ACEC Position on the SBA Proposed Small Business Size Standard

The following comments are submitted on behalf of the American Council of Engineering Companies (ACEC), the association of the nation's engineering industry. Representing nearly 5,500 engineering firms of all sizes, the Council is pleased to provide guidance on the proposed size standard for Engineering Services (NAICS Code 541330) as published in the *Federal Register* Volume 76, Number 51 (Wednesday, March 16, 2011).

Summary

ACEC appreciates the efforts by the Small Business Administration (SBA) to address the need to update the existing small business size standard. The current standard of $4.5 million in gross receipts per year has been in place since 2005, and there appears to be general agreement among the Council's members that the size standard should be allowed to grow in a manner that keeps true pace with inflation over time and accommodate the people and tools needed to provide service to federal clients.

At the same time, the Council is concerned that SBA may be reaching too far in its recommendation to increase the standard to $19 million in gross receipts per year, noting issues with the data on which the proposal was based and impact to the industry. While opinions among ACEC's diverse membership have varied to some degree on the proper level, the Council calculates that a size standard of $9 million in total revenues is a better reflection of inflation and industry data relative to the staffing needs of small firms and the revenue they generate. If SBA holds to the published 8 predetermined size standard levels, this would result in the new size standard of $10 million.

In addition to recommending an increase to $10 million, the Council is also advocating a number of specific policy changes aimed at both improving the tracking and participation of small firms on federal contracts, as well as accommodating teaming arrangements among small, medium and large firms that are essential to responding to agency needs. These recommendations include:

1) Requiring federal agencies to design small business contracts and scopes of work to better reflect the capabilities of small firms, and halt the current practice of large, complex, and geographically expansive solicitations that require large firm involvement (or support, if set aside) to meet breadth, management, insurance, and financial requirements.
2) Measuring all federal small business participation based on role, independent of contract tier.
3) Establishing subcontract goals based on contract role versus percent of work subcontracted (eliminating the current mid-size penalty, allowing teaming with all size firms, and providing a base of true work for small firms).

The remainder of this paper addresses the rational for our positions and comments in more detail. It is organized as follows:

- Facts Impacting SBA Calculations
- Further Background on the U.S. Engineering Industry Relative to Size Standards
- Alternative Considerations of Small Business Size
- Recommended Reforms to the Federal Small Business Program
- Conclusions

Facts Impacting SBA Calculations

SBA's analysis was based on 541330 NAICS Code data, as derived from the 2007 Census, which inflates the agency's findings and raises other issues:

1. Firms place themselves within a NAICS Code. Per *e-pipeline* research, the 2007 Census includes firms like Boeing, Lockheed Martin, Northrop Grumman, Booze/Allen/Hamilton, and Raytheon in the top 10 of NAICS 541330, by percent of total market. These firms can hardly be considered engineering firms dealing with real property and infrastructure and are in fact an official "exception" to the size standard. They are weapons, equipment, and systems developers and integrators or management consulting firms that use engineers. Their revenues distort the picture of the NAICS Code. The SBA admits that "the data from the Economic Census special tabulation are limited down to the 6-digit NAICS industry level" and "may not accurately reflect the characteristics of businesses providing specialized services". For this reason they turned to other information sources to determine "whether the Agency should propose revising the three exceptions under NAICS 541330". No mention is made of how the "exceptions" impact the general engineering services calculations. The further inclusion of firms that primarily provide engineering services to the petroleum, petrochemical, other industrial and manufacturing plants and processing industries confuses results.
2. According to the 2007 Census, 771 firms had revenues over $25 million (the closest tabulated size to the proposed new SBA rule). Per the *Engineering News Record*'s listing of Top 500 Design Firms (our industry's statistical source), only 383 firms had revenues that exceeded this threshold. The fact that the number of large firms included in the Census base of NAICS 541330 firms is well over 200% more than those actually performing infrastructure-based engineering services further raises questions whether the database is an accurate reflection of the industry.
3. With the economic downturn, many traditional engineering firms have turned to non-federal international work and/or non-engineering services to produce revenues. These numbers are included in the Census data. Since the Small Business size standards are established for domestic programs intended to strengthen and increase the use of small firms through enhanced competitive positions and loans, the inclusion of foreign and non-engineering work skews the results.

