

Baumol's Disease in America and Russia J. Dennis Rich, PhD
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In 1966, William J. Baumol and William G. Bowen published *Performing Arts – the Economic Dilemma*. Subtitled *A Study of Problems Common to Theater, Opera, Music and Dance*, the book begins with the statement that “In the performing arts, crisis is apparently a way of life.”¹ In their important work, Professors Baumol and Bowen described a situation in which the productivity of the general economy has risen, historically, at a compound rate of 2.5 percent per year, thus doubling labor productivity every 29 years. At the same time, the productivity of the performing arts has risen very little. Today, just as in Mozart's time, it takes four instrumentalists to play a quartet. *Hamlet* still requires nineteen actors; and orchestras require 70 or more players to perform, as they have for years.

In Russia in the 1980s and 1990s, research on productivity in the performing arts was conducted by A. Rubinstein² and A. Dymnikova³. In the early 1980s art and culture were under Soviet state control. When the Soviet regime collapsed in 1985, all cultural institutions began to experience a transition period, which continued to the end of the 1990s. Both Rubenstein and Dymnikova discovered that labor productivity in theaters in the Soviet time and during Perestroika was lower than the average productivity for other sectors in Russia, improving little over these decades.

More recently, in his 2012 book, *The Cost Disease: Why Computers Get Cheaper and Health Care Doesn't*, Baumol wrote:

The cost disease asserts that the costs of health care, education, the live performing arts, and a number of other economic activities known as the “personal services” are condemned to rise at a rate significantly greater than the economy's rate of inflation, as

¹ William J. Baumol and William G. Bowen, *Performing Arts – the Economic Dilemma* (Cambridge, Massachusetts and London, England: The M.I.T. Press, 1966; reprint 1967) 3.

² Alexandr Rubinstein. Introduction to the Economics of the Performing Arts. Moscow. 1990.

³ Anna Dymnikova. Management of Culture in the Market Economy. St. Petersburg. University of Economics and Finance, 2000.

indeed they have throughout the period for which data are available. This is so because the quantity of labor required to produce these services is difficult to reduce.⁴

Nonetheless, and not unreasonably, artists expect their incomes to rise with the rising general standard of living. Since arts productivity is rising slowly or not at all, arts organizations are unable to meet their expenses from earned income. The dynamic of slowly increasing productivity and rapidly increasing costs has created what Baumol and Bowen called the "income gap"⁵ and later "cost disease."⁶

An understanding of this "gap" helped to give rise to both non-profit institutions (especially in the United States), state-owned institutions (mainly in Russia) and to arts management as a profession. Professors Baumol and Bowen observed that the income gap is almost universal in the non-commercial performing arts and that financial pressures created by the income gap can be a significant threat to the quality and scale of operations in performing arts institutions.⁷ Further, the economists suggest that in the United States, "these financial pressures are here to stay, and there are fundamental reasons for expecting the income gap to widen steadily with the passage of time."⁸ Add to this the fact that in America, government subvention of the performing arts has been minimal, totaling 5% or less of total income. It is different in Russia, where the government funding of some theaters and orchestras is close to 100% of contributed income, and about 70% of total income.

So why not simply raise prices to keep up with costs? Messrs. Baumol and Bowen identify three factors that prevent this:

1. the disinclination of individual arts organizations to raise their prices, on moral grounds;
2. the place of the arts in the ticket purchaser's hierarchy of necessities; and
3. the forces of competition.⁹

⁴ William Baumol, J.; Malach, Monte; Pablos-Mendez, Ariel; Wu, Lillian Gomory . *The Cost Disease: Why Computers Get Cheaper and Health Care Doesn't* (New Haven, Yale University Press. Kindle edition, 2012. Kindle location 103-106.

⁵ Ibid., 150-157.

⁶ Hans Abbing, "Let's Forget about the Cost Disease (version July 2005), <http://www.xs4all.nl/~abbing/>.

⁷ Baumol and Bowen, p. 154-157.

⁸ Ibid., 161-162.

⁹ Ibid., 172.

A. Rubinstein added to this list a fourth factor, price elasticity, which is related to Baumol and Bowen's "hierarchy of necessities"¹⁰. According to his concept, ticket prices in the performing arts are very sensitive and demand for performances is very elastic in relation to ticket prices. Any increase in admission costs would cause a drop in attendance and as a consequence, a decrease in income from the box office. Over the years, Baumol has repeatedly advocated for alleviating, if not curing "cost disease" through higher subsidies for the arts.¹¹ In Russia A. Dymnikova and A. Rubinstein have been advocating for raising subsidies for the performing arts for the same reasons¹².

A key question is whether Professors Baumol and Bowen were correct in their prediction that the income gap, as a percentage of expenditures would continue to widen. Let us consider the non-profit performing arts.

