

February 1990

**FEDERAL  
RESEARCH**

**Assessment of the  
Financial Audit for  
SEMATECH's  
Activities in 1988**



Resources, Community, and  
Economic Development Division

B-236668.1

February 16, 1990

The Honorable Sam Nunn  
Chairman, Committee on Armed Services  
United States Senate

The Honorable Les Aspin  
Chairman, Committee on Armed Services  
House of Representatives

Section 274 of the National Defense Authorization Act for Fiscal Years 1988 and 1989 (P.L. 100-180) requires that we review the annual audits of the financial statements of SEMATECH, Inc., a consortium of 14 U.S. semiconductor manufacturers and the Department of Defense (DOD), and provide comments to you on their accuracy and completeness. This report reviews the audit conducted by Price Waterhouse, an independent certified public accounting firm, of SEMATECH's financial statements for the year ending December 31, 1988.

The Price Waterhouse opinion, dated January 27, 1989, stated that SEMATECH's 1988 financial statements are fairly presented in all material respects in conformance with generally accepted accounting principles. In conformance with generally accepted government auditing standards, Price Waterhouse also issued reports on SEMATECH's internal accounting controls and compliance with laws and regulations that did not disclose any material internal control weaknesses or noncompliance with laws and regulations. In addition, Price Waterhouse issued a management letter making several recommendations that, although not material to the financial statements, would improve SEMATECH's management efficiency and enhance its internal control structure.

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## Results in Brief

We found nothing during our review to indicate that the Price Waterhouse opinion on the SEMATECH 1988 financial statements, or its reports on internal accounting controls and on compliance with laws and regulations, were inappropriate or could not be relied upon. However, because SEMATECH receives a significant amount of federal and state financial support, we believe SEMATECH's financial statements should more fully disclose items that otherwise would not be considered material or significant. In an August 1989 meeting, SEMATECH agreed to

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disclose in its financial statements for 1989 and thereafter the amount of

- federal contributions shown as revenue that were restricted because eligible costs had not yet been incurred;
- unallowable costs, which under SEMATECH's grant agreement with DOD have not been used for matching government funds; and
- interest on federal fund advances collected and reimbursed to the U.S. Treasury.

Price Waterhouse considered and documented in its working papers an accounting position on each of these items. It did not consider these items material or significant and did not take exception to SEMATECH's presentation of the items in the 1988 financial statements.

In addition, in response to our inquiries, SEMATECH's Vice President for Finance stated in November 1989 that the financial statements for 1989 and thereafter will recognize \$34.3 million in contributions by the University of Texas for property, facilities, and furnishings by amortizing the contributions on a straight-line basis over SEMATECH's 20-year lease with the University. While not an issue in the 1988 financial statements, recognition of the University's contribution will be relevant for the duration of federal funding of SEMATECH. We believe that the value of the University's contribution, based on costs that the University incurred, should be \$48.2 million, rather than \$34.3 million, thus providing a more accurate basis for the allocation of funding between government and SEMATECH's member companies. We also believe that a portion of the contribution—at least \$10.5 million for specialized equipment and office furnishings—should be amortized over a 5-year period rather than over 20 years. SEMATECH is depreciating similar assets that it had purchased over a 5-year period, and this is the approximate useful life of such equipment and furnishings.

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## Background

SEMATECH was incorporated in Delaware in August 1987 as a nonprofit research and development corporation with the objective of advancing semiconductor manufacturing technology. The National Defense Authorization Act for Fiscal Years 1988 and 1989, enacted in December 1987, authorized the Secretary of Defense to make grants to SEMATECH to defray research and development expenses. The act required the Secretary of Defense to enter into a memorandum of understanding that provided, in part, that (1) the total amount of funds made available to SEMATECH by federal, state, and local government agencies for any fiscal

year for the support of research and development activities may not exceed 50 percent of the total cost of such activities and (2) an independent, commercial auditor submit annual reports to the Secretary of Defense, SEMATECH, and the Comptroller General on the extent to which SEMATECH's use of federal funds is consistent with the purposes of the act and SEMATECH's charter and annual operating plan. The Congress appropriated \$100 million annually in fiscal years 1988 through 1990 for SEMATECH.