4. The industry often forms teams to perform work. The U.S. government does not aggregate small firm participation data in a way that identifies the actual work performed by small engineering firms, so the actual success of small business programs is unknown. At present, all work performed on a contract held by a large firm as prime contractor is not considered in small firm participation amounts, regardless of how much work small firms do on the contract. The same is true for contracts held by small firms that often include significant large firm support, but have the entire contract amount counted as small firm participation. Further, much work is being done using design-build contracts, where the construction contractor is the prime contract holder and all engineering services are support contracts, so no engineering work is credited to any large or small engineering firms participating. There is no way of knowing how successful the program is and how effective the current size standards are.
5. The industry is not homogeneous. It is composed of full service (multidiscipline) firms, specialty or single discipline firms, and variations in between. Through teaming, many firms thrive as support contractors and only pursue prime contract work when the scope of services (including geographic limits) is limited to that which they are potentially most qualified to perform. Some firms are geographically limited or provide services to a few clients, while others pursue work anywhere.

The factor of Average Firm Size (based on receipts) is skewed due to inclusion of non-engineering services and international revenues into the calculations. Start up costs are relatively low for already licensed individuals, but as a factor, firms with extensive automation and training programs, with an ability to spread overhead costs over a large base of work, have a significant advantage. Industry competition and federal contracting are basically unknown due to the lack of a complete federal picture of small business participation.

Background on the U.S. Engineering Industry Relative to Size Standards

With the basis for the SBA proposed change in question, potential impacts of the significant change need to be addressed. To do this requires understanding of how the industry operates, not just the processing of numbers. Engineering firms provide professional (state licensed) services based on hours of technical personnel involved. The engineering industry is composed of many small firms with individual technical disciplines, specialty services, and specific geographical expertise, complemented by a cadre of very large firms offering full discipline services throughout the nation and the world and a number of mid-size firms with full-service, sector specialization, or regional emphasis. This composition is driven by individual state licensing requirements, state requirements for firm ownership by licensed individuals, and ethical and liability issues for individuals and firms operating outside their area of competence. With this in mind, the size change needs to consider the resulting impacts on how the engineering industry does business and how sensitive to size firms are. This includes:

1. **Staffing** – Most firms are focused on technical performance by the principals, with support staff developed to enhance that performance. Included are additional engineers and technical staff, including support for automation of calculations and production of drawings, specifications, and other documents. To these personnel are added administrative, management, and marketing/sales personnel necessary to operate a business. Often the principals perform many of these functions to maintain control and reduce overhead costs. As size, complexity, and numbers of jobs increase, the need for the latter cadre of support personnel grows.
2. **Marketing and Sales** – Since engineering services are awarded based on capabilities and trust, the qualifications and reputation of a firm are key. Many smaller firms provide services to a small number of clients that they know and for whom they perform well. Broadening their client base requires unique staff or more load (and unbillable time) on the firm principals. The costs involved do not contribute to ongoing work for clients and become overhead costs. Often work for new clients involve new or additional capabilities requirements that necessitate teaming with other firms or hiring additional staff. All this requires advance knowledge and strategic and tactical planning.
3. **Administration and Management** – As firms grow, payroll, benefits, client reporting, coordination and integration of resources and workloads, insurance, and similar non-technical activities and requirements increase. Staff responsibilities must be identified and strengthened to assure success.
4. **Technology and Automation** – Engineering is a business based on competence and innovation. To remain current, relevant, and innovative requires continuous change in tools used and education/training of those involved. As the number of ongoing projects and client requirements grow, firm principals must provide for updating their staff and tools to keep pace.
5. **Competition** – Well run clients remain open to improving the services they receive. They are on the lookout for what others are doing to improve their positions and profits or performance. Engineering firms must continue to strive to keep clients, while other firms are pursuing them.
6. **Mergers and Acquisitions** – Part of adjusting to market demands and economic conditions is the continuous buying, selling, and merging of engineering firms to gain or expand capabilities and qualifications, gain reputation, add geographic experience or presence, increase efficiency, gain backlog, spread overhead costs, cash out of principals before retiring, and similar goals. These activities are ongoing and can be greatly impacted by small business size standard considerations. This is especially true when federal work loads are involved and for most states where federal guidelines are followed.
7. **Costs** – Staff and resources that are not directly billable to contracted work add to overhead costs. In addition, cash flow, taxes, and benefit costs are all impacted. Add to this the business and liability insurance increased costs and firms are faced with significant decisions to grow.

8. **Special Categories** – Some clients have social considerations which create competitive advantages for some firms. In the case of the federal government, these include small businesses of many categories (e.g. disadvantage business enterprises, hub zone firms, etc.). As these assisted firms grow they usually reach a size where the advantages are no longer needed and are removed. This is usually at a point where they are able to compete in their industry without needing special advantages.