U.S. Orchestras: Earned to Contributed Income Ratios

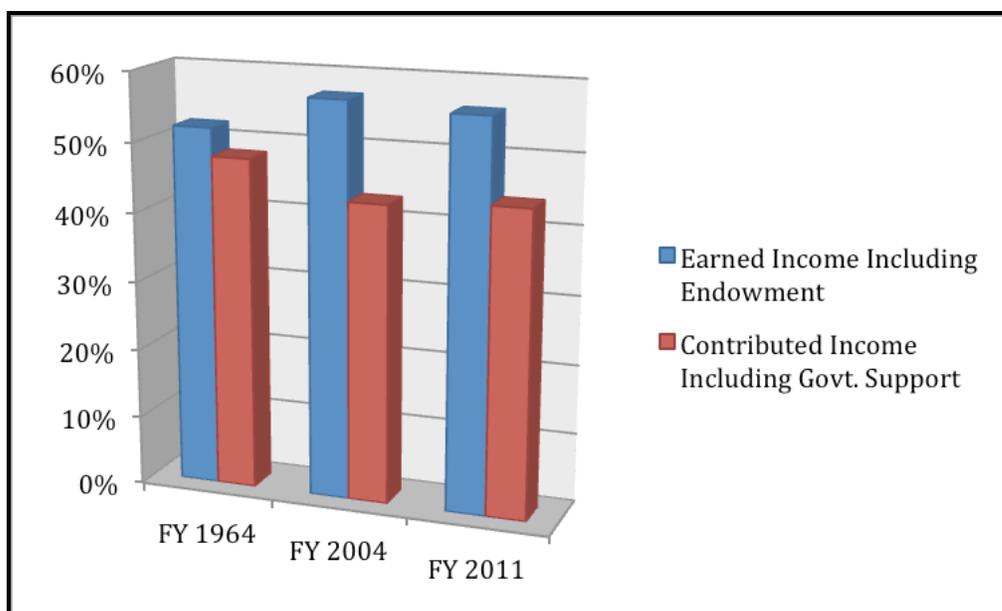


Figure 1 (Source League of American Orchestras)

The chart in Figure 1 shows that over a forty-seven year period, the amount of earned income actually increased from 52% to 57% in 2004 and 56% in 2011, if one includes endowment income. If

¹⁰ Rubinstein, 146

¹¹ Abbing, 5.

¹² Rubinstein, 147; Dymnikova, 42.

you do not count endowment income, the chart shows 45% earned and 55% contributed – still not the “steadily widening income gap that the authors suggest should have occurred over a 40 year period. And, despite the economic downturn, little has changed from 2004 to the present.

Even more interesting, the number of professional orchestras in the United States grew to 350 over the more than forty-year period. However, over the past twenty years, of 350 professional orchestras, seventeen were forced to cease operations, a failure rate of 0.2% per year. Still, the Philadelphia Orchestra recently declared bankruptcy. The Detroit Symphony Orchestra is emerging from a bruising, six-month strike; the orchestras of Honolulu and Syracuse have folded in recent months, and the Brooklyn Symphony and the Nashville Symphony are facing bankruptcy and possible closing. Many communities are left wondering, “what's the prognosis for my local symphony?” Historically most of the communities that lost their orchestra revived it or started a new one¹³.

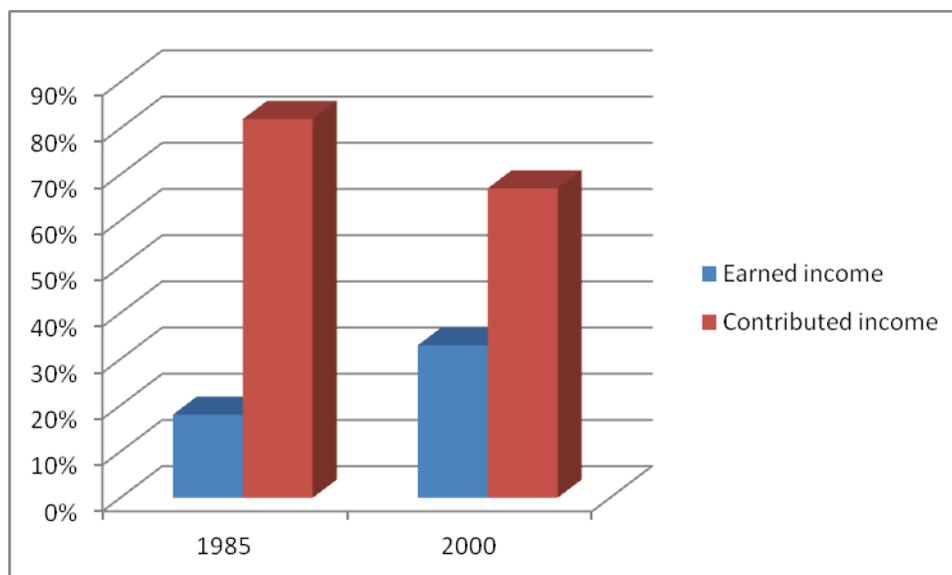
Until recently, it appeared that “cost disease” was in remission in the United States. Nationwide orchestral operating revenue rose 8% while expenses rose 7% and orchestral deficits dropped from an average of 2.7% in FY 2002 to 1.1% in FY 2004. However, in 2005, the average orchestra deficit was \$193,000. Just four years later, in 2009, it had skyrocketed to \$697,000. In 2008, 50% of American orchestras reported deficits; the very next year, 2009, that number had increased to 70%.¹⁴ Orchestras are asking musicians to take pay cuts, shortening performance seasons, and reducing benefits. With the weakened economy, Baumol’s disease seems to be back and stronger than ever.

