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United States General Accounting Office  
Washington, DC 20548

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August 21, 2001

The Honorable John F. Kerry  
Chairman  
The Honorable Christopher S. Bond  
Ranking Minority Member  
Committee on Small Business  
United States Senate

The Honorable Donald A. Manzullo  
Chairman  
The Honorable Nydia M. Velazquez  
Ranking Minority Member  
Committee on Small Business  
House of Representatives

Subject: Small Business Administration: Section 7(a) General Business Loans Credit Subsidy Estimates

In your May 4, 2001, letter, you expressed concerns about the Small Business Administration's (SBA) 7(a) Business Loan Program subsidy rate calculations. As agreed with the staff of your committees, we reviewed the subsidy rate estimation process and the data SBA uses in its calculation, with a specific focus on defaults and recoveries. We identified differences between originally estimated defaults and recoveries and actual data, and the causes of these differences. Additionally, we assessed the implications of proposed changes to SBA's current approach to estimate defaults. On July 30, 2001, we briefed your staff on the results of our review. This letter transmits the material from the briefing.

In summary, the process and types of data SBA uses to estimate the subsidy cost of the 7(a) program are generally reasonable and comply with existing Office of Management and Budget (OMB) guidance. However, our review of actual and originally estimated defaults and recoveries showed that, on a cumulative basis since 1992, defaults were overestimated by approximately \$2 billion and recoveries were overestimated by approximately \$450 million.<sup>1</sup> During this same period, SBA overestimated the cost of the 7(a) program by \$958 million as evidenced from a trend

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<sup>1</sup>Because SBA calculates estimated recoveries as a percent of estimated defaults, most of the overstated recoveries resulted from the initial overestimate of defaults. When recoveries were calculated independent of the default overestimate, the cumulative overstatement of recoveries was less than 1 percent of actual recoveries, or about \$3 million.

of downward reestimates.<sup>2</sup> The majority of these downward reestimates can be attributed to the overestimate of defaults.

For those loan guarantees approved from 1992 through 1997, we were unable to determine the specific reason for the overestimate of defaults primarily because the basis SBA used for the estimated default rate for these years was not documented.<sup>3</sup> Reestimates during this period account for approximately 84 percent of the total \$958 million reestimate. SBA began using its current methodology in 1998. This methodology uses average historical data since 1986 to estimate defaults. Under this method, high default rates associated with loan guarantees approved in fiscal years 1986 through 1990 contributed to the difference between estimated and actual defaults for loan guarantees approved from 1998 through 2000.

SBA has proposed to OMB another methodology that uses the 5 most recent years of actual loan performance prior to each activity year being estimated—referred to as the lookback period<sup>4</sup>—rather than the current approach that uses all actual loan performance since 1986, to estimate loan performance for each activity year. OMB is currently considering this proposal. Either approach has certain benefits and inherent risks.

Under the current approach, initial estimates of the subsidy rate are fairly stable because they include more years of historical data that smooth out fluctuations in economic conditions from year to year. As previously mentioned, the current approach includes several early years with relatively high default rates. A benefit of this approach, given SBA's historical experience, is that it provides a cushion in the event of an unexpected downturn in the economy. However, this cushion ties up appropriations that could have been available to other discretionary programs. As has recently been the case for SBA, this approach is more likely to result in continuing annual downward reestimates when there is a strong economic environment.

The proposed method would be more sensitive to fluctuations in economic conditions or changes in program delivery or design because it uses a shorter lookback period. The benefit of this approach is that, in a continuing stable economy, the original subsidy cost estimate would be expected to more closely match actual loan performance and reestimates would therefore be smaller. However, the risk of this approach is that a sudden downturn in the economy would be much more likely

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<sup>2</sup>In addition to the differences between actuals and estimates to date, the total downward reestimate would also be affected by the present value of these differences and changes in the estimates for expected future loan performance.