In April 1988 the Secretary of Defense delegated responsibility for overseeing SEMATECH to the Defense Advanced Research Projects Agency (DARPA). DARPA has approved the consortium's operating plans, and DARPA's program manager has served as a nonvoting member on SEMATECH's Board of Directors.<sup>1</sup> In May 1988 DARPA entered into a memorandum of understanding with SEMATECH and signed a grant agreement. DARPA delegated specific grant administration functions to the Office of Naval Research's resident office in Austin, Texas. The agreement provides that federal funds will be made available in increments to match SEMATECH member companies' contributions. In 1988 SEMATECH received \$78 million from its member companies and \$77 million from DARPA.

SEMATECH selected Austin, Texas, as the consortium's permanent location in January 1988. To attract SEMATECH, the State of Texas—through the University of Texas—contributed \$48.2 million consisting of (1) \$10.2 million for the purchase of a 46-acre site in southeast Austin, including a five-story office building and a warehouse, and (2) \$38 million for renovating and furnishing the office building, constructing a central utility building, partially renovating the warehouse into a semiconductor fabrication facility, issuing bonds to pay for the construction and improvements, and paying first-year interest on the bonds. SEMATECH paid the additional costs for completing construction of the fabrication facility, which was dedicated in November 1988.

In May 1988 the University of Texas and SEMATECH signed a lease for SEMATECH's use of land, facilities, and capital improvements over 20 years for a nominal amount. Under this operating lease arrangement, the University of Texas retains title to the property with no option for SEMATECH purchase. The lease became effective in January 1989, when the certificate of substantial occupancy was issued for the fabrication facility.

<sup>1</sup>Our report, *Federal Research: The SEMATECH Consortium's Start-up Activities* (GAO/RCED-90-37, Nov. 3, 1989), assessed SEMATECH's operations and DARPA's oversight.

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## Agreements About Future Disclosures

In an August 1989 meeting with SEMATECH's Vice President of Finance and Price Waterhouse audit staff, SEMATECH agreed to make additional disclosures in its financial statements for 1989 and thereafter about the amount of (1) federal contributions shown as revenue that were restricted because eligible costs had not yet been incurred; (2) unallowable costs, which under the grant agreement with DOD would not be used for matching government funds; and (3) interest on federal fund advances collected and reimbursed to the U.S. Treasury.

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## Federal Contribution Revenue

SEMATECH recognizes contributions from the federal government as revenue when the funds are received, rather than when they are expended. The federal contribution is restricted to payment of eligible capital and operating costs and the funds would have to be returned to the government if not expended for this purpose. We noted that as of December 31, 1988, \$19 million of the \$77 million federal contribution were unexpended and, therefore, restricted until the eligible capital and operating costs were incurred. SEMATECH did not consider the federal funds restriction significant to the 1988 financial statements, given its commitments to purchase about \$39 million of machinery, equipment, and other assets as of December 31, 1988. Price Waterhouse did not take exception to SEMATECH's financial statement presentation of revenue.

SEMATECH's Vice President for Finance has agreed to disclose this restriction on revenue recognition and federal funding in footnotes to its financial statements for 1989 and future years.

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## Unallowable Costs

The Office of Management and Budget's Circular A-122, "Cost Principles for Nonprofit Organizations," establishes principles for determining costs for federal grants and defines legally allowable and unallowable costs. Unallowable costs include excessive compensation, charitable contributions, entertainment, political advocacy (lobbying), and fund-raising. According to Price Waterhouse's workpapers, SEMATECH classified and segregated unallowable costs from allowable costs in its accounting records to ensure proper matching and disclosed in its financial statements that unallowable costs were excluded.

According to Price Waterhouse's working papers, SEMATECH properly excluded approximately \$779,000 of unallowable costs from matching government funds. SEMATECH's 1988 financial statements did not disclose the amount or nature of these unallowable costs, the most significant of which were \$500,000 for interest-free officer loans that were provided

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as employment incentives and about \$198,000 classified as "consulting fees-legal" that were determined to be lobbying costs. Price Waterhouse did not take exception to SEMATECH's financial statement disclosure.

