MOVING BEYOND DISPARITY STUDIES: A DECISION SUPPORT MODEL

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ABSTRACT

Disadvantaged Business Enterprises (DBE) have been given preferential treatment in government contracts for over thirty years while DBE's special treatment in the contracting process has been challenged for the past fifteen years. The challenge has been especially strong since the Croson and Adrand federal court case decisions in 1989 and 1995, respectively. In response to the court challenges, agencies have paid for Disparity Studies in order to justify their DBE participation goals. This paper identifies shortcomings of most disparity studies and recommends an alternate model that can be implemented by the agencies with little or no additional cost while obtaining more information and capabilities to effectively establish, monitor and manage their DBE programs.

INTRODUCTION

Purchasing programs designed to give a preferential advantage to minority-owned firms in competition for government contracts began during the early 1960s. Many of the first programs were race-neutral and designed to prohibit discrimination of any kind as well as eliminate government bureaucracy that create barriers for the development of businesses among economically disadvantaged populations. However, for the last decade the debate over DBE programs have escalated to contentious litigation over the role that government should play in promoting minority business development. "Some critics argue that (the programs) failed significantly . . . and that many minority businesses never advance to a level where they are able to thrive in the absence of such government programs." (Lee, 2003). In an attempt to support their DBE goals and programs, public entities have paid millions for research, called ***Disparity Studies***, to justify their DBE policy in light of recent litigation.

THE CREATION OF A NEW STANDARD

In June 1995, the Court dramatically changed the legal landscape regarding minority business preferences in the awarding of government contracts. Previously, minority business preference programs were not subject to a demanding standard of strict scrutiny and would be upheld if the government had a rational basis for the policy establishing the standard. **Adarand**

Constructors, Inc. v. Pena , 5151 U.S. 200 (1995) changed the strict scrutiny standard of review and required the "most compelling reasons" be established for setting a preference.

The Adarand Court added the strict scrutiny and federal requirements to an already well-known court decision: City of Richmond v. J.A. Croson Co., 488 U.S. 469 (1989). As a result of the Courts' 1989 and 1995 decisions, federal, state, and local governments began to hire research consultants to help the agency establish the compelling reason for their minority business preference goal and then to narrowly tailor that goal. The research results are reported in a document called a Disparity Study. During the 1990's, approximately five different firms have performed well over 170 Disparity Studies as commissioned by federal, state, and local governments. Many Disparity Studies are being challenged in court and the dispute continues regarding the estimates of the disparity between the number of available ready, willing and able minority owned businesses versus the number of minority-owned businesses utilized. Even though a Disparity Study considers many aspects of preferential contracting policies towards minority-owned businesses, the essence of a Disparity Study rests on the foundation of the **disparity index**, the ratio between the number of ready, willing and able firms to the number of minority-owned firms utilized. Nearly all disputes rest with the calculation of this index.

Agencies have expended large resources to determine an estimate of the disparity index that could be defended in court. Unfortunately, in its focus on determining an index, Disparity Studies miss opportunities to answer other closely related but nonetheless critical questions to business development and program implementation that have a significant impact on the development of the minority business community. In this paper, we present an alternative conceptual model that governmental agencies can use to gain additional insights into the nature of the DBE community as well as satisfy goal-setting requirements

An especially troubling negative side effect of government's DBE policy is its need to increase its intervention into the business activities and decisions of private firms. A recent NFIP report states, "Government's pervasive guidance of economic activity in the United States implies that government and business spend considerable time in one another's company. . . . the interface can be collaborative or combative." (Dennis, 2003) Unfortunately, the current DBE policy has produced a more combative rather than collaborative government -contracting environment. The authors believe that the research design proposed in this paper will help to reduce the combative tensions and move towards a collaborative business environment.

Disparity Study Problems and Limited Focus

Due to the numerous difficulties in determining the number of ready, willing, and able firms, Disparity Studies have been criticized as being "junk science" (Barrett, 1996). The problems are also compounded by several other factors:

(1) First and foremost is the availability of current population data. All Disparity Studies that were performed in mid to late 1990s used 1990 Census figures and some industrial data that dates back to the late 1980s. The old data permitted challenges to a policy that would last for a decade or more into the future (Celec, et. al., 2000).
(2) Limited use of the variables from data sources. Disparity Study researchers have used

only the generally accepted variables to calculate availability. It is not usually part of the project scope to explore other relationships that might have an impact on the number of ready, willing, and able minority-owned firms. Limiting the study of a single narrow industry sector such as public works projects and collecting data on only those variables that are necessary to calculate the disparity index can potentially limit the inferences that can be drawn from the sample. Conversely, public contract records contain rich details on a government's contracting process, competition, and participation (Fregetto, 1998) that should not be overlooked when determining ready, willing, and able.

