

Personal Financial Statements



**The Center for
Financial Studies**
Southern New Hampshire University

Acknowledgement

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Executive Summary

The purpose of this module is to introduce net worth statements, income statements, budgets and emergency funds. The module can be divided into five related segments:

1. An overview of financial statements and the purpose of an emergency fund
2. Creating a net worth statement
3. Creating an income statement
4. Developing a budget (assigned as homework)
5. Exploring the effect of contribution amount, interest rate, etc. on the build up of an emergency fund

Segment 1 discusses how a net worth statement, income statement and budget are created and how they may be used to manage one's personal finances. Segment 1 also includes a brief discussion of the importance of having an emergency fund to cushion the effect of a financial calamity that would otherwise derail your budget. In Segments 2 and 3, students create a net worth statement and an income statement, respectively, for John Smith using the JOHN SMITH CASE STUDY handout provided. In Segment 4, students create a budget for John Smith. Finally, Segment 5 is an internet exercise in which students explore the impact of contributions, interest rates, etc. on the accumulation of an emergency fund. Much of the discussion below is based on Chapter 3 of *Personal Finance: An Integrated Approach 7th ed.*, by Bernard J. Winger and Ralph R. Frasca.

Educational Motivation

- To understand the uses of a net worth statement, income statement and budget
- To become comfortable with calculating net worth and preparing personal financial statements
- To appreciate the role of an emergency fund in protecting one's financial plan

Overview of Material

Key Terminology:

Asset: Item of value.

Budget: Financial statement that forecasts income and expenses for a future period of time.

Current liabilities: Debts that must be paid within a short time, usually less than one year.

Fixed expense: An expense that does not fluctuate month to month. Examples include rent, car payment and insurance premiums.

Income statement: Financial statement that summarizes cash receipts and payments for a given past period of time.

Insolvency: The inability to pay debts when they are due because the value of the liabilities exceeds the value of the assets or because of insufficient cash flow.

Liquid assets: Cash and other items of value that are easily converted to cash without loss of value.

Long-term liabilities: Debts that do not have to be paid until more than one year from the current time.

Net worth: The difference between total assets and total liabilities.

Net worth statement: A financial statement that reports what an individual or a family owns and owes; sometimes called a balance sheet.

Variable expense: An expense that may change month to month. Examples include gas for your car, groceries and entertainment expense.

Background Information

The sections **Financial goals**, **Net worth statement**, **Income statement**, **Budget** and **Emergency fund**, covered below, provide the basis for the discussion in Segment 1. Points that the facilitator may address:

- The importance of setting financial goals
- What information should be gathered in preparation for creating a net worth statement, an income statement and a budget
- Where the aforementioned information may be found
- How the information contained in these financial statements may be useful
- What level of emergency savings is appropriate
- Possible outcomes that may result from having insufficient emergency funds

Financial goals

A financial goal is specific regarding amount of money needed and timeframe. A goal may be as straightforward as being sure of having enough cash to pay the rent at the first of the month or as complex as building a large estate to leave to one's heirs. For example, one of John Smith's goals as presented in the JOHN SMITH CASE STUDY included in this module may be to increase the balance of his savings account to \$1,000, an increase of \$330, by the end of 2006. The purpose of setting financial goals is to provide a framework for making deliberate financial decisions, allowing you to be in control of your finances. Financial statements such as a net worth statement and income statement may be helpful in tracking your progress toward financial goals. A budget provides a plan for obtaining your financial goals.

Net worth statement

A net worth statement reports the market value of your assets and the balance owed on your debts at a MOMENT in time (compare to an income statement and/or budget). For example, you might create a net worth statement for yourself as of December 31, 2005. The difference between the total value of your assets and the total balance of your debt is your net worth.

One way to categorize assets is according to their primary purpose: liquid, lifestyle and investment. Liabilities can be categorized according to their terms: current and long-term.

Liquid assets are those items of value that are easily converted to cash without loss of value. Liquid assets include cash, checking and savings accounts balances, certificates of deposit (CDs), money market account balances, etc.

