signed the Brooks Act on a bipartisan basis in 1972 was quality, public safety, and cost-effectiveness.

The history of procurement based on qualifications has its roots in surveying. The basis for present statutory authority for procurement of personal and professional services, such as surveying, can be traced back to an 1861 Appropriations Act. 12 Stat. 214 (1861). This Act provided for the appropriation of funds for various purposes, including the compensation of civilian surveyors. Section 10 directed that all contract for supplies or services be made by advertising for proposals “except for personal services.” A year later, the Attorney General ruled that a contract for surveying was a contract for personal services within the meaning of the Act and, therefore, could be made without advertisement and competitive bidding. 10 Op. Atty. Gen. 261 (1862). In reaching his decision, the Attorney General observed:

“Although this policy (price competition) is certainly desirable in all cases, there are yet some to which it cannot well be applied. Such are contracts for services which require special skill and experience... In all contracts for services which presuppose trained skill and experience, the

public officer who employs the service must be allowed to exercise a judicious discrimination, and to select such as, in his judgment, possesses the required qualifications.”

”Of this class are contracts for surveying the public lands. The service to be performed requires not only fidelity and integrity, but a certain kind of skill and knowledge, and the officer whose duty it is to let the contract, is bound to know that the person he employs possesses these qualifications.”

“It is not half so important to have the work done cheaply as to have it done well, and the price to be paid for it, whilst it should be but fair and reasonable, out to be far from controlling consideration.

QBS was recognized as a competitive process in the landmark Competition in Contracting Act (P.L. 98-369) which Congress enacted in 1984 in response to the coffee pot and toilet seat scandal in the Pentagon. During an earlier Senate debate on the federal A/E selection law, Senator Gurney of Florida said, “any Federal procurement officer...will tell you that competition based on professional-technical qualifications is every bit as hot and demanding as competition based on price, perhaps more so.”

When enacting the QBS law, Congress was affirming the views of John Ruskin, a 19th century English commentator who wrote in *The Common Law of Business Balance* –

“There is hardly anything in the world that someone cannot make a little worse and sell a little cheaper, and the people who consider price alone are that person’s lawful prey. It’s unwise to pay too much, but it’s worse to pay too little. When you pay too much, you lose a little money — that is all. When you pay too little, you sometimes lose everything, because the thing you bought was incapable of doing the thing it was bought to do. The common law of business balance prohibits paying a little and getting a lot — it can’t be done. If you deal with the lowest bidder, it is well to add something for the risk you run, and if you do that you will have enough to pay for something better.”

Government contracting officers, who are accustomed to buying specific products, rather than professional services, gravitate to low bids. As Senator Henry “Scoop” Jackson of Washington State said on the floor of the U.S. Senate during debate on the federal QBS law, a “contracting officer faced with widely ranging price proposals or bids would be under pressure to accept the low price.”

Former Senate Public Works Committee Chairman Senator Jennings Randolph of West Virginia said it best on the floor of the Senate when the federal A/E selection law was passed. He said: “Ask 10 firms to bid...and many agencies will take the easy way out and select the low bidder. Under such circumstances, we may end up with a technically capable architect or engineer, but one who, for lack of experience or because of a desire to stay within his bid reduces the time spent on field surveys or in the preparation of detailed drawings, or in providing inspection

services. As a result, the government may have saved itself a half of one percent on the design fee while adding 5 to 10 percent to the cost of construction, operation or maintenance.”

Among the studies which have concluded that QBS in fact has saved tax dollars include *An Analysis of Issues Pertaining to Qualifications Based Selection* by Paul S. Chinowsky, PhD (University of Colorado) and Gordon A. Kinsley, PhD (Georgia Tech). It found that government agencies that use qualifications-based selection are better able to control construction costs and achieve a consistently high degree of project satisfaction than those using price based procurement methods.

The study drew from a database of approximately 200 public and private construction projects in 23 US states, included transportation, water, commercial, and industrial projects, ranging in size from relatively small projects to those costing hundreds of millions dollars. Its authors compared various procurement methods, including QBS, Best Value, and Low-Bid, with such factors as total project cost, projected life-cycle cost, construction schedule, and project quality outcome. Results showed that using QBS to procure the design component of a construction project “consistently meant lower overall construction costs, reduced change orders, better project results and more highly satisfied owners than in other procurement methods.”

The authors, both experts and noted researchers in the engineering and construction field, concluded 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.

A specific study comparing costs between agencies that use QBS and those that select on price also found that the QBS process saves money. *Selecting Architects and Engineers for Public Building Projects: An Analysis and Comparison of the Maryland and Florida Systems* compared projects in Florida, which used QBS, with those in Maryland, which for a period of time employed price competition. The comparative study found Maryland’s A/E selection process was significantly more time consuming and expensive than Florida’s. In Maryland, the necessity of preparing detailed programs on which A/Es can base price proposals results in added expense to the state in the form of administrative staff, time delays and consultant costs, and overall budget. The increased administrative costs in Maryland resulted from the necessity of preparing detailed programs on which A/Es can submit price proposals. These additional system costs were not evident in Florida. While A/E fees were lower in Maryland than in Florida, the added costs of the Maryland process far outweighed the savings in A/E fees that resulted from a process in which the state developed detailed programs and A/E selections were made with price as an initial factor.

At the time Maryland’s law requiring selection based on price went into effect, there was an 11.6 percent increase in personnel and a 17.9 percent increase in the budget (in constant dollars) for construction projects.

Maryland’s A/E selection process took considerably longer to complete than Florida’s. The total delay relating to the A/E portion of the capital construction process in Maryland was almost 10 months. The delays occurred while detailed program descriptions were being prepared, during the actual selection process and during the design and approval phase. The Maryland Department of General Services completed the A/E portion of the capital construction process, from the point

that funds are approved to the beginning of the actual construction cycle, in 31 months. The same steps are completed, on average, in 21 months in Florida agencies.

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As a result, the Maryland legislature repealed its bidding law and enacted a state "mini-Brooks Act" or QBS statute.

The United States is fortunate that major building failures are rare. After incidents such as the collapse of the Hyatt Regency in Kansas City (MO) and the implosion of the roof of the Hartford (CT) Civic Center, Congress investigated these incidents and issued a report on "Structural Failures in Public Facilities" in 1984. It found, "procurement practices that lead to or promote the selection of architects and engineers on a low bid basis should be changed to require prequalification of bidders with greater consideration given to prior related experience and past performance." The chairman of the subcommittee conducting the study and publishing the report was then Rep. Al Gore, Jr. (D-TN).

No study making an "apples to apples" comparison of bidding versus qualifications selection has ever been conducted on surveying, mapping or geospatial services. However, numerous agencies such as the U.S. Army Corps of Engineers, U.S. Geological Survey, and National Oceanic and Atmospheric Administration report high satisfaction with using the process for such services.

NSPS, and its predecessor, ACSM, have a longstanding policy in support of QBS. When asked in the recent NSPS legislative questionnaire, "Do you believe qualifications based selection (QBS) is the preferred method for government procurement of surveying and mapping activities?", an overwhelming 86.4 percent of respondents answered in the affirmative.

At a ceremony recognizing design excellence in federal buildings in the 1980s, President Ronald Reagan said, "Good design doesn't cost money. Good design saves money, and you know how that warms my heart." The famous showman, P.T. Barnum is well known for saying, "There's a sucker born every minute". What is less known is that Barnum also observed, "The smartest way of deriving the greatest profit in the long run is to give people as much as possible for their money." QBS enables architects, engineers, surveyors and mapping professionals the ability to do that for their government clients and the taxpayers who are footing the bill.