As can be seen, the size of a firm directly impacts its ability to perform and compete for work. Engineering firms with 10 or fewer people (48% of ACEC member firms) clearly cannot compete with firms that have dedicated non-professional support staffs, regardless of their capability to perform needed work. The overhead costs of producing competitive proposals, in addition to finding opportunities and preparing for them, preclude the ability to reasonably compete. Fortunately, as noted previously, much of the work of the industry is performed as team support to other firms.

Expanding this consideration to firms of up to 30 people (about the size of firms within the current size standard and 70% of ACEC's membership) does not damage competition, since the major portion of staff for firms that size are still performing technical work. Increasing the standard by 422% includes firms with dedicated non-professional staffs that can overwhelm their small competitors. Providing competitive advantages to firms of that size potentially damages the truly small firms. It should be noted that 24 of our industry's top 500 firms would become small businesses under the proposed size standard.

In 1972, the Brooks Act (Public Law 92-582) became law. It requires that the federal government procure architect and engineering (A/E) services through a qualifications based selection (QBS) process. The basic reason for this law is that the cost of A/E services are very small relative to the impact such services have on the overall performance and construction and life-cycle costs of the projects with which they are involved. For those reasons the public are better served when the most qualified offeror is selected to provide those services and the scope and fair and reasonable cost of services are negotiated with that most qualified offeror. The elimination of changes during the design and construction contracts through a negotiated scope prior to contract award alone is of significant value. Under true QBS, with effective scopes of work, small firms can be the most qualified.

This selection process requires open competition based on qualifications and can be perceived as more difficult to acquisition and project staffs that do not fully accept the benefits of QBS to the project. Often short cuts are sought that include allowing anticipated cost of services to enter to selection process or finding ways to reduce the number of competing offerors. The latter includes small business set aside contracts. Such contracts for engineering services have been extensively used to increase small business participation when procurements in other NAICS codes require large firms in high dollar amounts (e.g. weapons, spacecraft, and other systems contracts). There is an inherent conflict between QBS and set-aside contracting, since

potentially most qualified offerors are excluded from competing. This is further impacted by the fact that in small business set aside contracts, only 2 "qualified" firms need to be identified to proceed with competition. The negative impacts of this problem are somewhat mitigated when the size and scopes of work are carefully managed to avoid projects for which the risks of performance by lesser qualified firms are weighed and the public is protected. Such is not happening today.

By making 90% of the engineering services industry small, as the proposed size standard does, the ability to use set aside contracts for almost all such work is real and awards can be greatly expedited through the "rule of 2". The benefit of finding and selecting the most qualified firm through fair and open competition is lost. The public and agency may later suffer due to reduced performance, safety, and higher ownership costs.

Alternative Considerations of Small Business Size

The increased capability of very small firms to perform larger jobs due to technology and software enhancements coupled with the federal governments packaging contracts into larger scopes of work (causing smaller firms to need more support in performing them) have resulted in revenues to smaller firms growing without the firms truly growing. This along with inflation necessitates an increase in the size standard.

In 1998, the SBA proposed a $7.5 million size standard. The final size standard was reduced to $4 million, primarily because firms at the prior $2.5 million standard could not be expected to compete with firms at the larger size standard. Using an inflation rate of 2.5% inflation over the last 12 years results in a value of $10 million (which is one of SBA suggested standard rates). The same "future value" calculation for the $4 million standard yields $5.5 million today. The current "chain" method of accommodating inflation has resulted in only a $0.5 million increase in the size standard since 1999. Clearly this method does not reflect true buying power changes.

Using ACEC as a cross section of the industry, we have a natural break in member firm size at about 50 employees. Using the *Professional Services Management Journal* (PSMJ) 2010 Net Revenue per Total Staff median for the A/E industry ($121,214), and adding 2.5 %, results in $124.245. Allowing for a 35% pass through for support consultants, equipment, and other costs results in revenue of about $8.5 million. Considering many of our member firms are from high cost areas, a 10% boost brings the level to about $9.2 million.