<sup>3</sup>According to SBA officials, prior to the estimate of the 1998 cohort's subsidy cost in fiscal year 1996, subsidy cost estimates were prepared based on direct consultation with OMB.

<sup>4</sup>For example, under the 5 year lookback period, the 2002 cohort estimate of year one default activity would be based on the average actual first year defaults that occurred for the 1996 through 2000 cohorts and the second year default activity would be based on actual second year defaults that occurred for the 1995 through 1999 cohorts. Under the current approach, the lookback for all activity years includes the average of all cohorts back to 1986.

to result in actual loan performance being different than estimated and thus would likely result in larger upward reestimates than under the current approach.

SBA generally agreed with the information presented in this briefing. SBA officials added, however, that they view the proposed changes in default estimation methodology to be an interim solution. SBA views the long-term solution as a sophisticated econometric modeling approach. Econometric modeling considers key relationships between loan performance and economic and other indicators.

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We are sending copies of this letter to the Administrator of the Small Business Administration and the Director of the Office of Management and Budget. This letter will also be available on GAO's homepage at <http://www.gao.gov>.

If you have any questions, please contact me at (202) 512-9508 or by e-mail at [calboml@gao.gov](mailto:calboml@gao.gov), or contact Dan Blair, Assistant Director, at (202) 512-9401 or by email at [blaird@gao.gov](mailto:blaird@gao.gov). Key contributors to this letter were Marcia Carlsen, Ruth Sessions, and Bill Shear.



Linda M. Calbom  
Director  
Financial Management and Assurance

Enclosure

**Briefing Before the Staffs of the Senate and House  
Committees on Small Business**



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Briefing to Staff of the Senate and House  
Committees on Small Business

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Small Business Administration  
Section 7(a) General Business Loans Credit Subsidy  
Estimates

July 30, 2001



- Objectives
- Scope and Methodology
- Background
- Process and Data Used to Estimate 7(a) Subsidy Costs
- Reestimates of the 7(a) Program Subsidy Costs
- Comparison of Originally Estimated Defaults and Recoveries to Actual Data
- Effect of Overestimating the 7(a) Program's Subsidy Cost
- Causes of Differences
- Implications of Proposed Changes
- Agency Comments



Our objectives for the Section 7(a) General Business Loans (the 7(a) program) review were to

- identify the types of data and process used to estimate the subsidy cost, including the incorporation of program changes,
- compare originally estimated defaults and recoveries from the 1992 through 2000 subsidy cost estimates to actual data recorded in the accounting system,
- determine the causes of differences between original estimates and actual defaults and recoveries,
- assess the implications of proposed changes to SBA's approach to estimate defaults.



- To achieve our objectives, we
  - discussed SBA's process and types of data used to prepare subsidy cost estimates with agency staff,
  - compared SBA's current process to prepare subsidy cost estimates to existing guidance from the Office of Management and Budget (OMB),
  - reconciled actual data used as a basis to estimate defaults and recoveries with data from the accounting system,<sup>1</sup>
  - analyzed trends in the actual defaults, recoveries and guaranteed percentages,

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<sup>1</sup> We were not able to reconcile to the actual data prior to fiscal year 1992 because the current accounting system was implemented in 1992 and does not include data prior to that time.



- compared the original estimated default and recovery amounts for the 1992 through 2000 cohorts<sup>2</sup> to actual loan performance data recorded in the accounting system,
  - discussed the causes of differences and proposed changes with SBA staff and OMB officials, and
  - determined the potential impact of various alternative approaches on subsidy cost estimates.
- Our audit work was conducted in Washington, D.C., from May 2001 through July 2001 in accordance with generally accepted government auditing standards.

<sup>2</sup> A cohort includes those direct loans or loan guarantees of a program for which a subsidy appropriation is provided for in a given fiscal year even if the loans are not disbursed until subsequent years.





