



National Science Foundation  
SBIR/STTR Program  
Accounting Workshop  
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## Notice to Reader

The information in this presentation is intended to assist organizations in their application for Phase II funding under the National Science Foundation's Small Business Innovation Research (SBIR/STTR) program.

The information provided in this presentation is a summary of certain requirements that apply to the Phase II award.

Readers should refer to the NSF's website and other communications from the NSF for all requirements which apply to the Phase II award.



## Accounting workshop

Objective of this session:

- To make you aware of the NSF's requirements in the accounting/finance area, and give you the best chance of being funded under the Phase II program
- Two risks:
  - Not being funded at all in Phase II
  - Being funded less than max available (\$500,000)



## Four items to remember

1. The NSF wants to see you funded.
2. NSF's requirements are published on the NSF website – read these and be careful to comply with them.
3. Phase II funding is not provided if there is an elevated risk of bankruptcy, or going out of business – NSF conducts financial capability review of every company to support this assessment.
4. Specific rules and policies apply to indirect costs  
Subject to Pre-award Audit (if >safe rate)  
Rules are frequently misapplied



## Accounting and administrative review

Purpose – to ensure that prospective Phase II grantees are maintaining adequate accounting systems, that they have adequate financial capability, and that proposed expenditures with Phase II research funds meet NSF requirements.

There are 3 parts to the review:

- Review of Accounting and Timekeeping Systems
- Review of Financial Capability
- Review of Phase II Budget



## General process for review

The review is performed by NSF employees.

Prospective Phase II grantees submit information listed on the NSF's website.

The information is sent to an external CPA reviewer who performs the following functions:

- Performs initial review of information submitted
- Ensures information is complete and responsive to NSF requirements
- Assists with assessment of financial capability and financial viability

NSF personnel are solely responsible for all funding decisions

## General process for review

The NSF is reviewing 50-60+ requests for Phase II funding.

- Ensure you have read the latest requirements on the NSF Phase II website at:
  - Overall Requirements <http://www.nsf.gov/bfa/dias/caar/sbirrev.jsp>
  - Indirect Cost Rates and Proposal <http://www.nsf.gov/bfa/dias/caar/docs/fdcsubmissions.pdf>
- Get it right the first time!

## Review of Accounting Systems

- Purpose – to ensure that Phase II grantees are maintaining adequate accounting systems to account for government funds

Requirement is in place to reduce possible of fraud, waste and abuse of funds.

## Requirements for Accounting Systems

- The NSF's requirements for accounting systems to be maintained are listed in the Financial Management Systems Questionnaire. (located in the Prospective New Awardee Guide)
- The NSF wants to see a functioning bookkeeping system. i.e.
  - Books of account sufficient to prepare complete and accurate financial reports (e.g. financial statements in accordance with GAAP or acceptable basis of accounting)
  - Accounting system has ability to identify costs incurred:
    - by project/grant
    - as direct, indirect or unallowable (if indirect cost rate above 50% is requested)
  - Maintenance of adequate source documentation



## Review of Accounting Systems

- Information submitted to support NSF's review of your accounting system:
  - Financial Management Systems Questionnaire
  - Historical financial statements
  - Copies of audit reports (external audit and DCAA)
  - Other, if needed
- Two other comments:
  - Quickbooks and other simple accounting packages are acceptable
  - Limited remediation is possible; if it can be done on a timely basis

## Review of Accounting Systems

Basic bookkeeping errors/oversights that have prevented some companies from receiving Phase II funding

- Inability to reconcile retained earnings and share capital accounts (\*\*major\*\* red flag)
- Negative asset balances, obvious errors in preparation and presentation
- Lack of account reconciliations

### Why are these important?

(\*\*) Because they raise questions as the integrity of your accounting system/ and can prevent you from being funded

## Importance of accounting systems to a small business

- Importance of accounting systems to a growing business
  - Control over cash receipts/disbursements
  - Historical financial information for mgmt/investors
  - Preparation for tax returns
  - Provides needed info for forecasting and budgeting
  - Needed to receive Federal awards

## Requirements for Timekeeping System

- Companies are required to maintain a timekeeping system which tracks employees' efforts on Federal projects
- Can use either a manual (paper-based) timesheets or an automated system
- Become familiar with the time and effort reporting requirements related to Federal awards
  - [See link on NSF's website for the requirements which apply to system for recording employees' time.](#)

## Accounting systems review

### Common problems that are evident in review of accounting systems:

- Inadequate systems maintained
- Incomplete Financial Management Systems Questionnaire - must answer every question.

