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United States General Accounting Office  
Washington, DC 20548

Accounting and Information  
Management Division

B-284410

January 14, 2000

The Honorable Andrew Cuomo  
The Secretary of Housing and Urban Development

Subject: Credit Reform: HUD's Fiscal Year 2000 Credit Subsidy Budget  
Estimates Were Reasonable, But Could Have Been Improved

Dear Mr. Secretary:

This letter summarizes the information provided during our December 1, 1999, briefing to your agency. We reviewed the Federal Housing Administration's<sup>1</sup> (FHA) credit subsidy budget estimates used to formulate the fiscal year 2000 President's Budget to determine whether (1) these estimates were reasonable and (2) any changes need to be made to the credit subsidy estimation process to ensure that future budget estimates are reasonable. To accomplish our objectives, we chose the largest multifamily and single family loan guarantee programs—the Section 221(d)(4) Program of the National Housing Act and the Mutual Mortgage Insurance (MMI) Fund, respectively. Combined, these programs represented 81 percent of the Department of Housing and Urban Development's (HUD) outstanding loan guarantees as of September 30, 1998.

### Results in Brief

We determined that the estimates of loan program costs included in the fiscal year 2000 President's Budget for the Section 221(d)(4) and the MMI Fund loan guarantee programs were reasonable, given the nature of estimates. However, the process used to calculate these estimates could be improved, which would also have improved the quality of the estimate. For example, the financial statement audit work related to the Section 221(d)(4) program, which was available after the submission of the fiscal year 2000 budget estimate to the Office of Management and Budget (OMB), identified better sources of data that would have reduced the estimated program cost by nearly \$12 million or 9 percent of the original cost over the life of the loans made during fiscal year 2000 and estimated to be outstanding for up to 40 years. Further, the MMI Fund budget estimate was prepared with a cash flow model containing several

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<sup>1</sup>FHA is a government corporation and a major component of the Department of Housing and Urban Development.

formula errors. Although some of these errors were identified and corrected during the 1998 audit prior to the budget submission, a lack of coordination between the budget and financial statement audit processes and the lack of a detailed supervisory review allowed these errors to remain in the budget model. If all the identified errors had been corrected in the budget model, the estimated net receipts of the MMI Fund would have increased by \$96 million, or 4 percent of the original net receipts amount over the life of the loans made during fiscal year 2000 and estimated to be outstanding for up to 30 years. We obtained oral comments on a draft of our briefing slides from FHA officials, who generally agreed with our findings, conclusions, and recommendations.

### **Background**

Prior to the implementation of the Federal Credit Reform Act (FCRA) of 1990, credit programs—like other federal programs—were reported in the budget on a cash basis. Thus, loan guarantees appeared to be free while direct loans appeared to be as expensive as grants in a given budget year. FCRA was enacted to more accurately measure the government's costs of federal credit 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, 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>2</sup> basis, excluding administrative costs.

The Federal Accounting Standards Advisory Board (FASAB) developed the accounting standard for credit programs, Statement of Federal Financial Accounting Standards (SFFAS) No. 2, *Accounting for Direct Loans and Loan Guarantees*, which became effective for fiscal years ending September 30, 1994, and thereafter, and generally mirrored FCRA. SFFAS No. 2 established guidance for recording direct loans and the liability for loan guarantees (LLG) for financial statement reporting purposes and expanded upon the guidance for estimating the costs of direct and guaranteed loan programs. When FASAB developed SFFAS No. 2, the Board recognized that financial accounting should support the budget and that accounting standards for credit reform should be consistent with the budgeting under credit reform. This mirroring allows for integrity in the budget process through the financial statement audit. However, without consistency between the financial statement and budgeting processes, this integrity cannot be fully achieved.

FASAB's Accounting and Auditing Policy Committee's Technical Release, *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. Credit subsidy estimates should be based upon the best available data when the estimates are made;

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<sup>2</sup>Present value is the worth of a future stream of returns or costs in terms of money paid immediately. In calculating present value, prevailing interest rates provide the basis for converting future amounts into their "money now" equivalents.

informed opinion<sup>3</sup> may be used in certain limited instances when agencies lack adequate historical data. Because the President's Budget is prepared 2 years in advance, the fiscal year 2000 budget estimates of loan program costs were prepared during the same time period as the fiscal year 1998 financial statement estimates of loan program costs, generally using the same data.