Lifestyle assets are those that you use for your daily living activities. Lifestyle assets include your home if you own it (vs. renting), your car if you bought it (vs. leasing), and your personal effects.

Investment assets are those that you own in anticipation of appreciation in value and/or of receiving income as a result of ownership. Examples include stocks, bonds, mutual funds and collectibles. Investment assets can be converted to cash but may not necessarily be converted to cash without loss. This is discussed further in the **Emergency fund** section.

Current liabilities are those debts that you expect to pay within one year. Examples of current liabilities include the rent for the next 12 months per your lease and utility bills that you have received but have not yet paid.

Long-term liabilities are those debts that are payable in more than one year. Examples of long-term liabilities include the balances of loans with a term of more than 12 months.

The sum of all three types of assets (liquid, lifestyle and investment) is total assets. The sum of both types of liabilities (current and long-term) is total liabilities. As stated above, the formula for net worth is:

$$\text{Net worth} = \text{Total assets} - \text{Total liabilities}$$

Reasons for creating a net worth statement include:

- To check your progress towards financial goals, as mentioned above
- To plan for changes in assets or liabilities
- To keep tax liability to a minimum
- To estimate how well dependent survivors would be able to live off their current inheritance if you were to die in the near future
- To determine the need for life and property insurance
- To serve as a reminder to make adjustments in insurance coverage or assets held
- To give an estimate of retirement savings progress

Income statement

(Based on “Making a Budget” found at <http://money.cnn.com/pf/101/lessons/2/>)

An income statement reports income and expenses over a PAST period of time (compare to a budget). Income statements are typically created for a month, three-month period, six-month period or a year. For example, you might create an income statement for yourself that covers the year ending December 31, 2005. Some common sources of income include:

- Wages, salaries, tips
- Interest and dividend income from investments
- Capital gains (or losses) from the sale of assets
- Alimony and child support received
- Gifts, prizes, etc.
- Government payouts such as Social Security benefits or unemployment compensation

Expenses include rent, house payment, car payment, utilities, daycare expense, groceries, dining out and entertainment, etc. For other examples of expenses, see the JOHN SMITH CASE STUDY handout contained in this module. Expenses can be divided into two categories: fixed and variable.

Fixed expenses are those that are the same every month. Examples of fixed expenses include rent and car payment.

Variable expenses are those that change month to month. Examples of variable expenses include gas for your car or groceries.

Reasons for creating an income statement include:

- To record how you spend your money now
- To create a realistic budget
- To monitor your spending and compare it to your budget

Budget

(Based on “Making a Budget” found at <http://money.cnn.com/pf/101/lessons/2/>)

An income statement and a budget are the same in all respects except that a budget is a plan for income and expenses over a FUTURE period of time (compare to an income statement). Typically a budget is created for a month and/or for a year. This allows you to account for payment of some bills that may occur less frequently

than every month, such as a car insurance bill. It may be helpful to use an income statement to track your past monthly income and expenses for a couple of months before developing a budget for your future monthly income and expenses.

Reasons for creating a budget include:

- Increased awareness of financial priorities
- Comparison to your income statement to identify tendencies to overspend
- Comparison to your income statement to identify budget items that need to be adjusted to be more realistic
- Inclusion of a savings and investment plan, i.e., pay yourself first

Some tips for creating a manageable budget include:

Be realistic. Track expenses in a monthly income statement for 2–3 months prior to creating a budget so that you can make realistic adjustments to your money habits in order to meet your financial goals.

Allow for some fun in your budget. Include a category for entertainment and/or vacation.

Use income and expense categories that apply to your situation. If, for example, you suspect you may overspend on dining out, you may want to track this expense item separately from groceries or other entertainment expenses.

Track and plan expenses in round figures. For variable expenses, track amounts to the nearest dollar and budget amounts to the next higher multiple of \$5 or \$10. Tracking expenses to the penny is likely to quickly become tiresome.