## Common pitfalls and problems

### Historical financial statements

- Retained earnings don't balance
- No rollforward schedule provided for the capital accounts
- Obvious presentation errors in financial statements

### Possible result:

- the company's accounting systems are deemed inadequate and/or financial capability review cannot be completed leading to:

Request for full-scope audit

Phase II funding being declined !!

Integrity of accounting system and accuracy of financial statements is very important.

## Accounting systems review

### Recommendation for smaller companies

Hire a CPA and have them read your financial statements prior to submission

- Services available from CPAs typically include:
  - Audit
  - Review
  - Compilation
  - 2-3 hour discussion

## Accounting systems review

Questions or comments on the NSF's requirements for accounting and timekeeping systems?

Any specific questions or situations that you would like us to briefly address?

## NSF Phase I Grantee Conference

### Financial capability review

## Financial Capability Review

The NSF performs a financial capability review to obtain reasonable assurance that companies provided with Phase II funding:

- Are financially stable,
- Have, or will have, sufficient financial resources to complete their research program,
- Do not expose the government to fraud, waste or misuse of Federal funds.

Reason: Government does not want to provide grant funding to companies that have significant possibility of bankruptcy or ceasing operations.

## Financial Capability Review

\*\*\*\* Very important assessment \*\*\*\* – companies have been declined Phase II funding when the NSF concluded there was an elevated risk of bankruptcy, or going out of business.

- Assessment is particularly important for companies which have limited cash on hand, and/or are in financial difficulty

## How does the NSF assess financial capability?

□ The NSF follows a two-step process:

- The NSF reviews a company's financial statements and other information for Indications of Financial Difficulty
- If significant indications of financial difficulty are found in the financial statements, then the NSF requests other information (such as a cash flow projection) to:
  - Better understand your financial capability (i.e. financial position and future prospects)
  - Identify other information and events that suggest a company is stronger than indicated in the company's financial statements.
  - Understand management's plans for improving the company's financial position

## Overview of Financial Capability Review

□ There is a focus on the company's financial statements:

- Company's financial statements and other information are reviewed for indications of financial difficulty such as the following:

## Indications of Financial Difficulty

### On Balance Sheet

- Lack of shareholder investment (negative shareholders' equity)
- Excessive long-term debt in comparison to permanent equity
- Deficiency in working capital or liquid funds, as indicated in the financial statements by:
  - No cash in bank
  - Current ratio less than \_\_\_ to 1
  - Quick ratio less than \_\_\_ to 1
- Large bank overdrafts
- Loans coming due for which no obvious source of money is available for repayment
- Reliance on credit card debt for funding

## Example balance sheet

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- ## Indications of Financial Difficulty
- ### On Income Statement
- Recurring operating losses
  - Deteriorating revenues, margins or profitability - i.e. negative trends evident
  - High level of interest expense, in comparison to operating income
  - Other

- ## Indications of Financial Difficulty
- ### From other information reviewed
- Cash flow statement indicating significant cash being used in operating activities over a number of years
  - Qualified auditor's opinion (for e.g. – going concern qualification)
  - "Cash Burn Rate" that suggests that current cash on hand is not sufficient to fund future operations
  - Other

- ## Financial capability reviews
- What information will be requested by the NSF if there are indications of financial difficulty in the financial statements? Potentially....
- A cash flow forecast or budget for the two-year period during which Phase II research is underway;
  - Information on the company's contracts, backlog, customers and confirmed sources of revenue;
  - A description of the new loans and capital/equity investments expected in future, if any
  - Management's plans to address the financial viability issue that is evident from the company's financial statements.
  - Other, depending on circumstances