Recommended Reforms to the Federal Small Business Program

In addition to our industry's recommendation on an increased size standard, ACEC is urging both SBA and Congress to link larger reforms to the A/E contracting and data gathering processes. Considering the need for understanding the true impacts on small business involvement and greater information on actual involvement, the following actions are recommended:

1. The differences in the way firms develop, how they team to propose on work, the process used for selecting offerors, and the methods used to perform engineering services when compared to other work, requires a knowledgeable procurement workforce. In order to benefit the small firms involved and avoid creating situations where the small firms must turn to large firms to perform contracts, the scopes of work must be appropriately developed to allow and facilitate the actual work being reasonably done by existing staffs, expanded reasonably and appropriately. The current practice of combining multiple disciplines, across large geographic areas (sometimes the entire country and possessions), on complex, schedule driven projects is an unreasonable way to expect small business participation or success (when set aside). Contracts as large as $100 million are being set aside for small businesses, without regard to how a small business can technically or financially manage the work. Since engineering firms are run by professionals in their disciplines, many small firms have special knowledge and/or experience that would make them the most qualified for properly packaged scopes of work. Carefully considering the capabilities and experience of small firms could significantly reduce the need for set aside contracts and thereby retain the full benefits of QBS purchasing for the public.

2. To fully understand the participation of small businesses in federal government contracts, the data on all responsible work performed by such firms is needed. As explained, teams respond to solicitations with proposals intended to show why their team is the most qualified offeror to perform the needed work. Those proposals define the responsible roles each team member will perform to accomplish the scope of work. Based on the capabilities and experience of the team members in their identified roles, the selection process arrives at the most qualified offeror. The entire team is selected and they must stay together through contract award, in the roles identified. Substitution of a team member after selection voids the selection and competition. Since licensed individuals are involved, their roles (regardless of contract tier) carry with them legal and ethical responsibilities that extend well beyond the contract term (for professionally signed and sealed documents).

   The actual work performed by all size firms on a contract is reported and needs to be further aggregated so that the information is known and can be analyzed to show actual participation under NAICS 541330 for each agency. At present, the information is only held at the individual contract level. The eSRS system is structured to handle such information for each agency and should be utilized to do so.

3. In setting goals for the use of small businesses (by category) by large prime contractors, the goals are usually established based on the percent of work subcontracted. This does not support the way the selection process proceeded, during which the roles of each responsible support contractor was identified and the team was selected as most qualified based on those roles. It encourages the prime contractor to absorb the work internally, as soon as goals are achieved for an initial amount of work. While there are restrictions on bringing non-

proposed firms onto a team after selection, there is no such restriction on the prime contractor actually performing the work others were evaluated to do in the selection process.

A fairer method of establishing such goals is to base them on the intended roles and setting the goals as the percent of the funded prime contract the value each role is expected to involve. This establishes each team member for the life of the contract and allows small firms to be able to tactically plan hiring and training for the future based on a reasonable projection of work load.

If the actual work deviates from the plans, it will be easy to explain why goals were not met or were exceeded. The obligation remains on the prime contractor to use his team members in the roles identified in the proposal. Management for all parties becomes straight forward.

This method of establishing contract small business goals eliminates the existing so called "mid-size firm penalty". Under the current system for establishing goals, each time a mid-size firm is proposed, the prime contractor must add work for small firms to keep the percent of work subcontracted at the goal. The result is large firms eliminating mid-size firms from their teams, to avoid having to propose and explain how their goals will be achieved. This is especially harsh when a small firm grows beyond the small size standard after a good history with a large prime firm and is told they can be no longer used.

Under the proposed system, mid-size firms can team with each other and strong small businesses in support roles, with one as the prime without having to create new legal entities (Joint Ventures) just to avoid issues on small business use. Teams fully based on strengthening qualifications can form, as long as small firms are involved, without having to continuously adjust teaming partners to avoid disrupting percent of work subcontracted small business goals. Decisions would be based on merit and contribution to the team, as opposed to mathematical calculations to attain goals based on anticipated and adjustable support contract amounts as opposed to roles.

4. A substantial increase in the size standard necessitates consideration of advantages being given to the new (formerly graduated) firms falling within the standard and the damage being done to firms currently within the standard. Unrestrained use would damage the ability of the current small firms to benefit from the program and compete for work. The "new" small businesses will have no requirement to subcontract with smaller and disadvantaged firms, impacting those firms ability to receive federal work. Consideration should be given to limiting how much the "new" small firms can participate in set aside, disadvantaged, and 8(a) programs and if currently small firms need special considerations, such as a very small firm category with tied advantages.

Conclusion

As we have shown, the basis for SBA's proposed increase to $19 million raises questions, and the Council believes that a significant increase over the current standard to $9 million ($10 million if raised to the closest SBA standard level), based on inflation and focused industry data is a better approach. This, coupled with the programmatic reforms discussed earlier, will enhance federal market opportunities for the nation's small engineering firms, and give federal managers more flexibility to access the unique capabilities that firms of all sizes bring to the table.

In addition, the impact of inflation on true buying power needs to be reflected in direct Consumer Price Index (CPI) changes being regularly applied to the size standard.