Don't double-count taxes. If you start with gross income, include taxes withheld from your paycheck as an expense. However, if you start with take-home pay, the taxes have already been subtracted from the pay amount and should not be subtracted as an expense.

Track credit card interest expense separately from purchases charged to credit cards. When making a purchase with a credit card, include the cost of the item in the appropriate budget category. If you carry a balance on a credit card and consequently incur finance charges (interest), record the finance charge as a separate expense. This avoids double-counting of the purchase and provides insight regarding the cost of carrying a credit card balance.

Consider variable expenses when considering expenses that could be reduced if you are looking for ways to increase savings. It is not usually realistic to expect to be able to make adjustments to fixed expenses quickly.

Emergency fund

Consumers tend to think of their investment portfolio in conjunction with major financial goals and plans—saving for a home purchase or saving for retirement. These are worthy goals requiring prudent planning and preparation. In addition, however, investors will need a reserve fund to provide for unintended financial emergencies that might arise—medical crises, loss of employment, etc. If any of these circumstances were to arise, it could be very cumbersome and expensive to “raid” your investment accounts to cover any financial shortfall. For example, there might be commissions, fees and/or early distribution penalties when long-term investment assets must be sold to meet a financial emergency. Depending upon the investment vehicles being used, it is entirely possible that use of long-term investment assets could create negative and harsh tax consequences. For example, taking early distributions from certain tax-favored retirement plans is not only a taxable event, but might also be subject to a 10% tax penalty.

In fact, many professional advisors recommend that the creation of an emergency fund be among the first priorities as individuals develop an investment program. They also typically advise that the emergency fund be held in a highly liquid, low-risk account, possibly a savings account or money market mutual fund.

How much is enough in an emergency fund? Some ratios and rules-of-thumb provide guidelines:

The Liquid Assets to Take-home Pay ratio indicates how many months of income you have in liquid savings. Financial advisors often recommend that three to six months' worth of take-home pay be held in liquid assets in order to provide some insurance in case of sudden loss of income. John Smith (in the JOHN SMITH CASE STUDY at the end of this module) has a Liquid Assets to Take-Home Pay ratio of $\$1,287/\$2,907 = 0.44$, where the liquid assets are checking account balance, savings account balance and cash on hand. Mr. Smith has less than half a month's take-home pay in liquid assets. (Source: *Personal Finance: An Integrated Approach 7th ed.*, by Bernard J. Winger and Ralph R. Frasca.)

Web Site Documentation

www.dallasfed.org/ca/wealth/index.cfm

Gives an example of a fictitious character determining his net worth and budget. Also allows the user to create his own net worth statement and budget.

www.calculatorweb.com/calculators/budgetcalc/

An online calculator that can be used to create an income statement with historical information or a budget with forecasted amounts.

www.bloomberg.com/invest/calculators/emerg_sav.html

Website calculator that can be used to determine savings levels necessary to accumulate an emergency fund.

www.newlywedfinances.com/networth.htm

Provides a detailed net worth statement template that can be printed and filled out or downloaded as an MS Excel spreadsheet.

www.newlywedfinances.com/budget.htm

Provides a detailed cash flow budget template that can be printed and filled out or downloaded as an MS Excel spreadsheet.

www.kiplinger.com/personalfinance/tools/cashflow.html

An online income statement calculator that may also be used as a budget calculator.

www.kiplinger.com/personalfinance/tools/budget.html

An online budget calculator that includes comparison of budgeted amount to actual amount.

Lesson Plan and Relevant Assignments

Materials Needed:

- WEBSITES handout
- JOHN SMITH CASE STUDY handout

90-minute Lesson Plan:

10 minutes: Pass out the JOHN SMITH CASE STUDY and WEBSITES handouts and briefly discuss their purposes. Allow students a few minutes to read through the case study and become familiar with it.

20 minutes: Segment 1. Review Key Terminology and the background information. Points that the facilitator might want to bring out are listed at the beginning of the background information section.