(3) A significant number of studies estimated the number of ready, willing, and able minority owned firms using testimonies rather than quantitative analysis of the available data.

Moving Beyond the Disparity Index

The authors realize the importance of this analysis to agencies in light of the two aspects of the strict scrutiny test described in the ***Croson*** and ***Adarand*** decisions and subsequent decisions. First, government must establish its compelling interest in providing a remedy to discrimination, and second, the DBE program must be narrowly tailored to reduce the effects of the discrimination. Using the model below, researchers can develop a methodology that can assist public entities in developing a rational basis for not only establishing their DBE participation goals but also being able to evaluate performance and make valued adjustments as well as exploring what-if scenarios. The proposed model relies on the most recent demographic and lifestyle data, a survey of current businesses and population, a review of past studies, and advanced statistical and modeling techniques.

The proposed model can also address the following issues in addition to providing a more reliable measure of the disparity index:

- Is there a worst, better, and best methodology for analyzing large census data sets in order to extract reliable summaries to accurately profile people and firms (i.e., explore the relationships between and among data sets to determine the variability of count)?
- Identify the factors that may be able to predict the propensity to start a business. For example, does the propensity to start a business correlate with the rate of employment in the industry?
- Compare the propensities to start a business among different racial groups using the above factors and then use other variables and data sets to explain the difference.
- Use the best available census data on individuals, firms, and markets to obtain the best estimate of the number of ready, willing, and able firms had it not been for discrimination.

A Decision Support Model for Disparity Studies

The objective of this model is to provide public entities with the methodology that can support policy decisions regarding the agencies' obligations relative to the DBE program goals. The authors believe that there is an opportunity to go beyond simple analysis in conventional availability studies and address a broad range of other important concerns and output measures expected of an effective DBE program. Rather than agencies focusing resources on a single-issue study, i.e., the disparity index, the authors envision the implementation of a model that public entities can use as a tool for developing a strategy to initiate, manage, and sustain a DBE goal-orientated program.

The authors also believe that the model will not significantly affect project cost, while providing an effective management tool for both administrators of DBE programs as well as policy makers. The proposed research design has four phases of which are summarized in Figure A. A brief discussion of each phase is presented in the succeeding sections.

Figure A about here

Determine the Availability of Firms in the Existing Market. The objective is to create a profile of the existing market of DBE and non-DBE firms in the target industry, e.g., highway and airport construction. The firms that comprise the market include both DBE and non-DBE firms that may be part of an agency's vendor list *as well as those that are not on the list*. This phase will involve collecting information on firms participating in other public infrastructure projects as well as those that work for the private sector but are not currently certified with or registered to do business with public agencies. The possible data sources for this study include the Survey of Minority and Women Owned Business Enterprises, the Statistics of U.S. Businesses, and state and local public agency databases. Primary research (in the form of surveys and interviews) can also be used to provide supplemental material and validate the analysis.

Study the Market of Nascent Entrepreneurs. The objective is to examine the propensity and likelihood for the residents of a geographic area (e.g., state) to start businesses related to the target industry. Researchers can analyze the formation of likely DBE and non-DBE firms and provide an indication of the availability of firms in the future state of the market. By addressing the market of nascent entrepreneurs and their intentions to start a business, researchers can address the general concern of locking in past discriminatory practices if DBE goal setting is based on only the current pool of established businesses. For instance, researchers will be able to investigate the hypothesis that the propensity to start a business among minorities is correlated with the rate of employment in the industry. Statistical models can be used to identify the key factors that influence a person's intention to start-up a business and assess the success of new businesses across socio-economic segments. Census databases will be a key source of information in this phase. In addition, primary research in the form of surveys and interviews is possible to identify potentially significant variables that are not included in the Census or other

commercially available databases, such as personal characteristics of owners of firms and intentions to start a business.

