Chapter 10

Economics and Financial Management
Chapter Overview

This chapter will cover the subject of microeconomics, which includes an examination of how people engage with arts experiences and organizations. We will also examine how these activities are tracked through the accounting and financial management systems of an arts organization.

Arts organizations operate as small to medium sized businesses and have an impact on in the economy of their community and region. In order to better understand the economic forces that influence how arts organizations function we will examine some of the theories and principles in the field of microeconomics.

When someone buys a ticket to a concert, the revenue generated from that sale goes toward covering the costs of producing the event, including paying the artists. They in turn spend that compensation to buy goods and services, which then helps support the local economy. This is an example of what’s called the **multiplier effect**. For many outside the arts, the argument that arts organizations help support the local economy resonates.
Chapter Overview

**Microeconomics** is the study of how individuals function in a market. For example, the concert ticket buyers interacted with the local chamber orchestra (a seller) and the demand of the buyers and the supply of the concerts creates a market we can analyze and study. **Macroeconomics** looks at the behavior of the economy as a whole. When you see a story about changes in the unemployment rate, you are hearing about an area in macroeconomics.

**Studying Arts Economics**

For a number of years Americans for the Arts have been doing a study on the economic impact of the arts in thousands of communities, and in hundreds of regions, cities and counties. In 2010 data indicated arts organizations expended $61.1 billion operating and audiences expended $74.1 on arts events.

Data and analysis from this report may be found at [http://www.americansforthearts.org/research - Reports and Tools](http://www.americansforthearts.org/research - Reports and Tools)
Studying Arts Economics

William J Baumol and William G. Bowen’s 1966 book *Performing Arts: The Economic Dilemma* helped launch the study of what still remains a fairly small slice of the economy. This landmark study helped provide historical perspective on patterns of arts consumption coupled with detailed analysis of arts demand and supply in the early 1960s.

Heilbrun and Gray’s *The Economics of Art and Culture* (2001) expanded on Baumol and Bowen and extended their analysis to cover current trends while incorporating extensive discussion on public policy’s impact on the arts.

Authors such as Ruth Towse, Bruno Frey, and David Thorsby have expanded the discussion and analysis of the creative economy and industries in a global scale.

Students are urged to explore these writers and the topic beyond this chapter. (See Other Resources p. 420-421)
The 2010 report includes an extensive set of tables and graphs, and offers significant evidence that creative goods and services are an important part of the world economy. The report notes:

Global exports of creative goods and services – products such as arts and crafts, audiovisuals, books, design work, films, music, new media, printed media, visual and performing arts, and creative services – more than doubled between 2002 and 2008. The total value of these exports reached US $592 billion in 2008, and the growth rate of the industry over that six-year period averaged 14%. [Page xx]
The Economic Environment and the Arts
Economics, as a social science, studies how people use the financial resources they possess. After we purchase shelter, food and provide for the other necessities of life, what do we do with the money remaining? These remaining resources are called discretionary income, which implies we can do what we want with the money. We can purchase a ticket to a concert or a movie, or we can go to restaurant for a meal. In other words, we can do many different things with these resources depending on our interests and taste.

Arts Audiences & Economics
It continues to be a challenge for arts organizations to increase audiences and donors who have discretionary income, are arts consumers, and supporters, and who have the time to do so. The 2008 recession and its aftermath is still be felt by organizations. The NEA has been tracking declining levels of participation by arts consumers at the macro level, but at the micro level, arts organizations continue to do what they do year in and out. There have been high profile financial meltdowns of a few arts organizations, but arts entrepreneurs are also busy founding new organizations every year.
Balancing Revenues and Expenses

Despite the ups and downs of the economy, arts managers are still very focused on the revenue and expenses of their organization. Arts managers struggle with discretionary income (or the lack of) just like any household. After the essentials needed to keep the doors open, the lights on, and the people who work there paid, the remaining funds support the programming of the organization. Hence, we have a basic pie graphs showing the resources available and where they go.
Key Concepts from Economics Applied to the Arts

Opportunity Costs
The value you assign the next best alternative forgone in order to undertake a course of action.