- ## Overview of process
- Other information and events could include:
    - Additional equity investments to be made
    - Contracts with customers that have been signed, but are not yet in effect.
    - Loans to be converted into equity
    - The existence of loans or financing facilities that are not reflected on the balance sheet
    - Grants awarded but not yet received (excluding Phase II grant)
- > FOCUS ON PROSPECTIVE INFORMATION  
 ---> INFORMATION NEEDS TO BE SUPPORTED WITH AGREEMENTS/DOCUMENTS/ETC.  
 -> VOLUNTEER THIS INFORMATION WHEREVER POSSIBLE.

- ## Financial support letter
- When financial viability depends on loans, advances, and credit facilities provided by major shareholders or investors, NSF may ask for **financial support letter(s)** confirming:
    - Their intention to continue providing the loan or credit to the company for the 2-year period Phase II research is underway and indicate the limits of that support
    - That shareholder loans or advances that are outstanding as of the date of the letter and in the amount of \$\_\_\_\_\_ will not be repaid during the 2-years.

## The assessment process

### How does the NSF form its conclusion on financial capability?

- 2-year time horizon is used –an organization should be able to demonstrate it has, or likely will have, sufficient resources to stay in business for the 2-year period during Phase II research is underway
- Conclusions reached:
  - Are based on an evaluation of information in aggregate
  - Depend on individual facts and circumstances of each company
- NSF does not rely solely on financial ratios, statistics to make its judgment on financial capability – all information is considered
- Your company has ability to submit information to support its financial capability

## Financial capability review

- What can companies do to improve their financial capability, if there are indicators of financial difficulty?
  - Extend repayment dates on shareholder loans
  - Provide more detail on expected revenues and customers (i.e. future prospects)
  - Provide a plan for controlling or reducing costs
  - Obtain additional equity investment
  - Provide financial support letter (s)

\*\*\* WANT TO BE AHEAD OF THE CURVE ON THIS ONE \*\*\*

## Documentation to be submitted

What information do companies submit to support the NSF's review of its financial capability?

See NSF website

Required information includes.....

## Documentation submitted in support of Financial Capability review

- Year-End Financial Statements for the two most recently completed years
  - Balance Sheet
  - Income Statement (P/L – Profit and Loss)
  - Cash flow statement
  - Simple (or summarized) Notes to Financial Statements
  - Prepared in accordance with GAAP or another acceptable basis of accounting
- Interim Financial Statements
  - If most recent year-end statement is >180 days old
  - If company's financial position has significantly changed from most recent year-end statement

## Required Documentation

- Notes to financial statements
  - The company should provide a brief description of the basis of accounting used to prepare the year-end and interim financial statements.
  - The NSF wants to see a statement from the company's management or its external CPA accountant indicating whether or not the financial statements were prepared in accordance to Generally Accepted Accounting Principles (GAAP).
    - If not in accordance with GAAP, include a description of the major adjustments needed to present the submitted statements in accordance with GAAP. (description only; quantification not needed)

## Required Documentation

All applicants

- Submit your auditor's or accountant's report - if you have one !!
  - Compilation report
  - Review report
  - Audit opinion
- Details of Debt Obligations – Schedule of all loans and long-term debt obligations outstanding
  - Name to whom the balance is owed
  - Balance outstanding at latest balance sheet date
  - Interest rate and interest payment provisions
  - Loan repayment date (s)
  - Other significant terms of the debt (convertibility, etc.)