Examine an Agency's Contracting History. The objective is to review the agency's contracting history and develop quantitative information indicative of the experiences of DBE and non-DBE firms. In this phase, the researchers can work with the agency to examine the participation of DBE and non-DBE firms in the contracting process, from bid solicitation to bid award. One can measure a set of variables such as number of firms solicited, the number of DBE and non-DBE firms responding and bidding, bid prices and winning margins, and pricing tactics. Using these variables, statistical techniques can be used to quantitatively assess the experiences of DBE and non-DBE firms within an agency's contracting environment. An example of how these techniques are used was discussed in Fregetto (1999).

Develop a Decision Support Model. The objective of this phase is to integrate the results of the first three phases into a Decision Support Model (DSM) that can be used to (1) assess the effectiveness of the agency's DBE program; (2) perform 'what-if' analysis to review scenarios and estimate the effects of changes to an agency's DBE policies; and (3) provide guidelines that can assist an agency in developing its DBE participation goals.

DSM's General Framework: DBE Goal Setting and Management

Based on the guidelines and the conceptual model presented above, we designed a general goal setting framework (Figure B) that involves both the development of numerical goals as well as narrowly tailored remedies. This framework is being presented to illustrate how the conceptual model can potentially be implemented.

In this framework, the authors do not make any presumptions regarding the existence of gender and/or racial disparity in the agency's contracting process. Such disparity can only be concluded after a thorough review of the findings. The framework takes into account possible outcomes regarding the assessment of disparity and will proceed in a manner consistent with the severity of the disparity. There are several phases to the framework, covering the following:

Figure B about here

Phase 1: Assessment and Audit. This phase involves a review of an agency's contracting, procurement and general business processes as part of analyzing systemic practices that may result in disparity. The results of this phase will provide information that can be the basis for developing practical legal advice to remove systematic barriers that may be preventing minority firms from participating in the agency's contracts.

Phase 2: Analysis. The Decision Support Model will be core to the analysis required in the framework. The analysis phase involves a close examination of the major categories included in the industries which the agency contracts with to determine availability of firms. The definition of availability will include not only a measure of the total number of DBEs versus non-DBEs,

but should also make the distinction of ready, willing, and able firms and determine the capacity of those firms. In addition to the market analysis, a more detailed examination of an agency's contract award process is recommended, with two key objectives: (1) to identify the ways in which DBEs are included in the solicitation and recommendation process, and (2) to provide an estimate of the agency's capacity and utilization of DBEs, and the potential impact of the agency's past policy to "skew" the establishment of DBEs.

Phase 3: Review of Findings. In this phase, the results of the Assessment and Audit phase will be integrated with the key findings of the Analysis Phase. Based on the combined evidence, the agency can make a determination as to any past gender and/or racial disparities in the letting of contracts.

Phase 4.A (Minimal or No Disparity): Goal Refinement and Monitoring. If the disparities are determined to be minimal or non-existent, the agency can use the results of the previous phases in setting the minority participation goals for its contracts. In addition, the agency can also develop the necessary metrics and deploying the mechanisms that will monitor its contracting and procurement processes. In this way, the agency will be pro-active in identifying and addressing potential disparities in the future.

Phase 4.B.1 (Significant Disparity): Development of Remedial Programs and Setting Goals. If the disparities are determined to be significant, the agency can develop narrowly tailored, race-neutral remedies to redress any disparities. As part of this phase, the agency can also develop a detailed plan of action for implementing the recommendations.

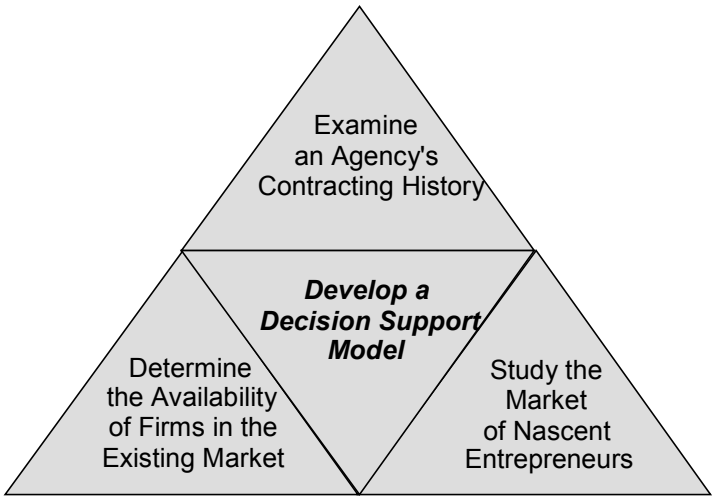
Phase 4.B.2: Implementation and Follow-Up Assessment. This phase involves the deployment of the remedies and analysis of their effectiveness. A follow-up assessment may be necessary after an appropriate period of time (6 to 12 months) to determine whether policy modifications are necessary.