- The 7(a) program guarantees loans made to small businesses that are unable to obtain financing on similar terms in the private credit market but can demonstrate the ability to repay the loan.
  - SBA reported that its share of outstanding 7(a) loan guarantees totaled nearly \$22.9 billion as of September 30, 2000. This represents about 65 percent of SBA's total loan guarantees outstanding.
  - From 1995 to 1996, SBA undertook a significant data gathering effort to capture historical loan performance for the 7(a) loan program and began using this data in 1996 to estimate the subsidy cost of the 1998 cohort.



- Since the inception of credit reform, the 7(a) program has had net downward reestimates of nearly \$1 billion.<sup>3</sup>
  - In March 2001, SBA submitted a proposal to OMB, which is discussed later in more detail, to adjust its approach to estimating the subsidy cost of the 7(a) program.
  - OMB is in the process of reviewing the recent SBA proposal.

<sup>3</sup> A downward reestimate indicates a cohort of loans or loan guarantees is expected to cost the federal government less than previously anticipated. This amount does not include the portion of the reestimate attributable to interest.



- Prior to the Federal Credit Reform Act (FCRA) of 1990, credit programs--like most other federal programs--were reported in the budget on a cash basis.
  - Loan guarantees appeared to be free in the budget year while direct loans appeared to be as expensive as grants.
  - This cash basis distorted costs and, thus, the comparison of credit program costs with other programs and each other.



- FCRA was, among other reasons, enacted to more accurately measure the government's costs of federal loan programs and to permit better comparisons both among credit programs and between credit and noncredit programs.
- Under FCRA, agencies are required to estimate the cost of extending or guaranteeing credit over the life of the loan, called the subsidy cost.
  - This cost is the estimated long-term cost to the government of direct loans or loan guarantees calculated on a net present value<sup>4</sup> basis, excluding administrative costs.

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<sup>4</sup> The net present value expresses expected future cash inflows and outflows in today's dollars. In calculating the present value, prevailing interest rates provide the basis for converting future amounts into today's dollar equivalents.



- In the subsidy cost calculation, agencies estimate the cash flows for a program, including (but not limited to) estimated defaults, recoveries, and fees, and the effects of prepayments, on a cohort basis, for the life of the loans.
- Generally, agencies are required to annually update the subsidy cost - referred to as reestimates - of each cohort based on information about the actual performance and/or estimated changes in future loan performance.
- FCRA recognized that agencies' ability to make subsidy cost estimates that mirrored actual loan performance could be impeded by various factors and provided permanent indefinite budget authority for reestimates that reflect increased credit program costs.



- Section 503 of FCRA states that OMB is responsible for, among other things,
  - coordinating subsidy cost estimates for executive branch agencies and
  - reviewing historical data and developing the best possible credit subsidy estimates.
  
- The Accounting and Auditing Policy Committee's<sup>5</sup> (AAPC) Technical Release 3, *Preparing and Auditing Direct Loan and Loan Guarantee Subsidies under the Federal Credit Reform Act*, identifies specific practices that, if fully implemented by credit agencies, will enhance their ability to reasonably estimate loan program costs.

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<sup>5</sup> The AAPC is sponsored by the Federal Accounting Standards Advisory Board.



- When calculating the subsidy cost of the 7(a) program, SBA considers, for the life of the loans guaranteed
  - (1) fees that will be received,
  - (2) the percent of total loan amounts guaranteed, which currently can not exceed 75 or 85 percent depending on the loan amount,
  - (3) the volume and mix of loan guarantees,<sup>6</sup> and
  - (4) the amount and timing of defaults and recoveries.
- To estimate defaults and recoveries, SBA averages its historical loan performance since 1986.<sup>7</sup>

<sup>6</sup> The volume and mix of loan guarantees refers to the total amount of loans SBA expects to guarantee and the various loan sizes based upon different fee and guaranteed percentages.

<sup>7</sup> SBA began using this historical database in 1996 to calculate the subsidy cost of the 1998 cohort.