## Required Documentation

All applicants

- Tax Returns
  - If the company's year-end financial statements are unaudited, provide a copy of the company's tax return for its most recent fiscal year – info must reconcile !!
- Other Information, if important to explaining the financial capability of company
  - Details of any additional investments expected from shareholders
  - New contracts or grants received
  - Other financial developments of the company that are relevant to understanding its financial capability and future prospects

## Accounting principals to be used for financial statements

- Applicants are encouraged to prepare and submit financial statements in accordance with Generally Accepted Accounting Principles (GAAP)

## Required Documentation

- Applicants MAY alternatively use:
  - Accrual basis
  - Cash basis
  - Income tax basis
- IF the Company provides:
  - A description of the basis of accounting and the accounting principles used to prepare the financial statements (i.e Notes to Financial Statements to explain the nature of accounts presented)
  - A listing and description of the major adjustments needed to present the submitted statements in accordance with GAAP (description only; quantification not needed)

## Financial capability review

Example financial capability review

Company A

Please take 5 mins to look at an example financial capability review for Company A

## Financial capability review

Example financial capability review

Company B

Please take 5 mins to look at an example financial capability review for Company B

## Financial capability review

Example financial capability review

Company C

Please take 5 mins to look at an example financial capability review for Company C

## Financial capability review

Questions?

Comments?

Any specific questions or situations that you would like us to briefly address?

## National Science Foundation

The Phase II Budget Review process

## SBIR Budget Review

The Phase II Budget review:

- Performed by NSF staff on all requests for Phase II funding
- Very important element of the accounting and administrative review
  - result determines the level of funding provided
- The budget review and all funding recommendations are made by NSF personnel (and not your CPA reviewer)
- The NSF publishes specific guidance on the documentation that must be submitted to support each proposed expenditure - <http://www.nsf.gov/bfa/dias/caar/sbirrev.jsp>

## SBIR Budget Review

Two important comments:

1. The CPA reviewer does not provide any budget advice – their role is only to review the amount requested, review supporting documentation for each category, and request clarifications where necessary.
2. The process does not generally allow Phase II budgets to be resubmitted if errors are found, or the company wishes to spend its money differently.

## Budget Reviews

How does budget review work?

- → companies submit a summary of the expected expenditures using Phase II funds

Expenditures are the incremental costs and outlays for salaries, equipment, materials and services and other approved expenditures that will be used and consumed by the company specifically for Phase II research.

## Budget Reviews

The expenditures are divided into two types:

- Direct expenditures
  - Direct salaries and wages
  - Fringe benefits (e.g. health ins., holiday, 401(k), FUTA, SUTA)
  - Materials & supplies
  - Equipment purchases
  - Consultant fees and expenses
  - Travel
  - Other
- Indirect Costs

The budget can also include:

- a subaward to a university or other organization
- allowable fee (max of 7% of direct and indirect costs)

Phase II budget is a cost-based budget (cost + fee)

## Documentation

- What documentation needs to be provided to support each type of expenditure?

## Documentation requirements

Direct costs:

The required information for each category of expense can be found on NSF website at:

<http://www.nsf.gov/bfa/dias/caar/sbirrev.jsp>

More information will be provided at the mandatory session tomorrow

## Indirect Costs

### □ Safe Rate

No documentation required to support budgeted indirect costs plus fringe with an effective rate of 50% or less of direct salaries and wages (S&W)

### □ Indirect Cost Proposal

- Indirect costs greater than 50% of S&W must be substantiated by an indirect rate proposal for the most recently completed fiscal year expenses
- Proposal must clearly reflect total expenses per financial statements and show a reconciliation

### □ Maximum

Indirect costs plus fringe limited to 150% of S&W

## Overview of indirect costs

### What are indirect costs?

A cost that is not directly related to the production of a specific good or service but incurred to support a variety of activities underway. For example, the cost of:

- Maintaining your accounting department
- Renting offices and facilities
- Utilities
- General and admin costs
- Other

These costs are typically allocated to the cost of contracts, and the NSF allows you to include a portion of these costs in your Phase II research budget ("Indirect Costs")

## Overview of indirect costs

What is the NSF's approach to handling indirect costs on Phase II research?