As part of the fiscal year 1998 FHA audit, the cash flow models and assumptions used to estimate FHA's LLG line item were reviewed by the independent public accountants (IPA) and determined to be a reasonable basis for estimating the costs of FHA's loan programs. FHA received an unqualified audit opinion on its fiscal year 1998 financial statements and HUD received its first unqualified audit opinion on its consolidated financial statements for the same year.

During prior work<sup>4</sup> related to HUD's implementation of credit reform, we evaluated the cash flow models used to develop the fiscal year 1997 budget and identified numerous problems, such as formula errors and inconsistent calculations of cash flow assumptions. We also determined that HUD lacked a formal supervisory review process and the MMI Fund cash flow model required extensive manual data entry, which increased the likelihood of errors. As a result of these findings, we recommended that HUD "implement existing plans to develop written policies and procedures including a formal supervisory review process for estimating the cost of credit programs."

#### **Section 221(d)(4) Credit Subsidy Cost Estimates Could Have Been Reduced Using Better Sources of Data Found During the Audit**

The fiscal year 2000 credit subsidy budget estimate and the fiscal year 1998 LLG for the Section 221(d)(4) Program were prepared using the same cash flow model. Within the cash flow model we identified nine key cash flow assumptions through sensitivity analysis.<sup>5</sup> For four of these nine, the cash flow assumption values in the budget model did not agree with the values in the LLG model. These differences existed because better sources of data were identified during the audit and used in calculating the LLG after the budget estimate had been submitted to OMB for inclusion in the fiscal year 2000 President's Budget. If the better sources of data for these four key cash flow assumptions in the budget model had been identified at the time the budget estimate was prepared, the budget request would have decreased by nearly \$12 million, or 9 percent of the original subsidy cost over the life of the loans

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<sup>3</sup>Informed opinion refers to the judgment of agency staff or others who make subsidy estimates based on their programmatic knowledge and/or experience.

<sup>4</sup>*Credit Reform: Key Credit Agencies Had Difficulty Making Reasonable Loan Program Cost Estimates* (GAO/AIMD-99-31, January 29, 1999).

<sup>5</sup>Sensitivity analysis is a process used to identify the assumptions within a cash flow model which, when altered, have the greatest impact on the cash flow estimate.

made during fiscal year 2000 and estimated to be outstanding for up to 40 years. Because the assumptions used to calculate the budget estimate were not significantly different than the assumptions used to calculate the LLG<sup>6</sup> and FHA used the best available data, we concluded that the budget estimate was reasonable, given the nature of estimates.

### **Legislative Changes and Formula Errors Affected the MMI Fund Budget Estimate**

The fiscal year 2000 MMI Fund credit subsidy budget estimate and the fiscal year 1998 LLG were not prepared using the same cash flow model. Recent legislative changes enacted prior to the submission of the budget estimate to OMB affecting future cash flows prompted FHA budget staff to adjust estimated cash flows for the budget estimate, while these legislative changes were not included in the LLG estimate. Also contributing to differences between the two estimates were formula errors in the budget model, several of which were identified and corrected in the LLG model during the fiscal year 1998 FHA audit and prior to the submission of the budget estimate to OMB. However, the corrections were not incorporated into the budget model.

There were two legislative changes included in the budget model but not in the LLG model. The first legislative change increased the maximum mortgage amounts by as much as 47 percent, effective January 1, 1999. Accordingly, FHA budget staff adjusted the estimated cash flows in the budget estimate for the increases.<sup>7</sup> The second legislative change was enacted in Section 601 of HUD's fiscal year 1999 appropriations act, and will add another method to resolve future claims. HUD anticipates Section 601, *Single Family Claims Reform and Sale of Property*, to be implemented during 2002. FHA budget staff used limited historical data and informed opinion from a program manager and budget analyst to estimate future loan performance under Section 601.<sup>8</sup>

Differences were also caused by formula errors in the budget model, including several that were identified and corrected in the LLG model during the fiscal year 1998 FHA audit prior to the submission of the fiscal year 2000 budget estimate. While some of the formula errors in the budget model were corrected after being identified and corrected in the LLG model, others were not. Enhanced coordination between

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<sup>6</sup>FHA received an unqualified audit opinion on its fiscal year 1998 financial statements that included this LLG.