- According to SBA staff, when there is a change in the 7(a) program's design, SBA staff
  - determine if the change affects existing assumptions or adds a new assumption to the subsidy cost calculation,
  - determine if there is any historical data that could be used to assess the impact of the change on the subsidy cost estimates, and
  - use informed opinion<sup>8</sup> to estimate the impact on the subsidy cost if no applicable historical experience exists.

<sup>8</sup> Informed opinion refers to the judgment of agency staff who make subsidy estimates based on their programmatic knowledge and/or experience. According to Technical Release 3, informed opinion is an acceptable approach in situations where historical data does not exist.





- SBA generally uses the same process and types of data as explained on the prior two slides to calculate reestimates of subsidy costs. In addition, as part of the reestimate process,
  - as actual loan performance becomes available, it replaces estimated cash flows and
  - expectations of future loan performance are updated based on information about actual performance and/or estimated changes in future loan performance.
- In summary, the process and types of data SBA uses to estimate the subsidy cost of the 7(a) program are generally reasonable and comply with existing OMB guidance.



- Since the inception of credit reform, SBA has overestimated the original subsidy cost of the 7(a) program by nearly \$1 billion, as evidenced by the net downward reestimate shown on the following slide.
- Because reestimate data were not separately available for interest, defaults, fees and other cash flows, we were unable to determine the net overestimate attributable to each of these factors.
- However, based on our comparisons of originally estimated defaults and recoveries to actual loan performance, a significant portion of the 7(a) program's total \$1 billion net reestimate is attributed to the overestimate of defaults.



Reestimates of the 7(a) Program Subsidy Costs

Reestimate History of the 7(a) Program  
(Dollars in millions)

Cohort	1997 Budget	1998 Budget	1999 Budget	2000 Budget	2001 Budget	2002 Budget	Cummulative
1992	\$5	(\$55)	(\$30)	(\$74)	(\$5)	(\$4)	(\$163)
1993	(14)	(77)	(50)	(80)	(21)	(16)	(259)
1994	53	(14)	(63)	(60)	(12)	(4)	(100)
1995	11	49	(68)	(60)	(1)	(4)	(73)
1996		32	37	(101)	(16)	(9)	(57)
1997			(24)	(86)	(39)	(0)	(149)
1998				(52)	(39)	(39)	(130)
1999					(13)	(11)	(24)
2000						(3)	(3)
Totals	\$54	(\$65)	(\$198)	(\$513)	(\$145)	(\$91)	(\$958)

Source: Small Business Administration

Note: For each annual reestimate, net amounts were either received from Treasury (1997 Budget) or returned to Treasury (1998 - 2002 Budget).



Comparison of Originally Estimated  
Defaults and Recoveries to Actual Data

- SBA originally overestimated defaults<sup>9</sup> for 1992 through 2000 by over \$2 billion, or about 87 percent, when compared to actual loan performance.
- Since estimated recoveries are based on a percent of estimated defaults, SBA also originally overestimated recoveries for 1992 through 2000 by nearly \$450 million, or about 62 percent, when compared to actual loan performance.
- According to SBA staff, overestimating fees also contributed to the 7(a) program total net reestimate. However, we did not attempt to quantify the effect of fees.<sup>10</sup>

<sup>9</sup> The amount defaulted is based on the portion SBA guarantees.

<sup>10</sup> In addition to the differences between actuals and estimates to date, the net reestimate would also be impacted by the present value of these differences and changes in the estimates for expected future loan performance.