Safe rate – up to 50% salaries/wages

Indirect Cost Proposal: 50% - 150% salaries and wages

## NSF's rules for indirect cost reimbursements greater than the 50% safe rate

- General - calculation is done in accordance with Federal Acquisition Regulation (FARs) rules for the allocation of indirect costs to contracts
- For example - FAR 31.203 Indirect costs  
[https://www.acquisition.gov/far/current/html/Subpart%2031\\_2.html#wp1095599](https://www.acquisition.gov/far/current/html/Subpart%2031_2.html#wp1095599)

## NSF's rules for indirect cost rate calculations

For SBIR Phase II awards - the NSF has additional restrictions on costs included in the indirect cost pools

- Indirect cost pools cannot contain the following types of costs:
  - Patent and patent related expenses
  - Sales and Marketing
  - Business Development
  - Manufacturing and production
  - IR&D costs (internal research and development)

See also list of unallowable expenses at \_\_\_\_\_ [ref in FARS] which cannot be charged to Federal government contracts  
Examples:

- Interest expense
- Federal income tax expense
- Entertainment
- Other

## NSF's rules for indirect cost rate calculations

### Limitation on indirect salaries

- Indirect salaries and wages in excess of 35% total salaries and wages, less paid time off, are considered unreasonable and is reclassified to direct costs

□ See example calculation

## NSF's rules for indirect cost rate calculations

### NSF specific rules

- Subcontract expenses excluded from the allocation base; (i.e. not part of direct costs) → Indirect rates will not be applied to subaward amounts.
- Equipment purchases are excluded from allocation base → Indirect rates will not be applied to equipment.

## NSF's rules for indirect cost rate calculations

### NSF specific rules

- The following expenses are included in the allocation base and absorb their share of expenses:
    - Sales/marketing
    - Business development
    - Manufacturing/production
    - IR&D
- i.e. they are treated as Final Cost Objectives

## NSF's rules for indirect cost rate calculations

### NSF specific rules

- Facilities Capital Cost of Money (FCCM) will not be funded as either a direct or indirect cost

## Indirect Costs

### □ Reconciliation (\*\*\*\*)

- The indirect cost proposal Must CLEARLY reflect financial statement information and be accompanied by a reconciliation to total expenses in the financial statements
- NSF staff won't review an indirect cost proposal without this reconciliation; and will recommend funding at the 50% safe rate if it is not provided

## NSF's rules for indirect cost rate calculations

What happens if past indirect expenses are not reflective of amounts in future?

--> Companies may submit a budgeted indirect rate for the upcoming year provided two conditions are met:

- The actual indirect rate for last year is calculated and submitted; (together with a reconciliation) and
- Budgeted pool expenses are supported by (a) actual cost data or (b) evidence that a future obligation will be in place and supplier quotation

## NSF's rules for indirect cost rate calculations

Example indirect cost proposal : Sunny Graphics

Please spend 5 minutes looking at the example indirect rate proposal for Sunny Graphics

## NSF's rules for indirect cost rate calculations

Example indirect cost proposal - Idc Sample Company

Please spend 10 minutes looking at the example indirect rate proposal for IDC Sample company.

Calculate the supported rate for indirect costs; using the worksheet on page \_\_\_\_.

## Common pitfalls and problems

- Indirect cost proposal submissions
  - Reconciliation to financial statements not provided
  - NSF rules for IR&D, sales/marketing, patent and other costs are not followed
  - Budgeted pool expenses are not supported
  - Company submit using DCAA approved rates (or ICE model, without adjustments)

Possible result:

- Funding for indirect costs is less than that requested; and/or
- NSF decision to fund indirect costs at the 50% safe rate

## Indirect cost proposals

Questions?

Comments?

