# The Potential Economic Impact of Proposed Arts Tax in Greater Philadelphia

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# Abstract

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#### I. Introduction

The ongoing 2007 financial and economic crisis spurred politicians to take drastic measures, ranging from legalized extortion to withholding wages, to balance state and local government budgets. In September 2009, Pennsylvania state legislature proposed an expansion of sales tax to include non-profit cultural performances and venues, to generate nearly \$100 million in tax revenue. While the strongly criticized "arts tax" was ultimately struck from the 2009 budget bill, it is of political, cultural, and economic interest to study the potential negative economic impact of the proposed tax or in-kind taxes in the future in Greater Philadelphia.

It is posited that the consumption of the performing arts depends on its own price, price of substitute entertainment, consumer income, and quality of arts. A 6-8% arts tax in Greater Philadelphia will hike ticket prices, make substitute entertainment such as movies and sports, which were not in the proposed tax extension, more monetarily competitive, reduce consumer disposable income, and result in lower quality of arts due to loss of revenue. These factors have a negative impact on arts consumption, a \$1.3 billion expenditure in the region, according to *Arts and Economic Prosperity III*.

The demand for performing arts based on either income or substitution is arguably elastic. Hence, any tax extension will result in the reduction of disposable income and consequently the net loss to the economy, even with consideration to increased tax revenue. Throsby (1994) stated some performing arts are perceived as luxury items and increasing consumption of the arts over the long term is linked with education, which in turn is a significant income determinant. Hence a positive association can be established between the attendance at the performing arts and the disposable income of consumers. Empirical studies of demand for arts over the years have been broadly consistent with the observations. Withers (1980) found a full income effect of 2.7 using

<sup>&</sup>lt;sup>1</sup> Senator Nelson from Nebraska withheld his crucial vote for a 2009 health care reform bill until late December a special provision exempting Nebraska from ever being part of the Medicaid reform being incorporated into the bill, costing taxpayers from rest of the Union millions of dollars every year. In July 2009, the State of California paid its employees IOUs (or registered warrants in its official form) instead of cash due to the inability of the state to meet its financial obligations.

data covering all U.S. performing arts from 1929 to 1973.<sup>2</sup> Given the wide range of consumption substitutes for arts, such as movies and books, cross-elasticities have been found significant. For example, Gapinski (1986) found demand elasticities to be always positive and ranging from 1.43 to 2.78, with respect to substitute price within arts groups in London throughout 1970s.

The effect of ticket price on demand is more complicated. A pioneering study by Moore (1966) found the inelastic price demand for Broadway performance to be between -0.33 and -0.63. Later studies set around the world and in different time periods largely confirm the result. However, this statistic neither proves that levy tax will increase overall economic expenditure, even assuming 100% of any new tax will be remitted to cultural venues, nor does it warrant the notion that non-profit cultural entities can simply raise their ticket prices to increase revenue and meet their most dire budget needs.

Numerous studies (e.g. Felton, 1992) found prices elasticities within arts companies to vary widely, from almost completely inelastic to greater than -1 in absolute terms. Second, earned income from sales is only part of the total cash inflow for a cultural entity. Other sources are corporate sponsorship, philanthropy, endowment, and government funding. While an increase in ticket price may result in higher income from sales, it would reduce donation to the arts, as one of the major motivations by patrons is to keep ticket prices at levels accessible to all individuals. Government funding and corporate sponsorship may also decrease due to a smaller and more affluent audience group. Many studies document the quandaries faced by arts firm managers (e.g. Lange and Luksetich, 1984). In the light of the proposed arts tax, some managers would rather keep the ticket price unchanged for the customer and remit a portion of ticket revenue as a tax to Harrisburg.<sup>3</sup>

The issue of overall potential economic impact of an arts tax in greater Philadelphia is therefore, an empirical one, given the potential for mixed outcomes based on individual income, substitutes, and price effects.

Using data from Greater Philadelphia Cultural Alliance, Census Bureau, and Bureau of Labor Statistics, we are assessing the potential economic impact of the proposed arts tax in

<sup>&</sup>lt;sup>2</sup> Although such effect is ameliorated by leisure price effect due to the time spent by customers.

<sup>&</sup>lt;sup>3</sup> Philadelphia Inquirer, September 20<sup>th</sup>, 2009.

Greater Philadelphia. We will analyze net changes in economic activity and employment under two scenarios with an arts tax in place. In the first, the tax is added to ticket cost, resulting in higher ticket prices and potential lower expenditures by audiences. The second scenario will involve no change in ticket price but lower expenditure by arts organizations. We will also attempt to answer additional questions such as whether arts tax disproportionally affects disadvantaged groups such as low-income households, senior citizens, and women.

We will provide data sources and descriptive statistics in Section II. Section III lays out models and methodology. Empirical results and discussions can be found in Section IV. Section V concludes our study, discusses potential policy and business implications, and provides potential future related research topics.

### II. Data and Descriptive Statistics

## III. Models and Methodology

Depend on data availability:

Demand = f [admission price, disposable/full income, price of leisure, price of substitutes, venue reputation and quality (% of share of all attendance, % wage cost among total wage cost in 177 organizations surveyed, performance production cost)]

The main works which guided the model includes those undertaken by Moore (1966), Withers (1980), Gapinski (1984, 1986), Felton (1992), Ekelund and Ritenour (1999), and recently Werck et al. (2008) and Ziba (2009). They provide quantitative ways of measure disposable/full income, price of leisure and price of substitutes. Werck and Heyndels (2007) provided foundations for three objective quality indicators as control variables for a more comprehensive empirical analysis of demand for non-profit arts.

Demand can be annual surveyed individual household spending on arts, or individual 177 organizations' attendance rate/revenue corresponded to the individual customer survey.

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