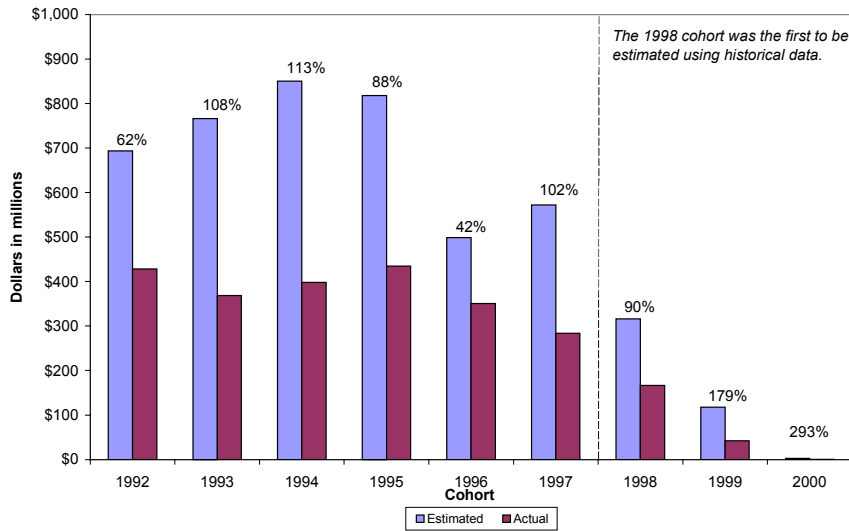
Comparison of Originally Estimated  
Defaults and Recoveries to Actual Data

- The following 4 slides summarize the results of our comparison of original estimates of defaults and recoveries to actual defaults and recoveries for the 1992 through 2000 cohorts.
- The original estimates of defaults and recoveries for each cohort are based on expectations of future loan performance from the time of origination through fiscal year 2000. Actual defaults and recoveries for each cohort are based on actual loan performance through fiscal year 2000.



Comparison of Originally Estimated Defaults and Recoveries to Actual Data

Percentage by which Originally Estimated Defaults were more than Actual Defaults for Fiscal Years 1992 through 2000 (Cumulatively by Cohort)

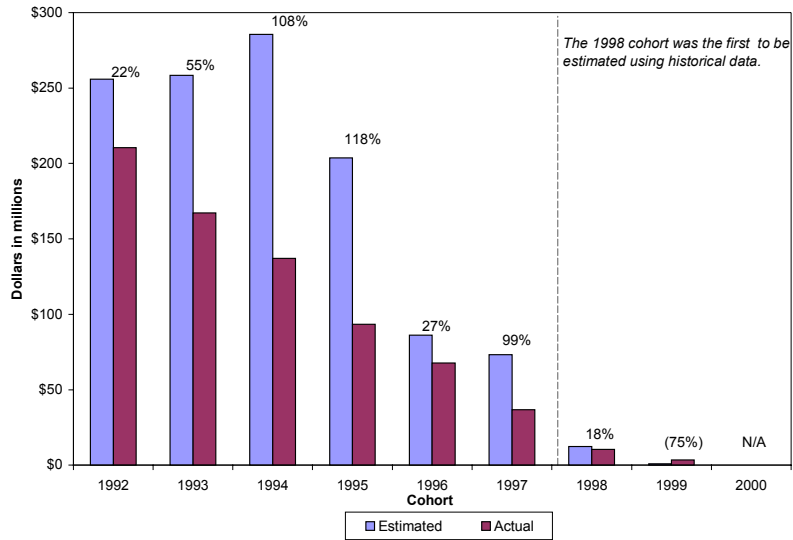


Source: GAO analysis based on SBA data.  
 Note: By the end of fiscal year 2000, only the 1992 through 1996 cohorts had reached the typical peak default years, which historically have been years 3 through 5 after approval.



Comparison of Originally Estimated Defaults and Recoveries to Actual Data

Percentage by which Originally Estimated Recoveries were more (less) than Actual Recoveries for Fiscal Years 1992 through 2000 (Cumulatively by Cohort)



Source: GAO analysis based on SBA data

Note: N/A indicates that there were no actual recoveries as expected for a cohort in its first year.