Phase 4.B.3: Monitoring. After the remedies are deemed to be effective, the agency can also develop the necessary metrics and deploy the mechanisms that will monitor the contracting and procurement processes. In this way, the agency will be pro-active in identifying and addressing potential disparities in the future.

CONCLUSION

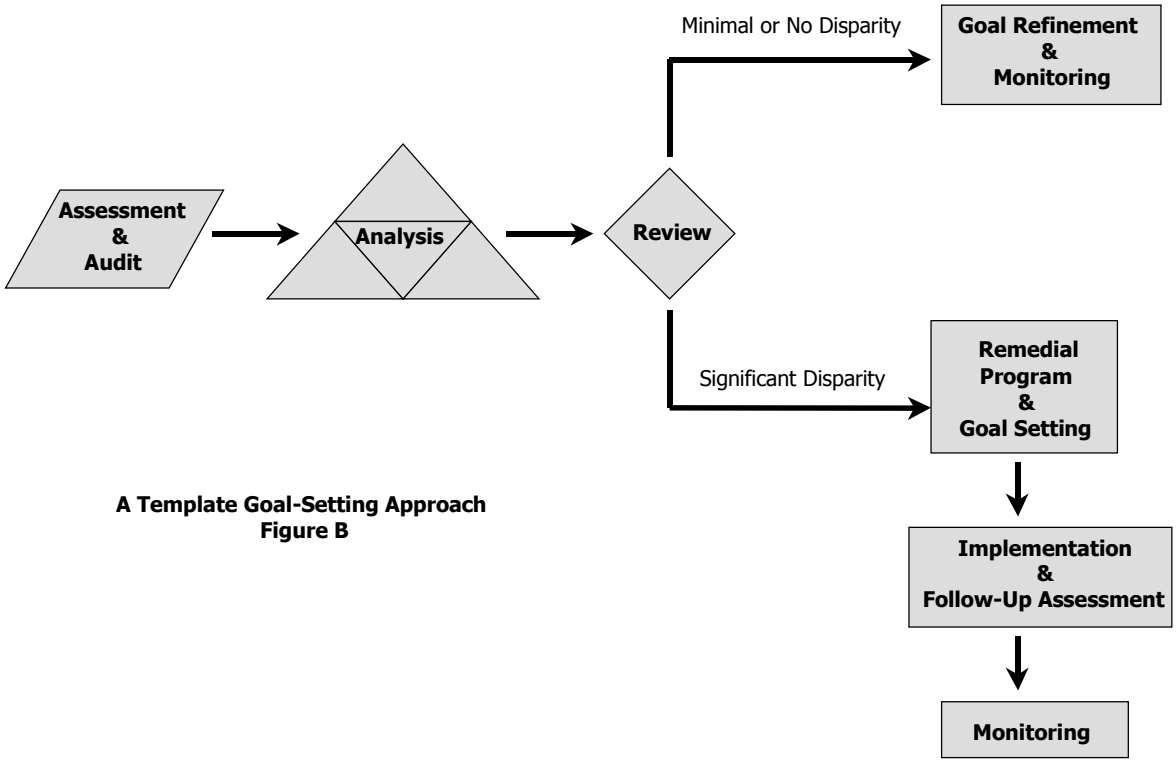
The authors have outlined a set of ideas for implementing a decision-support based model for conducting Disparity Studies. The model is based on the belief that a disparity study on the availability of DBE firms should not only focus on the existing market but should also include an analysis of the possible form that the future market could take. Based on the framework presented in figures A and B, the proposed model includes the determination of the availability of firms in the existing market and a study of the market of nascent entrepreneurs.

Figure A - Framework for a Decision Support Model



Framework for a Decision Support Model
Figure A

Figure B - A Template Goal Setting Approach



A Template Goal-Setting Approach
Figure B

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