## SBIR Budget Review

Common pitfalls and problems noted in other expenditure categories

- Direct salaries and wages
- Materials and supplies
- Equipment
- Consulting services
- Subawards

## Direct salaries and wages

- Current Employees – current payroll register or pay stub (if salary > \$50,000)
- Yet-to-be-hired Employees
  - If named, provide employment agreement
  - If unknown, provide explanation of rate determination and supporting documents
- Bureau of Labor Statistics Salary Survey (DOL/BLS salary survey)
  - Salaries generally limited to mean annual salaries listed in the Occupational Employment Statistics (OES)  
<http://data.bls.gov:8080/oes/search.jsp>

## Standard Occupational Classifications - Examples

- 11-9041 Engineering Managers  
Plan, direct, or coordinate activities in such fields as architecture and engineering or research and development in these fields. Exclude "Natural Sciences Managers"
- 11-9121 Natural Sciences Managers  
Plan, direct, or coordinate activities in such fields as life sciences, physical sciences, mathematics, statistics, and research and development in these fields. Exclude "Engineering Managers" and "Computer and Information Systems Managers"

## Common pitfalls and problems

- Salaries/wages
  - Requested salary is not supported by DOL/BLS surveys;
  - External charge-out rate is used (e.g. \$100 per hour) offered; instead of actual salary cost to company
  - CAL months in Fastlane budget not supported by budget justification

Possible result – funding provided is less than that requested

## Materials and Supplies

- Itemized list of items to be purchased including
  - Item identification / brief description
  - Vendor identification
  - Quantity to be purchased
  - Unit Cost
  - Extended Amount (*total cost for entire budget*)
- Provide supplier quotation or other appropriate documentation for items with an extended amount over \$5,000

## Materials and supplies (con't)

Prototype manufacturing:

Can be complicated if a company is building prototypes of a product; and needs to complete engineering design work first.

- Include expected Bill of Materials (BOM)
- If needed, indicate best estimates and ranges of quantities to be purchases

## Equipment

- Defined as Nonexpendable, tangible personal property with useful life of more than one year
- Documentation required to support purchases of equipment for Phase II research:
  - Three sources: Written quotation and/or copies of pricing information from catalogs, trade journals, etc.
  - Single Source: provide sole source justification (explanation of uniqueness of equipment and why this source is the only supplier). Include written quotation.

## Consultant Services

- Provide the following information to support proposed payments to consultants:
  - A description of relationship between consultant and the organization
  - Selection process (competitive or sole source)
  - For each consultant provide a copy of the consulting agreement that describes:
    - Services to be provided
    - Period of performance and consultant's availability
    - Qualifications of the consultant to perform the work
    - Rate of Pay (not to exceed \$\_\_\_\_/8-hour day ~ \$\_\_\_\_/hour)

## Subaward amounts

- Provide the following information to support proposed payments to subawardees:
  - Relationship between the awardee and the subawardee
  - Manner in which the subawardee budget was solicited (competitive or sole source)
  - Type of award contemplated (fixed price or cost reimbursement)
  - Analysis supporting reasonableness of subaward budget
- Subawards to universities:
  - Provide a statement from the university indicating that fringe and indirect costs do not contain tuition reimbursement
- Subawards to commercial organizations:
  - an analysis to support that the subaward budgeted amount is reasonable

## Total Award and Fee

- The SBIR/STTR Phase II fixed-price grants typically will not exceed **\$500,000** per award
  
- NSF allows a reasonable fees for profit not to exceed seven percent of total direct and indirect costs

## Factors for success and how to get funded the full amount available

1. Read carefully the NSF's current documentation requirements.
2. Include all requested information on first submission
3. Respond timely to requests for additional information
4. Perform a financial capability self-assessment, and address issues (if necessary) prior to submission of information to NSF
5. Address the common pitfalls and issues which can affect funding (see pages \_\_\_\_ to \_\_\_\_ of the participant materials) and ensure you don't have any!
6. For Indirect Cost Proposal (IDCP) requesting a rate > 50% → take extra care as it is likely your accountant hasn't done one in accordance with NSF's specific policies

## Reference sources for additional information

- Overall Phase II Requirements  
<http://www.nsf.gov/bfa/dias/caar/sbirrev.jsp>
  
- Indirect Cost Rates and Proposal  
<http://www.nsf.gov/bfa/dias/caar/docs/idcsubmissions.pdf>
  
- Your NSF contact – For additional questions

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