## Lesson 4 Income Statement

Bell Ringer: Now that you know what income is, list as many people, businesses and groups that you think would need an income statement and why they would need one.

## A. Section 1 - Briefly Review Previous Material (Est. time 5 minutes)

1. Financial Terms \& Forms of business
2. Balance Sheet
B. Section 2 - Introduce Income Statement (Schedule F/C, P\&L) (Est. time 10-15 minutes)
3. Show an example of an income statement (Nick \& Polly Hokie)
4. An Income Statement is a list of all the revenues and expenses for the entire farm/business for a given period (usually 1 year)
5. Shows the profitability of the business (Total Revenues - Total Expenses: from Lesson 2)
6. Discuss how a manager or lender uses an income statement in a loan application
a. Income statements tell the loan officer and the manager if the business made profits for the period, and how much profits (loss) it made. The lender wants to see a profitable business - profits allow the business to repay the loan. An unprofitable business will have trouble paying its bills, replacing its assets as they wear out, and repaying its loans.
b. Income statements give the manager valuable information that he/she can use to make improvements in the business to increase profits. How can the increase sales revenues or decrease operating expenses? The quickest way to improve the profitability of a business is to reduce its 5 largest expenses (without hurting production or quality).
C. Section 3 - Discuss the Main Sections of An Income Statement (Est. time 30-35 minutes)
7. Revenues
a. Revenues are the income from selling its products and services. Ideally, the revenues for each product and service should be listed separately. However, they are commonly "lumped" into 1 category - not recommended!
b. The business may have other revenues besides the sale of products and services. They may get revenues from:
i. rental of their property or assets
ii. custom work for other businesses or subcontracting
iii. income from the business' investments (in stocks, bonds, CDs, etc.)
iv. government program payments
v. proceeds from an insurance policy
c. Principal from loans does NOT get included as a revenue.
8. Expenses
a. Ideally, the expenses should be divided into 2 categories: Operating (Variable) and Overhead (Fixed). This gives the manager better information, and enables them to make better decisions. Lenders also like to see the expenses divided this way.
b. Operating Expenses are the expenses from producing your products or services. They may also be called "Cost of Goods Sold". The more you produce, the higher your operating expenses will be. Examples on a farm would be feed, seed, fertilizer, hired labor, and hauling expenses.
c. Overhead Expenses are the expenses you have just for being in business. These expenses typically do not vary much as you produce more or less - hence, they are often called "fixed expenses". Examples of Overhead Expenses are:
i. Office rent, utilities, administrative costs, property taxes, insurance premiums
ii. Depreciation - this represents the loss of value of an asset due to "rust out, wear out, and fade out" (Lesson 2). You do not pay depreciation expenses in cash - they are called "non-cash expenses". But it is still important to include depreciation expenses on your income statement - they represent a real loss of value (an expense) to the business. If you can't generate enough revenues to cover your depreciation expenses, you can't replace your facilities and equipment as they wear out.
d. Interest on loans is a business expense. This expense should be included on your income statement.
e. Principal payments on loans (the portion of the loan principal that you repaid that period) do NOT go on an income statement. Principal payments are not an expense to the business - they simply represent money that someone lent you and you are repaying. For example, assume you borrow $\$ 100$ at $5 \%$ interest for 1 year. At the end of the year you will pay the lender $\$ 105$ ( $\$ 100$ of principal $+\$ 100 \times 5 \%$ interest). Because the lender gave you $\$ 100$ and you repaid $\$ 105$, the expense of the loan was only \$5 (the interest you paid).
9. Gross Margin
a. Gross Margin tells a manager how much money is left over from the revenues after the operating (variable) expenses are paid. Another term for gross margin is "short term profits". You always want your gross margin to be greater than zero. If you cannot find a way to earn a gross margin greater than zero, you should close the business.
10. Net Profit (Net Income, Net Farm Income)
a. The "bottom line" for a business manager is profits. Other terms for profits are "Net Income" or "Net Farm Income". Profits are how much of the revenues are left after all expenses (operating and overhead) are paid. You would like to see your profits greater than zero in most cases. If you cannot consistently earn profits greater than zero, you need to make significant changes to the business or close the business.
11. Exercise on filling out a Schedule C, calculating Net Income
a. Have students identify the top 5 expenses - focus on reducing these without hurting
b. revenues or production