<sup>7</sup>Because the increases to the maximum mortgage amounts did not become effective until January 1, 1999, and were not applicable to the existing portfolio of loan guarantees, the effect of this legislative change was not included in the fiscal year 1998 LLG. However, the effects of this legislative change were included in the fiscal year 2000 budget estimate because the loan guarantees being estimated were eligible for the increased maximum mortgage amounts.

<sup>8</sup>Because the details of the legislative change had not yet been developed, the effect was not reasonably estimable and was excluded from the fiscal year 1998 LLG. However, because the estimated effect of this change must be calculated for budgetary purposes, HUD used the best available data at that time.

the budget and financial statement audit processes and a detailed supervisory review could have resulted in additional corrections being made in the budget model prior to the submission of the budget estimate to OMB.

If all the errors previously discussed had been identified and corrected before the fiscal year 2000 President's Budget submission, the estimated negative subsidy,<sup>9</sup> (net receipts) associated with the MMI Fund would have increased by \$96 million, or 4 percent of the original negative subsidy amount over the life of the loans made during fiscal year 2000 and estimated to be outstanding for up to 30 years. FHA officials have stated that some of the errors we identified in the budget model have already been corrected and that the remaining errors will be corrected prior to the fiscal year 2001 budget submission. Further, efforts are underway to perform a detailed cell-by-cell review of the budget model. Although differences existed between the budget and LLG estimates, we concluded that the budget estimate was reasonable, given the nature of estimates, because (1) the formula errors we found did not lead to significant differences, (2) the effects of legislative changes were appropriately excluded from the LLG estimate, and (3) FHA used the best available data to calculate the effects of legislative changes in the budget estimate.

### **Conclusion**

The fiscal year 2000 credit subsidy budget estimates for the Section 221(d)(4) Program and the MMI Fund were reasonable, given the nature of estimates. However, the process by which these estimates were prepared could be improved. Specifically, the process lacked the full benefits of the financial statement audit, due primarily to the timing of audit procedures, and not including all audit adjustments. Further, the MMI Fund budget estimate was not prepared with the same cash flow model that had been reviewed during the financial statement audit and lacked a detailed supervisory review. Therefore, we are reaffirming our prior recommendation to "implement a formal supervisory review process" and recommend additional specific guidance to enhance this review. Unless improvements are made in HUD's credit subsidy estimation process, the reasonableness of future estimates may be jeopardized.

### **Recommendations**

In order to improve HUD's credit subsidy estimation process, we recommend that the Secretary of the Department of Housing and Urban Development or his designee take the following actions:

- Minimize the differences between credit subsidy estimates for the budget and financial statements by implementing plans to adjust the timing of audit

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<sup>9</sup>A negative subsidy occurs when the subsidy costs are less than zero; that is, the present value of cash inflows to the government exceeds the present value of cash outflows.

procedures related to credit subsidies so that these procedures are completed in time for any alternative sources of data and/or errors identified during the audit to be factored into the President's Budget submission.

- Establish a process to incorporate all necessary revisions identified during the audit in time to meet the schedule for the President's Budget submission.
- Use the audited LLG model when preparing the President's Budget submission for the MMI Fund. In the interim, complete the detailed cell-by-cell review of the current budget model to identify and correct all formula errors.
- Establish a supervisory review process detailed enough to identify formula errors in budget models prior to submitting credit subsidy estimates to OMB for inclusion in the President's Budget.

### **Agency Comments**

We obtained oral comments on a draft of our briefing slides from FHA officials, who generally agreed with our findings, conclusions, and recommendations. Their comments have been incorporated where appropriate.