Comparison of Originally Estimated  
Defaults and Recoveries to Actual Data

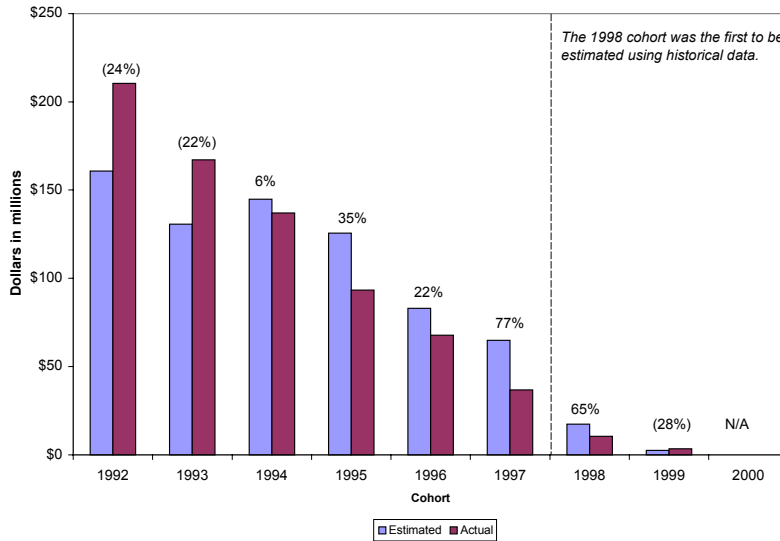
- In order to assess estimated recoveries independently from the effect of overestimating defaults, we compared estimated recoveries based on actual defaults to actual recoveries.
- This comparison, summarized on the next slide, showed that adjusting for the effect of originally overestimating defaults, estimated recoveries have more closely matched actual loan performance over time.
  - The cumulative difference between the adjusted estimate of recoveries and actual recoveries was about \$3 million, or about 1 percent of actual recoveries.





Comparison of Originally Estimated Defaults and Recoveries to Actual Data

Percentage by which Adjusted Estimated Recoveries were more (less) than Actual Recoveries for Fiscal Years 1992 through 2000 (Cumulatively by Cohort)



Source: GAO analysis based on SBA data.

Note: Estimated recoveries were adjusted to be based upon actual defaults in order to remove the effect of overestimating defaults. N/A indicates that there were no actual recoveries for the cohort, as expected for a cohort in its first year.



- Because the 7(a) program is a discretionary credit program, overestimating the cost can affect the number or size of loans guaranteed, if the program runs out of budget authority.
- However, according to SBA and OMB, the 7(a) program has typically not depleted its allocated budget authority and has generally met its demand for loan guarantees.
  - According to SBA, the 7(a) program did run out of budget authority a few days before the end of fiscal year 1995, preventing SBA from issuing some loan guarantees. However, SBA issued loan guarantees for those loans the following fiscal year. Further, for a part of 1997, SBA established a temporary cap on the size of loans it guaranteed, which limited the amount of subsidy available per loan.



- Appropriations for the original 7(a) program subsidy cost, like other discretionary credit programs, are counted under the discretionary spending caps and must compete with other discretionary programs for the funding available under these limits.
- The cumulative result of the overestimates of the subsidy cost of the 7(a) program is that \$958 million of budget authority was not available for other discretionary programs for fiscal years 1992 through 2000.



- For the 1992 through 1997 cohorts,<sup>11</sup> the specific reason for the differences between originally estimated and actual defaults is unclear because the basis of the estimate is unknown.
  - SBA did not begin to use its historical data until 1996, when it calculated the original subsidy cost estimate for the 1998 cohort.
  - According to SBA officials, prior to 1996, subsidy cost estimates were prepared based on direct consultation with OMB and the basis used for the default estimates was not documented.
  - However, SBA believes one of the reasons for the differences was an unexpected good economy.

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<sup>11</sup> Reestimates of the 1992 through 1997 cohorts have accounted for 84 percent of the 7(a) program's total downward reestimate.