20 minutes: Segment 2. Have students complete the assignment **Determining Net Worth** below. The facilitator might want to call attention to these points:

- different classes of assets and liabilities
- possible consequences of a negative net worth
- possible consequences of inadequate current assets

20 minutes: Segment 3. Have students complete the assignment **Creating an Income Statement** below. The facilitator may want to call attention to these points:

- similarities and differences between income statements and budgets
- use of an income statement as a starting point for creating a budget

10 minutes: Segment 4. Assign **Creating a Budget** outlined below for homework. The facilitator may want to bring out the tips for creating a budget as outlined in the background information. Point out that one goal John Smith might have in mind when creating a budget is spending less than he earns or, more specifically, having total expenses for a month less than \$2,900.

10 minutes: Segment 5. Re-emphasize potential consequences of having inadequate emergency reserves. Direct students to complete the **Using an Emergency Fund Calculator** exercise.

35-minute Lesson Plan:

The instructor will want to focus on either the Net Worth Statement as explored in Segment 2 above OR on the Income Statement as explored in Segment 3 above.

5 minutes: Pass out the JOHN SMITH CASE STUDY and WEBSITES handouts and briefly discuss their purposes. Allow students a few minutes to read through the case, concentrating on the portions relevant to the assignments to be used in class.

10 minutes: Segment 1. Review Key Terminology and the background information. Points that the facilitator might want to bring out are listed at the beginning of the background information section, focusing on the portions relevant to the assignments to be used in class.

15 minutes: Segment 2. Have students complete the assignment **Determining Net Worth** below. The facilitator might want to call attention to these points:

- different classes of assets and liabilities
- possible consequences of a negative net worth
- possible consequences of inadequate current assets

OR

15 minutes: Segment 3. Have students complete the assignment **Creating an Income Statement** below. The facilitator might want to call attention to these points:

- similarities and differences between income statements and budgets
- use of an income statement as a starting point for creating a budget

5 minutes: Segment 4. Assign **Creating a Monthly Income Statement** and/or **Creating a Budget** outlined below for homework. The facilitator might want to bring out the tips for creating a budget as outlined in the background information. Point out that one goal John Smith might have in mind when creating a budget is spending less than he earns, or more specifically, having total expenses for a month less than \$2,900.

Assignments:

Note: Assignments 1–4 use the JOHN SMITH CASE STUDY provided as a handout at the end of the module.

Segment 2 - Determining Net Worth

This website also provides background information about money management.

URL: www.dallasfed.org/ca/wealth/index.cfm

1. Go to www.dallasfed.org/ca/wealth/pdfs/wealth.pdf (an interactive version is also available at the website above), and navigate to the balance sheet in chapter 1, Wealth Creation: Learn the Language.
2. Using the information from the JOHN SMITH CASE STUDY, fill out the balance sheet and determine John's net worth.
3. In the answer key, cash on hand and checking account have been combined as "Cash."

Segment 3 - Creating a Monthly Income Statement

Monthly or annual data may be used for this calculator.

URL: www.calculatorweb.com/calculators/budgetcalc/

1. Remind students that income statements and budgets are identical except that income statements apply to a PAST period and budgets are plans for a FUTURE period. Also remind students that an income statement can be helpful in creating a realistic budget.
2. Using the information from the JOHN SMITH CASE STUDY, create John Smith's income statement.
3. In the answer key, groceries, personal care, gym membership, and miscellaneous have been combined as "Living Expenses." Likewise, utilities, cell phone, and cable TV have been combined as "Utilities."
4. Mr. Smith's outflow exceeds his inflow. Discuss the implications of this with the students and come up with some possible solutions.

Segment 4 - Creating a Monthly Budget

Monthly or annual data may be used for this calculator.

URL: www.calculatorweb.com/calculators/budgetcalc/

1. Create a monthly budget for John Smith, using his income statement as a starting point.

Segment 5 - Using an emergency fund calculator

A strength of this simple tool is its ability to explore how the build up of the fund is sensitive to choices of contribution amount, interest rate, etc.

