



Highlights of [GAO-04-9](#), a report to Chairman and Ranking Minority Member, House Committee on Small Business; Ranking Minority Member, Senate Committee on Small Business and Entrepreneurship

Why GAO Did This Study

The Small Business Administration (SBA) approved about \$8.6 billion in loan guarantees through its 7(a) loan program in fiscal year 2003. SBA must estimate the subsidy cost of this program. Since fiscal year 2003, SBA has been using econometric modeling to estimate the subsidy. This report reviews SBA's estimation methodology and equations, assesses the default and recovery rates the model produced, identifies ways to enhance the estimates' reliability, describes the process for developing the model, and analyzes SBA's data.

What GAO Recommends

SBA should (1) determine whether to include in the model other information from its new loan monitoring system, (2) periodically evaluate and update the model, and (3) document the model development process. OMB should require agencies to document the basis and process for developing their credit subsidy models.

SBA agreed with recommendations to improve the final model but SBA and OMB disagreed that the model development was inadequately documented and disagreed with our recommendations to improve such documentation and guidance.

However, given the difficulty experienced by reviewers due to inadequate documentation, we continue to recommend that SBA document the basis and process for developing its model and that OMB

www.gao.gov/cgi-bin/getrpt?GAO-04-9.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Davi D'Agostino at (202) 512-8678 or dagostinod@gao.gov.

SMALL BUSINESS ADMINISTRATION

Model for 7(a) Program Subsidy Had Reasonable Equations, but Inadequate Documentation Hampered External Reviews

What GAO Found

From an economics perspective, SBA's econometric equations were reasonable, and its model produced estimated default and recovery rates that were in line with historical experience. However, from an audit perspective, SBA's lack of documentation of the model development process precluded GAO, and others, from independently evaluating the model's development and determining if SBA used a sound and consistently applied method to select and reject model variables.

Taking into account economic reasoning and research, SBA's econometric equations for estimating defaults, prepayments, and recoveries were reasonable. SBA's equations used a limited set of variables; equations using other variables could also be reasonable but would produce different estimates. Since an estimate is an approximation, no one estimate can be considered accurate, and reasonable estimates can fall within a range of values. The model's estimated default and recovery rates were in line with recent historical experience. SBA could improve its estimation methodology by periodically checking for and correcting errors and should consider adding more borrower information, such as credit scores. Some errors in the model resulted in understating the estimated program costs.

SBA used the expertise of other agencies and a contractor to develop its model and worked closely with the Office of Management and Budget (OMB), which must approve the methodology agencies use to estimate subsidies. OMB officially approved the model in the fall of 2002.

SBA did not adequately document its model development process, including alternative variables considered and rejected, to enable external reviewers to assess the process that was used. Further, GAO and two other independent reviewers could not determine whether a bias existed in the model by systematically excluding variables to influence the subsidy rate in a particular direction. Adequate documentation, a key internal control, would enable SBA and other agencies to demonstrate the rationale and basis for key aspects of the model that provide important cost information for budgets, financial statements, and congressional decision makers and facilitate SBA's annual financial statement audit. Current OMB and other guidance is either silent or unclear about the level of documentation necessary for credit subsidy model development.

SBA had a process to help ensure data integrity and data consistency in the equations with the loan-level data in its databases. Although errors existed in SBA's data systems, the magnitude and nature of these errors were not likely to significantly affect the subsidy rate.