For an audience member, there is an opportunity cost related to taking an afternoon off to come to your museum. Their “cost” could have spent at work or the vacation time they used from their job to visit the museum.

For an arts organization their could be an “opportunity cost” related to deciding to start up a new social media campaign rather than spend the time on redoing a series of print and web advertising initiatives.

In both examples, the scare resource of time was expended. The idea of choice interacts with the expenditure of resources and opportunity costs.

Fixed, Variable, and Marginal Costs

Fixed Costs are related to the basic operation of the arts organization. Excluding programming, the fixed costs would be what it takes to keep the organization functioning – the workspace, rent, utilities, and core personnel costs. You could argue the programming is a fixed cost because without it, you don’t really have any purpose to exist as an arts organization.

Variable Costs are typically those costs incurred in support of your programming. For example, if you decide to do an opera with a large chorus you would increase your personnel costs.

Marginal Costs are those costs incurred by producing one more unit of your activity. If you schedule an extra concert performance there will be marginal costs to cover.
Key Concepts from Economics Applied to the Arts

Basic Formulas and Costs

**TR = TC** or Total Revenue is equal to Total Costs. This is often called a break-even point.

**TC = TFC + TVC**, or simply the Total Cost equals the total fixed and variable costs. You could calculate ATC and AVC, or Average Total or Variable Cost. **ATC = TVC/Q** where Q is Quantity such as number of performances.

If the TFC of your concerts were $50,000 and you did 10 performances the **ATC = $50,000/10 or $5,000 each.**

If TVC was $10,000 then the **AVC = TVC/Q** and if **Q was 10**, then the **AVC = $1,000.**

When creating budgets for the organization, the total costs of a program of activity should be factored into the calculation. Allocated costs should include marketing, overhead, salaries, rental, royalties, etc.

(Fig. 10.1 p. 383 shows a simple application of these concepts.)

More Formulas

**Total Revenue (TR) vs Total Net Revenue (TNR)** or it could be called **Gross or Net Revenue**

When calculating your revenue as you create budgets you need to consider what kind of revenue you are counting. If there is a ticket surcharge by a the ticket office on every ticket sold, then you should be calculating either TNR or NR. If you don’t, then TR will not equal TC and you will not cover your costs.

**Marginal Revenue** enters into the picture after your basic calculations for the number of performances and your costs. **MR = that additional revenue generated from an additional performance after factoring in the increased Marginal Costs (MC) of the additional performance.** When **MC exceeds MR** you should not be doing additional performances because you are losing money.
The Law of Demand states that as price decreases, the quantity demanded (QD1) will increase. Demand (QD2) will decrease if the price is increased or will increase (QD3) if the price decreases. However, demand for some arts events are not affected by prices. People want to see a specific show or artist they often are willingly pay higher prices.

Other changes in QD may occur if substitute services are offered at a lower or higher prices. Demand will change with prices of complimentary services and as income increases.
Supply in the Arts

Law of Supply states that Quantity Supplied (QS) will increase as prices increases (QS3) and will decrease as prices decrease (QS2). The main method for controlling supply by arts organization is its schedule. The number of performances and the number of seats or the hours the museum are open directly impacts supply. However, arts organizations typically set prices or hours of operation without regard for maximizing revenue. The organization mission is about access, not restricting supply.
This example shows the supply and demand are often at odds with each other for a performing arts organization. Prices and supply are set far in advance by most organizations. However, if a particular show is in big demand, the supply (QS1) of the most expensive seats ($60) is already set. The result is the arts organization loses income it could have generated if it were using demand-based pricing (see p. 396-397).
Setting Prices and Elasticity

One approach to use is to estimate prices points and demand for tickets to calculate where revenue could be maximized.