## Materials: PowerPoint on Income Statements Note Organizer In-Class Exercise and Key Homework Exercise and Key Student Driven Activity Reading on Income Statements (optional)



## Income Statements- Note Organizer

- $\qquad$ - income from sale of products and services
$\qquad$ - operating expenses \& overhead expenses
- Duration is typically 1 year
- Can be called Profit and Loss Statement
- Shows $\qquad$ of the business
- The $\qquad$ shows your net income or profit for the period
- These tax forms can be used as a format
$\circ$ $\qquad$ - farm
$\circ$ $\qquad$ - business
- Used to:

0

- Net farm income
- Weekly, monthly, quarterly, yearly, etc...
$\circ$
- Repayment ability

SECTIONS OF AN INCOME STATEMENT

|  | Description | Description (cont.) |
| :--- | :--- | :--- |
| REVENUE |  |  |
| EXPENSES |  |  |

85

|  |  |  |
| :--- | :--- | :--- |
| GROSS MARGIN |  |  |
| PROFITS <br> (Net Income, Net Farm Income) |  |  |
|  |  |  |

## Income Statement In-Class Exercise

Use the following information to complete an income statement for Jack's Roadside Market. Not all
of the information belongs on an income statement. of the information belongs on an income statement.

| Annual Business License | $\$ 100$ |
| :--- | ---: |
| Hired Labor Wages | $\$ 12,000$ |
| Operating Loan Principal Received | $\$ 35,000$ |
| Depreciation | $\$ 8,000$ |
| Office Expense | $\$ 1,200$ |
| Total Sales (Gross Receipts) | $\$ 115,000$ |
| Repairs \& Maintenance | $\$ 900$ |
| Supplies | $\$ 2,000$ |
| Interest on Mortgage | $\$ 3,500$ |
| Interest on Other Loan | $\$ 700$ |
| Legal \& Professional Services | $\$ 1,500$ |
| Car \& Truck Expenses | $\$ 2,500$ |
| Advertising | $\$ 800$ |
| Utilities | $\$ 4,000$ |
| Loan Principal Repaid | $\$ 6,000$ |
| Insurance | $\$ 3,000$ |

To calculate the Cost of Goods Sold (Operating Expenses): Use Part III of Schedule C

| Beginning Inventory | $\$ 30,000$ |
| :--- | ---: |
| Hired Labor Wages - Production | $\$ 18,000$ |
| Purchase of Inventory | $\$ 25,000$ |
| Materials \& Supplies | $\$ 3,000$ |
| Ending Inventory | $\$ 35,000$ |

Calculate the Gross Margin (Line 7) for Jack's business.

Calculate the Net Income (Line 31) for Jack's business. What can Jack do with these profits?

What can Jack do to try to improve the profitability (net income) of his business?

## Income Statement In-Class Exercise (Key)

Use the following information to complete an income statement for Jack's Roadside Market. Not all of the information belongs on an income statement.

| Annual Business License | $\$ 100$ |  |
| :--- | ---: | :--- |
| Hired Labor Wages | $\$ 12,000$ |  |
| Operating Loan Principal Received | $\$ 35,000$ | Does not belong on an income statement |
| Depreciation | $\$ 8,000$ |  |
| Office Expense | $\$ 1,200$ |  |
| Total Sales (Gross Receipts) | $\$ 115,000$ |  |
| Repairs \& Maintenance | $\$ 900$ |  |
| Supplies | $\$ 2,000$ |  |
| Interest on Mortgage | $\$ 3,500$ |  |
| Interest on Other Loan | $\$ 700$ |  |
| Legal \& Professional Services | $\$ 1,500$ |  |
| Car \& Truck Expenses | $\$ 2,500$ |  |
| Advertising | $\$ 800$ |  |
| Utilities | $\$ 4,000$ |  |
| Loan Principal Repaid | $\$ 6,000$ | Does not belong on an income statement |
| Insurance | $\$ 3,000$ |  |

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| Beginning Inventory | $\$ 30,000$ |
| :--- | ---: |
| Hired Labor Wages - Production | $\$ 18,000$ |
| Purchase of Inventory | $\$ 25,000$ |
| Materials \& Supplies | $\$ 3,000$ |
| Ending Inventory | $\$ 35,000$ |

Calculate the Gross Margin (Line 7) for Jack's business.
Gross Margin = \$115,000-\$41,000=\$74,000
Calculate the Net Income (Line 31) for Jack's business. What can Jack do with these profits?
Net Income = \$74,000-\$40,200 = \$33,800

Jack can use this to pay his salary (which is not included on Schedule C), pay income taxes, repay his loans, purchase new equipment, donate some to church/charity, or build his savings (liquidity)

What can Jack do to try to improve the profitability (net income) of his business?
Reduce his top 5 expenses without hurting production. Increase his selling price. Sell new/different products. Stop selling unprofitable products.