### **Scope and Methodology**

To fulfill our objectives, we selected the largest single family and multifamily FHA loan guarantee programs to determine whether the fiscal year 2000 credit subsidy budget estimates were reasonable. These programs, which represented 81 percent of HUD's outstanding guarantees as of September 30, 1998, were the multifamily Section 221(d)(4) Program of the National Housing Act with \$6.2 billion loan guarantees and the single family MMI Fund with \$380 billion loan guarantees. We determined whether the cash flow models used to calculate the fiscal year 2000 budget estimates were the same as the cash flow models used to calculate the fiscal year 1998 LLG, which were determined by the IPA to be a reasonable basis for estimating future loan performance during the FHA fiscal year 1998 audit.

For the multifamily Section 221(d)(4) Program, which used the same cash flow model for the fiscal year 2000 budget estimate and the fiscal year 1998 LLG estimate, we identified the key cash flow assumptions through sensitivity analysis. We compared the key cash flow assumption values in the budget estimate to the values in the LLG estimate, which were determined by the IPA to be reasonable during the FHA fiscal year 1998 audit. We reviewed supporting documentation for the key cash flow assumption values in the budget model that differed from the audited values in the LLG model and calculated the budgetary impact of these differences.

For the single family MMI Fund, which did not use the same cash flow model for the fiscal year 2000 budget estimate and the fiscal year 1998 LLG estimate, we attempted to perform sensitivity analysis on the budget model to identify the key cash flow assumptions. However, we discontinued this analysis after we identified formula errors in the budget model that would affect the results and determined that the analysis would not be reliable. We reviewed the budget model for formula errors, including corrections that had been made to the LLG model during the FHA fiscal

year 1998 audit and calculated the budgetary impact of the formula errors. We also discussed the formula errors with FHA officials. We reviewed supporting documentation for the effects of recently enacted legislative changes included in the fiscal year 2000 budget estimate and discussed these changes with FHA officials. We did not perform a detailed cell-by-cell review of the budget model.

We conducted our work in Washington, D.C., from July 1999 through November 1999 in accordance with generally accepted government auditing standards. The enclosed briefing slides highlight the results of our work and the information we provided during the briefing.

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The head of a federal agency is required by 31 U.S.C. 720 to submit a written statement on actions taken on these recommendations. You should submit your statement to the Senate Committee on Governmental Affairs and the House Committee on Government Reform not later than 60 days after the date of this letter. A written statement must also be sent to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of this report.

Copies of this letter will be made available to interested parties upon request. If you have any questions about this letter or the earlier briefing, please contact me at (202) 512-9508 or Dan Blair, Assistant Director, at (202) 512-9401. A key contributor to this assignment was Marcia Carlsen.

Sincerely yours,



Linda M. Calbom  
Director, Resources, Community,  
and Economic Development, Accounting  
and Financial Management Issues

Enclosure

Briefing to the Department of Housing and Urban Development

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GAO Accounting and Information  
Management Division

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**Briefing to the Department of Housing  
and Urban Development**

HUD's Fiscal Year 2000 Credit Subsidy  
Budget Estimates

December 1, 1999



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## GAO Contents

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- Objectives
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## GAO Objectives

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Our objectives were to determine

- (1) whether the Department of Housing and Urban Development's (HUD) fiscal year 2000 credit subsidy budget estimates for the Section 221(d)(4) Program and Mutual Mortgage Insurance Fund were reasonable and
- (2) whether any changes need to be made to HUD's credit subsidy estimation process to ensure that future budget estimates are reasonable.

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## GAO Background

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- Prior to the Federal Credit Reform Act (FCRA) of 1990, credit programs--like 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.

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## GAO Background

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- FCRA was 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 non credit programs. To do so, agencies must
  - estimate the cost of extending or guaranteeing credit, 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>1</sup> basis, excluding administrative costs.

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5 <sup>1</sup>Present value is the worth of a future stream of returns or costs in terms of money paid immediately. In calculating present value, prevailing interest rates provide the basis for converting future amounts into their "money now" equivalents.