URL: www.bloomberg.com

1. Go to the calculator at www.bloomberg.com/invest/calculators/emerg_sav.html.
2. Calculate emergency expenses using the integrated tool. Fill in the remaining five fields, click “calculate” and observe the build up of the emergency fund during the accumulation phase below the input screen.

PERSONAL FINANCIAL STATEMENTS

WEBSITES

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PERSONAL FINANCIAL STATEMENTS

JOHN SMITH CASE STUDY

John Smith, 27, works as a reference librarian at the City Library. He earns a salary of \$47,000, which John thinks ought to be enough money to live comfortably as a single person with no children. However, he often feels strapped for cash. Since he graduated from college five years ago, he has not worried too much about how he has spent his paychecks. Recently he has seen several articles and advertisements about the wisdom of regularly saving for retirement starting at an early age. How, John wonders, is it possible to save anything when it seems he never has any money left over after paying his bills? John has gathered information about his bank accounts and investments. He has also tracked his expenses for the past few months in order to better understand his own money habits. His assets, liabilities, and average monthly income and expenses are provided below.

ASSETS – December 31, 2005

LIQUID ASSETS				
	LOCATION	BALANCE	RATE OF INTEREST	MATURITY
CHECKING	Bank of America	\$567	N/A	N/A
SAVINGS ACCT.	National Credit Union	\$670	0.50%	N/A
CASH ON HAND	Wallet	\$ 50	N/A	N/A

INVESTMENT ASSETS						
Security	#Shares	Cost			Current Value	
		Date Acquired	Per Share	Total	Per Share	Total
Home Depot Stock HD (ticker)	30	06/15/2000 purchased with graduation gift money	\$56.50	\$ 1,695	\$40.48	\$ 1,214
Royce Total Return Fund RYTRX (ticker)	1,000	09/07/2003 inherited from John's uncle	\$ 9.97	\$ 9,970	\$12.60	\$12,600
City Library Retirement Plan (fully vested) Fidelity Freedom 2040 mutual fund FFFFX (ticker)	1,758	Purchased monthly through payroll deduction, dividends automatically reinvested	Average \$ 7.77	\$13,660	\$ 8.83	\$15,523

LIFESTYLE ASSETS				
Asset	Date Acquired	Cost	Replacement Cost	Market Value
2004 Ford Focus	02/14/04	\$13,495	\$14,985	\$9,195
Stereo Equipment	12/25/98	Gift	\$795	\$150
TV	06/01/00	\$79	\$60	\$20
Computer Equipment	01/28/03	\$899	\$749	\$200
Home furnishings	Various dates	Approx. \$4,000	Approx. \$5,000	\$950
Clothing, personal items	Various dates	Approx. \$1,000	Approx. \$1,200	\$200

LIABILITIES – December 31, 2005

LOANS							
To whom owed	Original Amount of loan	Type of loan	Interest Rate	Current Balance	Monthly Payment	Total # pymts	Date of Loan
Ford	\$10,000	Car loan	5.9%	\$6,670	\$193	60	02/04/04
Sallie Mae	\$40,000	Student loan	3.45%	\$19,711	\$395	120	06/10/00
CREDIT CARDS							
Account		Annual Fee	Int. Rate	Max. Line Of Credit	Outstanding balance	Min. monthly payment	
MBNA MasterCard 4897 XXXX XXXX XXXX		\$0	18.9%	\$5,000	\$942	Finance charges plus any late fees, plus 1% of outstanding balance	
Citicorp Visa 4310 XXXX XXXX XXXX		\$0	12.0%	\$5,000	\$1,574	Finance charges plus any late fees, plus 1% of outstanding balance	

The combined average minimum payment on John's credit cards is \$61 per month. However, if his new financial plan will allow it, he will pay more than the minimum until the balances are paid in full. John has vowed not to charge any new purchases during 2006.