## Income Statement Homework Exercise

Use the following information to complete an income statement for Ernie's Welding \& Machine Shop. Not all of the information belongs on an income statement. Please use the Schedule C tax form to build this income statement.

| Total Sales (Gross Receipts) | $\$ 550,000$ |
| :--- | ---: |
| Wages - Hired Administrative Labor | $\$ 42,000$ |
| Car \& Truck Expenses | $\$ 5,500$ |
| Operating Loan Principal Received | $\$ 125,000$ |
| Depreciation | $\$ 15,000$ |
| Office Expense | $\$ 2,800$ |
| Operating Loan Principal Repaid | $\$ 125,000$ |
| Repairs \& Maintenance | $\$ 9,000$ |
| Other expenses | $\$ 5,000$ |
| Rent - machinery | $\$ 20,000$ |
| Supplies | $\$ 52,000$ |
| Income Taxes | $\$ 28,000$ |
| Annual Business License | $\$ 200$ |
| Interest on Mortgage | $\$ 12,500$ |
| Interest on Other Loan | $\$ 6,000$ |
| Legal \& Professional Services | $\$ 2,500$ |
| Advertising | $\$ 8,000$ |
| Utilities | $\$ 34,000$ |
| Mortgage Principal Repaid | $\$ 30,000$ |
| Insurance | $\$ 23,000$ |

To calculate the Cost of Goods Sold (Operating Expenses): Use Part III of Schedule C

| Beginning Inventory | $\$ 50,000$ |
| :--- | ---: |
| Hired Labor Wages - Production | $\$ 88,000$ |
| Purchase of Inventory | $\$ 125,000$ |
| Ending Inventory | $\$ 65,000$ |

Calculate the Gross Margin (Line 7) for Ernie's business.

Calculate the Net Income (Line 31) for Ernie's business.

What can Ernie do to try to improve the profitability (net income) of his business?
Cost
bLower of cost or market
cOther (attach explanation)
34 Was there any change in determining quantities, costs, or valuations between opening and closing inventory? If "Yes," attach explanationYesNo
 Part IV Information on Your Vehicle. Complete this part only if you are claiming car or truck expenses on line 9 and are not required to file Form 4562 for this business. See the instructions for line 13 to find out if you must file Form 4562.
 Part V Other Expenses. List below business expenses not included on lines 8-26 or line 30. $\square$ No


## - Farm Credit

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## Income Statement Homework Exercise (Key)

Use the following information to complete an income statement for Ernie's Welding \& Machine Shop. Not all of the information belongs on an income statement. Please use the Schedule C tax form to build this income statement.

| Total Sales (Gross Receipts) | $\$ 550,000$ |  |
| :--- | ---: | ---: |
| Wages - Hired Administrative Labor | $\$ 42,000$ |  |
| Car \& Truck Expenses | $\$ 5,500$ |  |
| Operating Loan Principal Received | $\$ 125,000$ | Not on an income statement |
| Depreciation | $\$ 15,000$ |  |
| Office Expense | $\$ 2,800$ |  |
| Operating Loan Principal Repaid | $\$ 125,000$ | Not on an income statement |
| Repairs \& Maintenance | $\$ 9,000$ |  |
| Other expenses | $\$ 5,000$ |  |
| Rent - machinery | $\$ 20,000$ |  |
| Supplies | $\$ 52,000$ |  |
| Income Taxes | $\$ 28,000$ | Not on an income statement |
| Annual Business License | $\$ 200$ |  |
| Interest on Mortgage | $\$ 12,500$ |  |
| Interest on Other Loan | $\$ 6,000$ |  |
| Legal \& Professional Services | $\$ 2,500$ |  |
| Advertising | $\$ 8,000$ |  |
| Utilities | $\$ 34,000$ |  |
| Mortgage Principal Repaid | $\$ 30,000$ | Not on an income statement |
| Insurance | $\$ 23,000$ |  |

To calculate the Cost of Goods Sold (Operating Expenses): Use Part III of Schedule C

| Beginning Inventory | $\$ 50,000$ |
| :--- | ---: |
| Hired Labor Wages - Production | $\$ 88,000$ |
| Purchase of Inventory | $\$ 125,000$ |
| Ending Inventory | $\$ 65,000$ |

Calculate the Gross Income (Line 7) for Ernie's business.
$\$ 352,000$ see Schedule C
Calculate the Net Income (Line 31) for Ernie's business.