- The reason for the differences between originally estimated and actual defaults for the 1998 through 2000 cohorts is that the historical average default rate used as the basis for the default estimate was greater than recent loan performance.
  - The historical average default rate was higher because loans guaranteed in fiscal years 1986 through 1990 defaulted at a significantly higher rate than those for later years.
  - SBA attributes the high default rates in fiscal years 1986 through 1990 generally to differences in (1) economic conditions, (2) guarantee percentages, and (3) underwriting standards.
  - The loans in the 1998 through 2000 cohorts are still relatively new and have not yet reached the typical peak default years, which historically have been years 3 through 5 after approval.



- In March 2001, SBA submitted a proposal to OMB<sup>12</sup> that discusses using 5 years or 3 years of the most recent actual loan performance - referred to as the lookback period<sup>13</sup> - as the basis for the 7(a) program default estimate in order to more closely track with actual loan performance in the future. SBA recommends the 5 year lookback period.
- This proposal is based on SBA's analysis that showed that the most recent years of actuals are more predictive of near-term future loan performance, notwithstanding a sudden shift in the economy.

<sup>12</sup> In the past, SBA has proposed other methods to refine its default estimates to OMB. According to OMB, SBA has not provided acceptable support that the alternatives would provide better estimates.

<sup>13</sup> For example, under the 5 year lookback period, the 2002 cohort estimate of year one default activity would be based on the average actual first year defaults that occurred for the 1996 through 2000 cohorts and the second year default activity would be based on actual second year defaults that occurred for the 1995 through 1999 cohorts.



- Because the lookback period is shorter, original subsidy cost estimates, as well as annual reestimates of outstanding cohorts, would be more sensitive to fluctuations in economic conditions or changes in program delivery and design.
- The benefit of this approach is that in a continuing stable economy, the original subsidy cost estimate would be expected to more closely match actual loan performance and reestimates would therefore be smaller.



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- However, the risk of this approach is that a sudden downturn in the economy would be much more likely to result in actual loan performance being different than estimated and thus could result in larger reestimates.
- If SBA were to implement a shorter lookback period approach, its next reestimate would likely be large because expectations of future loan performance of outstanding cohorts would also be impacted by the change.





- Under SBA's current approach, initial estimates of the subsidy rate are fairly stable because of the longer lookback period, which smoothes out fluctuations in economic conditions from year to year.
  - This approach is based on the concept that, averaging "good" and "bad" years is the best way to estimate the effect of uncertain future economic conditions.
  - The benefit of this approach is that it provides a "cushion" in the event of an unexpected downturn in the economy.



- The consequence of this approach is that the “cushion” ties up appropriations that could have been available to other discretionary programs.
- This approach is also more likely to result in continuing annual downward reestimates in a strong economic environment.
- However, in a less favorable economy, the current approach may result in original subsidy cost estimates that are closer to actual loan performance than the proposed 5 year lookback approach.



- The following table contrasts the impact of using the current approach, a 5 year lookback, and a 3 year lookback to estimate the subsidy cost of the fiscal year 2002 cohort.

Estimation Alternatives' Effect on Subsidy Rate and Appropriation for the Fiscal Year 2002 Cohort

	Default Rate	Subsidy Rate	Appropriation
Current Approach	13.87%	1.07%	\$114,490,000
5 Year Lookback	9.74%	-0.40%	-\$42,800,000
3 Year Lookback	8.97%	-0.61%	-\$65,270,000

Source: GAO analysis based on SBA data.

Note: Estimated appropriation assumes that all other assumptions remain unchanged.



- For both the 5 year and 3 year lookback approach, we estimated a negative subsidy, meaning that the program is estimated to “make money” for the federal government.
  - We estimated that the 5 year and 3 year lookback would project a negative subsidy of \$43 million and \$65 million, respectively, versus a subsidy cost of \$114 million under the current approach.



- SBA generally agreed with the information presented in this briefing. SBA officials added that they view the proposed change in the default estimation methodology to be an interim solution. SBA views the long-term solution as a sophisticated econometric modeling approach.
  - Econometric modeling is meant to include any estimated quantitative method of analysis. It defines key relationships between loan performance and economic and other indicators.
  - SBA has already started work on this type of methodology.