Although SEMATECH is not a publicly-held corporation and, therefore, is not required to disclose terms of loans to its officers, we believe that disclosure of such items in the financial statements is appropriate. While no public monies were involved in these unallowable items, substantial federal funds were involved in support of other SEMATECH activities. SEMATECH's Vice President for Finance has agreed to disclose this information in a footnote to the financial statements for 1989 and future years.

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## Interest Reimbursed

SEMATECH's 1988 financial statements (1) disclosed that SEMATECH is required to reimburse the U.S. Treasury on a quarterly basis for the interest earned on grant funds received in advance of qualifying expenditures and (2) recorded interest income net of such amounts. SEMATECH considered the amount of reimbursed interest immaterial for specific disclosure in the 1988 financial statements, and Price Waterhouse did not take exception to this disclosure.

In 1988, \$544,000 of interest was earned and was later reimbursed to the U.S. Treasury. SEMATECH's Vice President for Finance has agreed to disclose this information in a footnote to the financial statements for 1989 and future years.

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## Recognition of State Contribution

SEMATECH's 1988 financial statements disclosed in footnotes its 20-year lease with the University of Texas for property and facilities, but no value was ascribed for the property, facilities, and furnishings that the University contributed. Price Waterhouse did not take exception to this disclosure.

In a letter dated November 28, 1989, SEMATECH's Vice President for Finance stated that the financial statements for 1989 and subsequent years will recognize the University of Texas' contribution of \$34.3 million over 20 years, or \$1.7 million annually. We agree that it is appropriate to begin amortizing the University's contribution in 1989 because the fabrication facility's certificate of substantial occupancy was issued and the lease became effective in January 1989. However, we calculated the value of the University of Texas' contribution, based on the costs that the University incurred, to be \$48.2 million. SEMATECH's valuation of the

University's contribution is lower than ours because it did not include (1) \$3.7 million for bond issuance and debt service because these funds did not provide any direct improvement to the facilities or operation of SEMATECH and (2) \$10.2 million for land and existing facilities because the University has retained actual ownership and full value of this real property. We believe that SEMATECH should include these costs in its valuation of the University of Texas' contribution because the costs were incurred to attract SEMATECH to Austin.

SEMATECH plans to amortize the University's contribution on a straight-line basis over its 20-year operating lease with the University. We believe that it is appropriate for SEMATECH to amortize the University's contribution of about \$37.6 million for land and the structural components of the facilities on a straight-line basis over the 20-year lease beginning in January 1989. We believe, however, that at least \$10.5 million, including \$8.8 million of specialized equipment for the fabrication facility and \$1.7 million of furniture and office equipment for the office building, should be amortized over 5 years rather than 20 years. SEMATECH is using a 5-year period to depreciate similar assets that it had purchased, and this is the approximate useful life of such equipment and furnishings. In addition, it is unclear that either member companies or the federal government will support SEMATECH for the full 20-year lease period. Member companies have agreed to participate in SEMATECH through its first 5 years and will annually review continuing participation, and federal participation was initially proposed for 5 years. SEMATECH can terminate the lease should the consortium be dissolved. If dissolution occurs after federal funding for SEMATECH ceases, the property and buildings, including the portion purchased with federal and member matching funds, would revert to the University of Texas under the terms of the lease.

Adding the University of Texas' contribution to the federal share may significantly affect SEMATECH's funding in 1989 and in the future years that it receives substantial federal funds. The University's contribution from 1989 through 1993 would be valued at \$4 million annually if \$37.6 million is amortized over 20 years and \$10.5 million is amortized over 5 years on a straight-line basis. From 1994 through the end of the lease, the University's contribution would drop to \$1.9 million annually. To comply with the requirement that member companies provide at least 50 percent of its funding, SEMATECH will have to either reduce the federal contribution each year or obtain additional member-company contributions.