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## GAO Background

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- The Federal Accounting Standards Advisory Board (FASAB) developed the accounting standard for credit programs, Statement of Federal Financial Accounting Standards (SFFAS) No. 2, Accounting for Direct Loans and Loan Guarantees, which
  - became effective with fiscal year 1994,
  - generally mirrors FCRA,
  - expanded upon guidance for estimating the cost of direct and guaranteed loan programs,

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## GAO Background

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- established guidance for recording direct loans and the liability for loan guarantees for financial reporting purposes, and
- states that each credit program should use a systematic methodology to project expected future cash flows.
- When FASAB developed SFFAS No. 2, the Board recognized “the value of having financial accounting support the budget” and that “accounting standards for credit reform [should] be consistent with the budgeting under credit reform.”

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## GAO Background

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- This mirroring allows for integrity in the budget process through the financial statement audit; however, this integrity cannot be achieved if consistency is not maintained between the financial statement and budgeting processes.

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## GAO Background

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- The Accounting and Auditing Policy Committee's<sup>2</sup> (AAPC) Technical Release 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.
- The technical release also states that
  - credit subsidy estimates should be based upon the best available data when the estimates are made and

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## GAO Background

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- informed opinion<sup>3</sup> may be used in certain limited instances to support cash flow projections in the absence of historical data, for example when changes in laws or agency regulations modify an existing program in ways that cannot be represented by historical data.

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<sup>3</sup>Informed opinion refers to the judgment of agency staff or others who make subsidy estimates based on their programmatic knowledge and/or experience.

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## GAO Background

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- During the fiscal year 1998 Federal Housing Administration<sup>4</sup> (FHA) audit, the cash flow models and assumptions used to estimate the liability for loan guarantee (LLG) line item were reviewed and determined by the independent public accountants (IPA) to be a reasonable basis for estimating the costs of FHA's loan programs.
- As a result, FHA was able to reasonably estimate the cost of its loan programs and received an unqualified audit opinion on its fiscal year 1998 financial statements, and HUD received its first unqualified audit opinion on its consolidated financial statements for the same year.

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## GAO Scope and Methodology

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- We selected the largest single family and multifamily FHA loan guarantee programs to determine whether the fiscal year 2000 credit subsidy budget estimates were reasonable. These programs, which represent 81% of HUD's outstanding guarantees as of September 30, 1998, were
  - the multifamily Section 221(d)(4) Program of the National Housing Act with loan guarantees totaling \$6.2 billion and
  - the single family Mutual Mortgage Insurance (MMI) Fund with loan guarantees totaling \$380 billion.

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GAO Scope and Methodology

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- We determined whether the cash flow models used to calculate the fiscal year 2000 budget estimates (the budget model) were the same as the cash flow models used to calculate the fiscal year 1998 LLG (the LLG model), which were determined, by the IPA, to be a reasonable basis for estimating future loan performance during the FHA fiscal year 1998 audit.

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## GAO Scope and Methodology

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- For the Section 221(d)(4) Program, which used the same cash flow model for its fiscal year 2000 budget estimate and the fiscal year 1998 LLG estimate, we
  - identified key cash flow assumptions through sensitivity analysis;<sup>5</sup>
  - compared key cash flow assumption values in the budget model to the values in the LLG model, which were determined, by the IPA, to be reasonable during the FHA fiscal year 1998 audit;

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<sup>5</sup>Sensitivity analysis is a process used to identify the assumptions within a cash flow model which, when altered, have the greatest impact on the cash flow estimate.

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## GAO Scope and Methodology

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- reviewed supporting documentation for key cash flow assumption values from the budget model which differed from the audited key cash flow assumption values in the LLG model; and
- calculated the budgetary impact of differences in key cash flow assumption values included in the budget model.