INCOME AND EXPENSES FOR YEAR ENDED DECEMBER 31, 2005

INCOME		
	Monthly	Annual
Salary	\$2,907 (net after \$585 in federal & state income taxes withheld, \$300 in Social Security & Medicare tax withheld, and \$125 contribution to retirement plan)	\$34,880 (net after \$7,020 in federal & state income taxes withheld, \$3,600 in Social Security & Medicare tax withheld, and \$1,500 contribution to retirement plan)
Interest	\$4.67	\$56

EXPENSES		
	Monthly	Annual
Rent	\$950	\$11,400
Utilities (elec., heat, water)	\$120	\$1,440
Cell phone	\$40	\$480
Cable TV	\$50	\$600
Groceries	\$400	\$4,800
Dining out & entertainment	\$300	\$3,600
Car payment	\$193	\$2,316
Car expenses (gas, repairs, maintenance)	\$100	\$1,200
Car insurance	\$198	\$2,376
Student loan payments	\$395	\$4,740
Credit card payments for past charges (no new charges in 2006)	\$61	\$732
Personal care expenses	\$25	\$300
Household purchases	\$50	\$600
Miscellaneous	\$50	\$600

PERSONAL FINANCIAL STATEMENTS

DETERMINING NET WORTH

SOLUTION

Source: www.dallasfed.org/ca/wealth/index.cfm

My Balance Sheet

Wealth-building assets	Amount
Cash	617
Savings account	670
Stocks, bonds and other investments	13814
401 (k) retirement plan / IRA	15523
Market value of home	0
Other assets	1520
Market value of car	9195
Total assets	41339
Liabilities	Amount
Home mortgage	0
Car loan balance	6670
Credit card balances	2516
Student loan	19711
Child support*	0
Miscellaneous liabilities	0
Total liabilities	28897
Net worth	12442

PERSONAL FINANCIAL STATEMENTS
CREATING A MONTHLY INCOME STATEMENT SOLUTION

Source: www.calculatorweb.com/calculators/budgetcalc/

BUDGET CALCULATOR

INCOME	EXPENDITURE
<p><u>Salary after tax:</u> \$ <input style="width: 80px;" type="text" value="2907.00"/></p> <p><u>Government Benefits:</u> \$ <input style="width: 80px;" type="text" value="0.00"/></p> <p><u>Super./Pension:</u> \$ <input style="width: 80px;" type="text" value="0.00"/></p> <p><u>Interest/Dividends:</u> \$ <input style="width: 80px;" type="text" value="4.67"/></p> <p><u>Annuities:</u> \$ <input style="width: 80px;" type="text" value="0.00"/></p> <p><u>Other Income:</u> \$ <input style="width: 80px;" type="text" value="0.00"/></p>	<p><u>Mortgages:</u> \$ <input style="width: 80px;" type="text" value="0.00"/></p> <p><u>Rent:</u> \$ <input style="width: 80px;" type="text" value="950.00"/></p> <p><u>Utilities:</u> \$ <input style="width: 80px;" type="text" value="210.00"/></p> <p><u>Credit Cards:</u> \$ <input style="width: 80px;" type="text" value="61.00"/></p> <p><u>Loans:</u> \$ <input style="width: 80px;" type="text" value="193.00"/></p> <p><u>Insurance Policies:</u> \$ <input style="width: 80px;" type="text" value="198.00"/></p> <p><u>Car Expenses:</u> \$ <input style="width: 80px;" type="text" value="100.00"/></p> <p><u>Living Expenses:</u> \$ <input style="width: 80px;" type="text" value="525.00"/></p> <p><u>Entertainment:</u> \$ <input style="width: 80px;" type="text" value="300.00"/></p> <p><u>Education Expenses:</u> \$ <input style="width: 80px;" type="text" value="395.00"/></p> <p><u>Other Expenses:</u> \$ <input style="width: 80px;" type="text" value="0.00"/></p>
RESULT	
<p>Total Income: \$ <input style="width: 80px;" type="text" value="2911.67"/></p>	<p>Total Expenditure: \$ <input style="width: 80px;" type="text" value="2932.00"/></p>
<p>YOUR SURPLUS IS: \$ <input style="width: 80px;" type="text" value="-20.33"/></p>	