## Agency Comments

A draft of this report was sent to the Department of Defense and SEMATECH for comment. DOD did not provide written comments; however, DOD officials we met with suggested that the report's discussion of the reversion of the property and buildings used by SEMATECH to the University of Texas should be clarified, noting that this would be the case only if the SEMATECH consortium is dissolved after federal funding of SEMATECH ceases. We incorporated this change.

SEMATECH, which coordinated its response with Price Waterhouse, provided two overall comments to the report (see app. I). First, SEMATECH stated that our concern about the disclosure of the amount of restricted federal contributions, unallowable costs, and interest on federal fund advances in the financial statements represented a technical accounting issue. We agree that our concern does not affect SEMATECH's compliance with generally accepted accounting principles. However, we continue to believe that because the federal government and the State of Texas are contributing almost 50 percent of SEMATECH's annual operating budget, full disclosure of this kind of information in the financial statements is appropriate.

Secondly, SEMATECH reiterated its position on the accounting treatment for the University of Texas' contribution and stated that it is consistent with the terms and legislative history of SEMATECH's enabling legislation. However, SEMATECH's enabling legislation does not specify the manner in which the State of Texas' contribution is to be calculated. We continue to believe that the value of the University's contribution should be \$48.2 million, rather than \$34.3 million because (1) capitalizing \$3.7 million in interest costs incurred during construction as part of the University's total acquisition cost is consistent with Financial Accounting Standards Board Statement No. 34, "Capitalization of Interest Cost" and (2) the University incurred \$10.2 million for land and existing facilities specifically for SEMATECH and is providing their exclusive use to SEMATECH under the 20-year lease.

SEMATECH also suggested various changes to improve the presentation and technical accuracy of the draft report. For example, SEMATECH pointed out that it depreciates, rather than amortizes, assets and noted that the State of Texas—through the University of Texas—invested, rather than contributed, \$48.2 million to attract SEMATECH. We incorporated these changes as appropriate.



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## Scope and Methodology

This report is our first in response to the National Defense Authorization Act's requirement that we review the annual audits of SEMATECH's financial statements. We conducted our review of the Price Waterhouse auditors' work from April 1989 to August 1989 in accordance with generally accepted government auditing standards. To determine the accuracy and completeness of this work, we

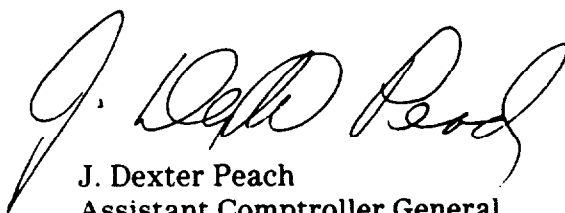
- reviewed the auditors' approach and planning of the audit;
- evaluated the qualifications and independence of the audit staff;
- reviewed the financial statements and auditors' reports to evaluate compliance with generally accepted accounting principles and generally accepted government auditing standards; and
- reviewed the auditors' working papers to determine (1) the nature, timing, and extent of audit work performed; (2) the extent of audit quality control methods the auditors used; (3) whether a study and evaluation was conducted of SEMATECH's internal accounting controls; (4) whether the auditors tested transactions for compliance with applicable laws and regulations; and (5) whether evidence in the working papers supported the auditors' opinion on the financial statements and internal accounting control and compliance reports.

This report does not include the 1988 financial statements because they contain proprietary information.

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As agreed with your offices, we are sending copies of this report to the Secretary of Defense, the Chairman of the Board of Directors of SEMATECH, Price Waterhouse, and other interested parties. Copies also will be made available to others upon request.

This report was prepared under the direction of John M. Ols, Jr., Director, who may be contacted at (202) 275-5525. Other major contributors to this report are listed in appendix II.



J. Dexter Peach  
Assistant Comptroller General



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Major Contributors to This Report		

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## Abbreviations

DARPA	Defense Advanced Research Projects Agency
DOD	Department of Defense
GAO	General Accounting Office
SEMATECH	SEmiconductor MAufacturing TECHnology



# Comments From SEMATECH

Note: GAO comments supplementing those in the report text appear at the end of this appendix.