<table>
<thead>
<tr>
<th>Ticket Price</th>
<th>Estimated Demand with 900 seat capacity</th>
<th>Revenue</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>$50</td>
<td>200</td>
<td>$10,000</td>
<td></td>
</tr>
<tr>
<td>$46</td>
<td>225</td>
<td>$10,350</td>
<td></td>
</tr>
<tr>
<td>$42</td>
<td>250</td>
<td>$10,500</td>
<td></td>
</tr>
<tr>
<td>$38</td>
<td>300</td>
<td>$11,400</td>
<td></td>
</tr>
<tr>
<td>$34</td>
<td>350</td>
<td>$11,900</td>
<td></td>
</tr>
<tr>
<td>$30</td>
<td>400</td>
<td>$12,000</td>
<td></td>
</tr>
<tr>
<td>$26</td>
<td>500</td>
<td>$13,000</td>
<td>Range where ticket prices and demand generate maximum revenue.</td>
</tr>
<tr>
<td>$22</td>
<td>600</td>
<td>$13,200</td>
<td></td>
</tr>
<tr>
<td>$18</td>
<td>700</td>
<td>$12,600</td>
<td></td>
</tr>
<tr>
<td>$14</td>
<td>800</td>
<td>$11,200</td>
<td></td>
</tr>
<tr>
<td>$10</td>
<td>900</td>
<td>$9,000</td>
<td></td>
</tr>
</tbody>
</table>

**Elasticity** is a concept used in economics to calculate how much demand (or supply) changes as price changes. The Elasticity of Demand is expressed as a percentage and is often referred to as being *elastic*, *inelastic* or *unitary elastic*. Arts events tend to be **price inelastic**, meaning if someone wants to see x or y show or exhibit, the price is not the main barrier and they will pay the price posted.
Summary on Microeconomics and the Arts

An arts manager needs to become familiar with basic concepts from the field of microeconomics in order to help their organization wisely manage their revenues and expenses. Tracking audience or membership purchasing patterns using a CRM (Ch 9), coupled with strategically applying principles from behavioral economics (p. 398-99), can be the foundation for strategically pricing services and programs.

Balancing the mission and organizational goals and keeping the cost reasonable is one of the many unique demands facing an arts manager. The “bottom line” is the mission, but without resources the chances of success are limited.

Managing from a knowledge of microeconomics can also help mediate the stress of the risks of an event not doing well (low attendance or few tickets sold) and which may cause the organization having a deficit. Decisions made from an understanding their “market” can help support the long term fiscal health of the arts organization.
Financial Management and the Arts

An arts manager can effectively use the concepts from microeconomics but they must also understand how to wisely manage where the often limited finances are going to support the programming and people working for the arts organization.

A key function needed in an arts organization is that of a business manager. Small organizations often struggle with identifying the funds for this position and the job duties fall to one or more people who must quickly learn the basics of financial management. Someone needs to carry out the role of the business manager and should be asking such questions as:

- How will we pay for our continuing programs or events?
- What will be the long term impact of starting a new program?
- Do we truly understand the full costs of this activity?
- What if the programming we plan doesn’t bring in the revenue we projected?
- What are the risks we face if we decide to do plan A, B or C?
No matter the size the organization, developing a Financial Management Information System (FMIS) can be an important first step in staying on top of the numbers.

The FMIS consists of the Operating Systems (e.g. accounting system, sales, inventory system and fundraising processes), an Information System level where all the data is processed, reported, shared and analyzed and then used at the Management System level to inform planning and decision making in the arts organization.

Planning and budgeting are also part of the FMIS (see Fig 5.1, 9.5)
**Accounting** is the process of identifying, collecting, analyzing, recording and summarizing the business transaction of an organization.

The keeping of the “books” and the “journals” and “ledgers” are typically done by the bookkeeper. All these terms are still used today, but they apply to modules within computer software used by most arts organizations.

**Cash-based accounting** is a system of recording receipts and expenses when they are received or expended.

**Accrual-based accounting** recognizes receipts and expenses when they are incurred and shows future commitments of the organization. The preparation of financial statements are made easier because future revenues and expenses can be shown.
Accounting System to Statement of Activity & Balance Sheet

In addition to the accounting system producing weekly and monthly budget reports on the income, expenses and commitments of the arts organization, the information also feeds into annual two major reports – the statement of activity (income statement) and the balance sheet.