## \$114,500 see Schedule C

What can Ernie do to try to improve the profitability (net income) of his business?
He can try to reduce his 5 largest expenses.
He can charge a higher price for his services, without scaring customers away.

Part III Cost of Goods Sold (see instructions)


## Income Statement- Student Driven Activity

Student Driven Activity: Using the same scenario you developed in the Budget lesson add the additional information you need to complete it as an income statement. After adding the additional information the teacher will collect the scenarios and give them to someone different than the previous lesson. The new student will fill out an income statement and Schedule $C$ utilizing the information given. Be sure to create an answer sheet to check your classmate's work!

## Income Statement Additional Reading

In the previous lesson we talked about how doctors need to know your current condition and your medical history over time. We discussed how a business' balance sheet shows its current financial condition on that day. Managers and lenders use an Income Statement (also called a Profit \& Loss Statement or simply, a P\&L) to look at how the business has performed over time - similar to how a doctor looks at your medical history. We refer to this performance as Profitability - did the business make money or lose money last year?

An Income Statement shows all of the Revenues and Expenses of the business over a period of time, usually one year. Revenues are the dollars that come into the business from the sale of goods or services. For Greta, her revenues are the money coming in from the sale of produce and crafts. To calculate Revenues, simply multiply the selling price of the product by the amount that you sell. For example, if Greta sells 100 dozen ears of corn at a price of $\$ 5 /$ dozen, her revenues are $\$ 500$ ( 100 dozen $x \$ 5 /$ dozen). The Income Statement lists all of the revenues that come into the business over that period of time.

Expenses are the costs of doing business. Remember from Lesson 1 - The Language of Business - we classified expenses into Operating (or Variable) Expenses and Overhead (or Fixed) Expenses. Greta's Income Statement will show her operating expenses for the year:

$$
\begin{array}{lr}
\text { Cost of the Produce she purchased to resell } & \$ 150,000 \\
\text { Cost of the Crafts she purchased to resell } & \$ 80,000
\end{array}
$$

Greta has direct control over her Operating Expenses. She can decide to purchase more produce this year than she did last year, or she can decide to not purchase certain items at all. Remember that Operating Expenses change with the level of sales - the more produce Greta sells, the more she has to purchase; or if she purchases less, she will have less produce to sell, and her sales will decrease. When you purchase items to resell, like Greta's produce and crafts, the purchase price is often called "Cost of Goods Sold".

Greta has less control over her Overhead Expenses than she does for her Operating Expenses. Overhead Expenses are those expenses that she has just because she is in business. Examples of her Overhead Expenses are:

| Business License | $\$ 1,000$ |
| :--- | ---: |
| Utilities (electricity, water, etc.) | $\$ 15,000$ |
| Liability Insurance | $\$ 5,000$ |
| Supplies | $\$ 10,000$ |
| Interest on her loans | $\$ 14,000$ |
| Labor | $\$ 70,000$ |
| Office Expenses | $\$ 6,000$ |


| Property Taxes | $\$ 15,000$ |
| :--- | ---: |
| Advertising | $\$ 25,000$ |
| Legal Fees | $\$ 4,000$ |
| Depreciation | $\$ 30,000$ |

Notice that the Overhead Expenses do not necessarily change with the level of sales. Greta will have to pay for her business license, property taxes, and liability insurance regardless of how much produce she sells. Her utility bills and labor expenses may change a little as the level of sales changes, but not very much. Her assets, such as the refrigerators, cash registers and building will lose value (depreciate) whether she has a lot of sales or if she has a bad year. Because these overhead expenses do not change (much) with the level of sales, they are often called "Fixed Expenses".