# SEMATECH

INNOVATION FOR AMERICA'S FUTURE

January 5, 1990

Mr. John Ols  
Director of Housing and Community Development Issues  
United States General Accounting Office  
441 G Street NW (Room 4073)  
Washington, DC 20548

Dear Mr. Ols:

We appreciate the opportunity to comment on the draft GAO report, dated December 22, 1989, which reviews the accuracy and completeness of the audit performed by Price Waterhouse on SEMATECH's 1988 financial statements.

SEMATECH is a private, non-profit corporation dedicated to the highest standards of sound management and financial accountability. We have cooperated fully with our independent certified public accountant, Price Waterhouse, so that it could reach an opinion that SEMATECH's financial statements and internal accounting controls conform with generally accepted accounting principles.

We are pleased that the draft GAO report does not question the Price Waterhouse opinion nor find any deficiencies with the Price Waterhouse audit. We, like you, believe they have done a thorough and professional job. We are further pleased that the GAO found the SEMATECH 1988 financial statements to be complete and accurate and the systems of internal controls to be appropriate and dependable.

The draft GAO report does offer two principal comments, both of which are based on technical accounting differences. First, the report suggests certain additional financial disclosures would be appropriate. Second, the report contends that a different amount should be used for the amortized value of the contribution to SEMATECH from the University of Texas. We have addressed each of these comments in the following paragraphs and have also attached a list of suggested wording changes to make the report factually correct.

#### FOOTNOTE DISCLOSURE IN FUTURE FINANCIAL STATEMENTS

SEMATECH is committed to making full and accurate accounting disclosures in its financial statements, consistent with industry standards and practices. Further, all interested parties - investors and the federal government - have broad access to SEMATECH's financial information, despite its sensitivity or proprietary nature.

The issue raised by the GAO questions is a technical one of what accounting information is appropriate for inclusion in the financial statements. It is not a question of whether SEMATECH is willing to disclose financial information to

See comment 1.

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Appendix I  
Comments From SEMATECH

Mr. John Ols  
January 5, 1990  
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appropriate review bodies. Our books were completely open to the GAO, and the GAO did not identify any concerns regarding the availability, appropriateness or accuracy of SEMATECH financial information.

SEMATECH's 1988 financial statements were developed in full compliance with the strict standards of Generally Accepted Accounting Principles (GAAP), which include well-established guidelines for whether any individual item is material to the financial statements taken as a whole. Considerable time and effort were spent evaluating and documenting the appropriate accounting treatment and the appropriate financial statement disclosure for each of the items questioned by the GAO. Ultimately, SEMATECH and Price Waterhouse concluded that all items which should be disclosed in the financial statements were disclosed, and were disclosed properly in accordance with GAAP.

**ACCOUNTING TREATMENT OF THE UNIVERSITY OF TEXAS CONTRIBUTION**

SEMATECH has explained to the GAO in considerable detail its accounting treatment of the contribution by the University of Texas. This treatment is based upon recognizing the funds which were made available to SEMATECH by the University, the market value of the property lease, and the fact that the University retained full title to the land and property.

We believe this accounting treatment is a reasonable and straightforward approach which meets the tests of generally accepted accounting principles and, perhaps even more importantly, is consistent with the terms and legislative history of the SEMATECH enabling statute. Further, this treatment has been acceptable to both our investors and the Department of Defense.

While it is certainly possible for accountants to differ on these issues, we believe the SEMATECH approach, as endorsed by Price Waterhouse, is more appropriate and consistent with standard accounting principles.

We appreciate the courtesy and cooperation of GAO officials in conducting their in-depth review over the past 10 months. Their suggestions have been helpful and have contributed constructively to the presentation of SEMATECH's financial statements, and we look forward to continuing to work with you in the future.

Sincerely,



Robert M. Noyce  
President and Chief Executive Officer

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**Appendix I**  
**Comments From SEMATECH**

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The following are GAO's comments on SEMATECH's letter dated January 5, 1990.

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**GAO Comments**

1. We have incorporated SEMATECH's suggested changes as appropriate.

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# Major Contributors to This Report

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