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## GAO Scope and Methodology

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- For the MMI Fund, which did not use the same cash flow model for its fiscal year 2000 budget estimate and the fiscal year 1998 LLG estimate, we
  - attempted to perform sensitivity analysis on the budget model to identify the key cash flow assumptions; however, we discontinued this analysis because we determined that formula errors in the model would affect the results and the analysis would not be reliable;
  - reviewed the budget model for formula errors, including corrections made to the LLG model during the FHA fiscal year 1998 audit;

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## GAO Scope and Methodology

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- discussed formula errors and the effects of recently enacted legislative changes included in the fiscal year 2000 budget estimate with FHA officials;
- reviewed supporting documentation for the effects of recently enacted legislative changes included in the fiscal year 2000 budget estimate; and
- calculated the budgetary impact of formula errors.
- We did not perform a detailed cell-by-cell review of the budget model.

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## GAO Scope and Methodology

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- Obtained and incorporated agency comments as appropriate.
- Conducted the review in accordance with generally accepted government auditing standards from July through November 1999.

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GAO Findings--Section 221(d)(4) Program

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- FHA's budget model was the same as the audited LLG model, which was determined by the IPA to be a reasonable basis for estimating future loan performance during the FHA fiscal year 1998 audit.
- We identified nine key cash flow assumptions through sensitivity analysis.

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GAO Findings--Section 221(d)(4) Program

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- Four of the nine key cash flow assumption values in the budget model did not agree with the audited values in the LLG model. These differences resulted because better sources of data were identified during the FHA fiscal year 1998 audit and used in the LLG model. These four assumptions were the
  - annual claim<sup>6</sup> rates, which represent the percentage of claims that are expected in a given year;
  - claim amount ratio, which adjusts the size of estimated claims to the unpaid principal balance at the time of the claim;

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<sup>6</sup>Claims are payments by FHA to reimburse guarantee lenders when a borrower defaults or is delinquent. Examples of claim types include property or note acquisitions, loan modifications, partial claim payments, and preforeclosure sales.

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GAO Findings--Section 221(d)(4) Program

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- historical recovery rate on note sales, which estimates the amount of claim payments that are estimated to be recovered through the subsequent sale of the acquired note; and
- recovery disposition percentages, which allocate the percentage of claims that are expected to be recovered through note sales, property sales, and paid-in-full recoveries.

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GAO Findings--Section 221(d)(4) Program

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- The audit of multifamily programs concluded after the budget estimate was submitted in December 1998 to the Office of Management and Budget (OMB) for inclusion in the fiscal year 2000 President's Budget. Thus, the better sources of data were not available at the time the fiscal year 2000 budget estimate was prepared.
- If the values calculated using the better sources of data found during the audit had been included in the budget estimate, the subsidy cost would have decreased by nearly \$12 million, or 9 percent of the original subsidy cost, meaning that the budget request could have been reduced by \$12 million.

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GAO Findings--Mutual Mortgage Insurance Fund

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- FHA's budget model was not the same as the audited LLG model, which was determined by the IPA to be a reasonable basis for estimating future loan performance during the FHA fiscal year 1998 audit.
- Differences primarily resulted from
  - legislative changes enacted before the fiscal year 2000 budget estimate was submitted and
  - formula errors, including several that were identified and corrected in the LLG model during the fiscal year 1998 FHA audit prior to the submission of the fiscal year 2000 budget estimate in December 1998.

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GAO Findings--Mutual Mortgage Insurance  
Fund

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- Differences related to recently enacted legislative changes that would affect future cash flows included
  - the maximum mortgage limits were increased as much as 47 percent--effective January 1, 1999 and
  - the Section 601 Single Family Claims Reform and Sale of Property legislation, which will add another method for resolving future claims--implementation is anticipated during 2002.

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GAO Findings--Mutual Mortgage Insurance Fund

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- We reviewed supporting documentation for these recently enacted legislative changes and discussed the effects included in the fiscal year 2000 budget estimate with FHA officials and determined that
  - FHA adjusted estimated cash flows related to the legislative increase to the maximum mortgage limits.
  - Limited historical data was available for the section 601 legislation. FHA used this limited data and informed opinion from a program manager and budget analyst as a basis for the estimate of future loan performance under the revised program.