The expenses that are listed on an Income Statement are directly related to the business. Greta will not include any of her personal expenses on her Income Statement. There are two other items that are not included on an Income Statement: Principal payments on loans, and income taxes. When you borrow money you typically make regular payments back to the lender to repay the loan. These payments consist of interest (the cost of borrowing money) and principal (money you borrowed from the lender). Let's look at a very simple example. Assume that you borrow $\$ 100$ from a bank. You will pay the bank $\$ 110$ at the end of the year. This $\$ 110$ includes the $\$ 100$ (principal) that you borrowed from the bank and $\$ 10$ of interest. The principal is not an expense - you are just repaying money that someone lent to you. In this example, the bank loaned you $\$ 100$ of principal. The principal is NOT a revenue for the business, so it doesn't get listed in the revenue section. When you pay the bank $\$ 110$ at the end of the year, you are simply returning the $\$ 100$ of principal - this is NOT an expense for the business - plus $\$ 10$ of interest, which is an expense. The interest is the cost of getting the loan, so it definitely goes on an Income Statement.

We don't include income taxes for the business on an Income Statement. That's because we use an Income Statement to help figure out how much taxes the business will owe on its profits. For this reason, the bottom line of the Income Statement is often called "pre-tax net income" or "earnings before taxes".

There are several formats for an Income Statement. Two examples are attached to this lesson. Each format has three main sections: Total Revenues, Total Expenses, and Net Income (or Profit). Some formats are much more detailed, some are very basic. Look at the differences in the two example Income Statements. The Schedule F tax form from the Internal Revenue Service (the IRS) is very detailed, listing specific revenues and expenses. The "generic" format simply lists the main categories. But the bottom line on both formats is the same - Net Income.
Now, let's look at the Income Statement for Greta's business:

## Greta's Green Grocery

## Income Statement

For the year 2022

| Revenues: |  |
| :--- | ---: |
| $\quad$ Produce | $\$ 325,000$ |
| Crafts | $\$ 175,000$ |
| $\quad$ Total Revenues | $\$ 500,000$ |
|  |  |
| Operating Expenses: | $\$ 150,000$ |
| $\quad$ Produce | $\$ 80,000$ |
| $\quad$ Crafts | $\$ 230,000$ |
| $\quad$ Total Operating Expenses |  |
|  |  |
| Overhead Expenses: | $\$ 1,000$ |
| $\quad$ Business License | $\$ 15,000$ |
| $\quad$ Utilities (electricity, water, etc.) | $\$ 5,000$ |
| $\quad$ Liability Insurance | $\$ 10,000$ |
| Supplies | $\$ 14,000$ |
| Interest on her loans | $\$ 70,000$ |
| Labor | $\$ 6,000$ |
| Office Expenses | $\$ 15,000$ |
| Property Taxes | $\$ 25,000$ |
| Advertising | $\$ 4,000$ |
| Professional Fees (lawyer, accountant) | $\$ 30,000$ |
| Depreciation | $\$ 195,000$ |
| Total Overhead Expenses | $\$ 425,000$ |
| Total Expenses |  |
|  | $\underline{\$ 75,000}$ |

Greta's Income Statement shows that she earned a profit of $\$ 75,000$ for the year. This is before she pays her income taxes. If Greta is operating her business as a sole proprietorship all of these profits are hers - basically, the profits of a sole proprietorship are the owner's "salary" for the year.

Income Statements are an important financial statement for business managers and lenders. This statement shows whether the business has been able to earn profits over time. A business cannot stay open if it doesn't earn profits. Profits, the money that is left after the expenses are paid, allow the
business to grow and expand over time. The profits can be put into a savings account so that the owner is prepared for the bad times when sales are very low. And finally, profits allow the manager to repay the loans that have been taken out by the business.

A more detailed Income Statement lets that manager or lender analyze their business much better. Rather than just showing if the business made profits for the year, a detailed statement can show which products were the most profitable, or which products were actually losing money. A detailed statement helps the manager see what the main expenses are - I like to look at the business' 5 largest expenses to see where the manager can save the most money.

## Income Statement

for the period $\qquad$

Revenues
$\qquad$
$\qquad$
Total Revenues

Operating Expenses:
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$
$\qquad$

## Total Operating Expenses

Overhead Expenses:
$\qquad$
$\qquad$

## Total Overhead Expenses

$\qquad$
Total Expenses (Operating + Overhead) $\qquad$
Pre-Tax Net Income (Profit) $\qquad$

Less: Income Taxes
After-Tax Net Income

100