**Accounting System**

**Revenue:**
- Income
- Receivables
- Grants
- Donations
- Other sales

**Expenses:**
- Payroll
- Payables
- Insurance
- Operations
- Facilities

**Statement of Activity**

| Revenue | Expenses | Rev. – Exp. = Net Assets |

**Balance Sheet**

| Assets | Liabilities | Net Assets |

Both the Statement of Activity and the Balance Sheet draw information from the accounting system.

\[
\text{Assets} = \text{Liabilities} + \text{Net Assets} \\
\text{Net Assets} = \text{Assets} - \text{Liabilities}
\]
In nonprofit accounting the term net assets or surplus replaces “profit.” In this example, the net, surplus or profit is $40,000 and is arrived at by subtracting the total expenses from the total revenues.

At the beginning of the fiscal year the organization had a significant “profit” from the year before, a total of $293,438.

The operating fund ended the year with a deficit of $(135,128). The Gala Fund netted $97,228 this year and started with $125,809 from last year. The board made a fund transfer so the operating budget ended with a surplus.
Quick Review of Balance Sheet

The Balance Sheet reflects the financial health of an organization at a specific date. The total assets start with most "liquid assets such as cash to assets that can be converted to cash at some point. The same timing applies to liabilities (what the organization owes) with current fiscal year liabilities listed first.

This example shows an organization that increased its assets from the previous year at $231,000 to $427,670 this year.

The total liabilities increased to $93,732 but net assets increased to $333,938 so the organization is in fairly solid financial shape. The Temporary Restricted Assets need to be considered in the financial snapshot. Only $168,938 of the total net assets are not restricted.
Financial Assessment Tools

In addition to monitoring weekly, monthly and quarterly budget reports and annual financial statements, an arts manager can also develop a set of ratios which help quickly identify budget trends or warning signs. The ratios shown are for examining the assets and liabilities and expenses. However, other operational ratios can be developed for just about any area.

A few other ratios might be the relationship between singles ticket sales and subscription sales and total ticket revenue. A museum could track increases or decreases in the ratio of the cost of servicing a member versus total membership revenue over a 5-year period.

### Ratio Analysis - Theater Company

1. **Ratio of Expendable Assets to Total Liabilities**

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Last Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expendable Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>$326,812</td>
<td>Cash $144,000</td>
</tr>
<tr>
<td>Accts Receivable</td>
<td>$37,426</td>
<td>Accts Receivable $12,000</td>
</tr>
<tr>
<td><strong>Total Liabilities</strong></td>
<td>$364,238</td>
<td>Assets $156,000</td>
</tr>
<tr>
<td>Liabilities</td>
<td>$93,732</td>
<td>Liabilities $48,000</td>
</tr>
</tbody>
</table>

Current Year: 3.89

Last Year: 3.25

Comment: In the current year the organization had fewer liabilities in relation to its assets. The ratio of expendable assets to total liabilities is slightly higher.

2. **Ratio of Expendable Net Assets to Total Expenses**

<table>
<thead>
<tr>
<th></th>
<th>Current Year</th>
<th>Last Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Expendable Net Assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Assets</td>
<td>$333,938</td>
<td>Net Assets $183,000</td>
</tr>
<tr>
<td>Expenses</td>
<td>$2,759,700</td>
<td>Expenses $2,607,881</td>
</tr>
</tbody>
</table>

Current Year: 0.121

Last Year: 0.070

Comment: In the current year the organization increased its net assets in a higher ratio to expenses than in the previous year.

NOTE: Refer to Fig. 10.10 and 10.11 for numbers used in the above ratios.
Managing Finances and the Economic Dilemma

It takes acquiring skills in financial management and then practicing those skills to help keep an arts organization fiscally healthy. The quest for enough sales revenue and gifts and grants to keep going year after year is ceaseless.

Arts managers and their organizations become very adept at making a little go a long way. However, general cost increases related to inflation often outpace the increases in revenue, which puts further financial strain on the organization. In addition, the basic programming done year in and year out settles into a pattern that allows for a balance budget, but fails to generate new revenues for new programs or in creating endowment funds.

In fact, many arts organization do not have sufficient cash reserves to operate more than a few weeks or months. Many organizations are operating with razor thin margins and any significant drop in any revenue stream can have calamitous results. In the next two chapters we will see how effective marketing and fundraising become financial survival tools.