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GAO Findings--Mutual Mortgage Insurance Fund

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- In addition to differences resulting from recently enacted legislation, differences also resulted from formula errors that were identified and corrected in the LLG model during the fiscal year 1998 audit prior to the submission of the fiscal year 2000 budget estimate.
- Some of the errors identified during the fiscal year 1998 audit, prior to the fiscal year 2000 budget submission, were corrected. For example, the calculation of loss mitigation claims<sup>7</sup> for loans insured in the second year was corrected in the fiscal year 2000 budget model and budget estimate.

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<sup>7</sup>Loss mitigation claims are special claim methods that are alternatives to foreclosure, such as loan modifications, which change the terms of the borrower's note with the guarantee lender.

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GAO Findings--Mutual Mortgage Insurance  
Fund

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- However, some errors identified in the LLG model during the fiscal year 1998 audit, prior to the fiscal year 2000 budget submission, could have been corrected in the budget model through enhanced coordination between the budget and financial statement audit processes. These errors occurred in connection with
  - the calculation of the estimated average claim amount for each type of claim, for example, the estimated average claim cost if HUD were to take possession of the property;

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GAO Findings--Mutual Mortgage Insurance  
Fund

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- the use of conditional claim and prepayment rates, which estimate the number of claims and prepayments expected in a given year based on the existing volume of guarantees outstanding; and
- the inclusion of the upfront mortgage insurance premium (UFMIP) in the average mortgage amount, which overstates annual premium receipts.

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GAO Findings--Mutual Mortgage Insurance  
Fund

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- Other errors that we identified during our review could have been detected and corrected for the fiscal year 2000 budget submission through a detailed supervisory review. These errors included
  - an incorrect calculation of the effective UFMIP percentage, which estimates upfront premium receipts based on the type of borrower or mortgage and rebate<sup>8</sup> payments and
  - several formula errors related to the calculations of estimated rebates and number of expected claims.

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<sup>8</sup>A rebate is a refunded portion of the UFMIP paid to borrowers who prepay their total loan balance within the first 7 years--the time period during which upfront premiums are considered "earned."

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GAO Findings--Mutual Mortgage Insurance Fund

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- If all these errors had been identified and corrected for the fiscal year 2000 President's Budget submission, the estimated negative subsidy<sup>9</sup> associated with the MMI Fund would have increased by \$96 million, or 4 percent of the original negative subsidy amount, meaning that the estimated MMI Fund net receipts could have been increased by \$96 million.

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<sup>9</sup>A negative subsidy occurs when the subsidy costs are less than zero, that is the present value of cash inflows to the government exceeds the present value of cash outflows.

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GAO Findings--Mutual Mortgage Insurance  
Fund

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- FHA officials stated that some of these errors have been corrected in the budget model for the fiscal year 2001 President's Budget submission. For example
  - the calculation of the effective UFMIP percentage was corrected to properly estimate upfront premium receipts based on the type of borrower or mortgage and rebate payments and
  - the use of conditional claim and prepayment rates was corrected.
- Additionally, FHA officials have stated that efforts are underway to perform a cell-by-cell review of the budget model and correct all remaining formula errors.

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GAO Conclusion

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- The fiscal year 2000 credit subsidy budget estimates for the Section 221(d)(4) Program and the MMI Fund were reasonable given the nature of estimates. However, the process by which these estimates were prepared could be improved.

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## GAO Recommendations

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In order to improve HUD's credit subsidy estimation process, we recommend that HUD take the following actions.

- Minimize the differences between credit subsidy estimates for the budget and financial statements by implementing its plans to adjust the timing of audit procedures related to credit subsidies so that these procedures are completed in time for any alternative sources of data and/or errors identified during the audit to be factored into the President's Budget submission.

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GAO Recommendations

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- Establish a process to incorporate all necessary revisions identified during the audit in time to meet the schedule for the President's Budget submission.
- Use the audited LLG model when preparing the President's Budget submission for the MMI Fund. In the interim, complete the detailed cell-by-cell review of the current budget model to identify and correct all formula errors.

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GAO Recommendations

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- Establish a supervisory review process detailed enough to identify formula errors in budget models prior to submitting the credit subsidy estimates to OMB for inclusion in the President's Budget.

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Penalty for Private Use \$300**

**Address Correction Requested**