In Russia there is a similar trend with orchestras. Their earned income grew from 18% in 1985 to 33% in 2000 (see fig. 2). Contributed income, including government funding, dropped from 82% in 1985 to 67% in 2000.

¹³ Facts and figures regarding symphony orchestras are from the American Symphony Orchestra League’s *Music Matters* available at their website <http://Sympohony.org>.

¹⁴ “Orchestras at a Crossroads,” by Jesse Rosen in *Polyphonic.Org*, <http://www.polyphonic.org/article.php?id=249&page=1> accessed November 1, 2011.

Figure 2: Earned vs. Contributed Income for Orchestras in Russia



Source: Data of Ministry of Culture, 2012.

In Soviet times most orchestras, theaters and other cultural institutions were state-owned and the government regulated their main activities and supported the basic upkeep, e.g. maintenance of buildings and collections, communal charges, heating and lighting¹⁵. All earnings and expenses of cultural institutions were state controlled. During this time, the government spent significant sums of money maintaining and developing arts and culture with about 2% of the annual Federal budget allocated for this purpose. In 1985 the period of Perestroika began and Gorbachev declared a transition from Communism to a market economy. The cultural institutions received more freedom to control and plan their activities e.g. managing repertoires, raising ticket prices, and distributing funds. To encourage fund raising from private sources the government introduced tax benefits for corporate donors (5% of earnings before tax for donations to state nonprofit cultural institutions and up to 3% for charitable donations that were given to restore objects of cultural heritage). In addition, state and municipal nonprofit cultural institutions received various tax benefits such as exemption from land and property tax and also VAT. Furthermore, tax benefits were established for utility payments, rent, customs duties and for securing loans with government backing.

¹⁵ E. Shekova. Changes in Russian Museum Attendance: 1980-2008. In: Museum Management and Curatorship. 2012. Vol. 27. p. 64.

The transition period (1985-2000) was a difficult time for cultural institutions because the government substantially cut arts and culture funding from 1.96% of the annual Federal budget in 1980 to 0.48% in 1998 (table 1).

Table 1.

Arts and Culture Spending as Per Cent of the Federal Budget in Russia between 1980 and 1999

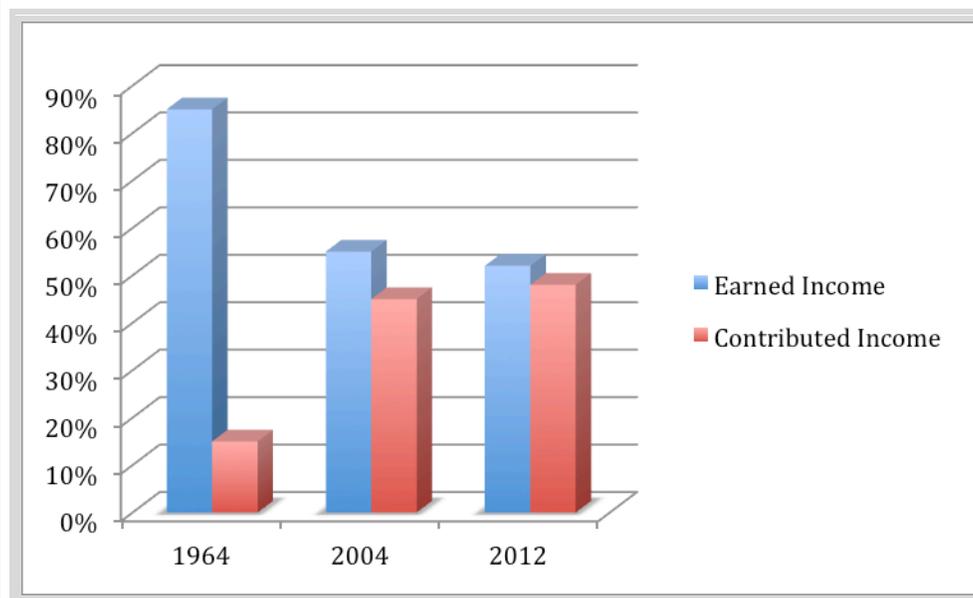
1980	1995	1998	1999
1.96	1.0	0.48	0.65

Source: Federal Budget in Russia 2001, 63-67.

In spite of lower government funding for the arts and culture in Russia, the number of cultural institutions increased. For example, despite the transition period in the Russian economy, the number of orchestras grew. Since 1990 the number of orchestras rose from 115 to 127 in 1997¹⁶.

The state of non-profit theater in the USA suggests that Baumol and Bowen were right when they wrote and are still right today.

Figure 3: Earned vs. Contributed Income for Theaters: (Source TCG)

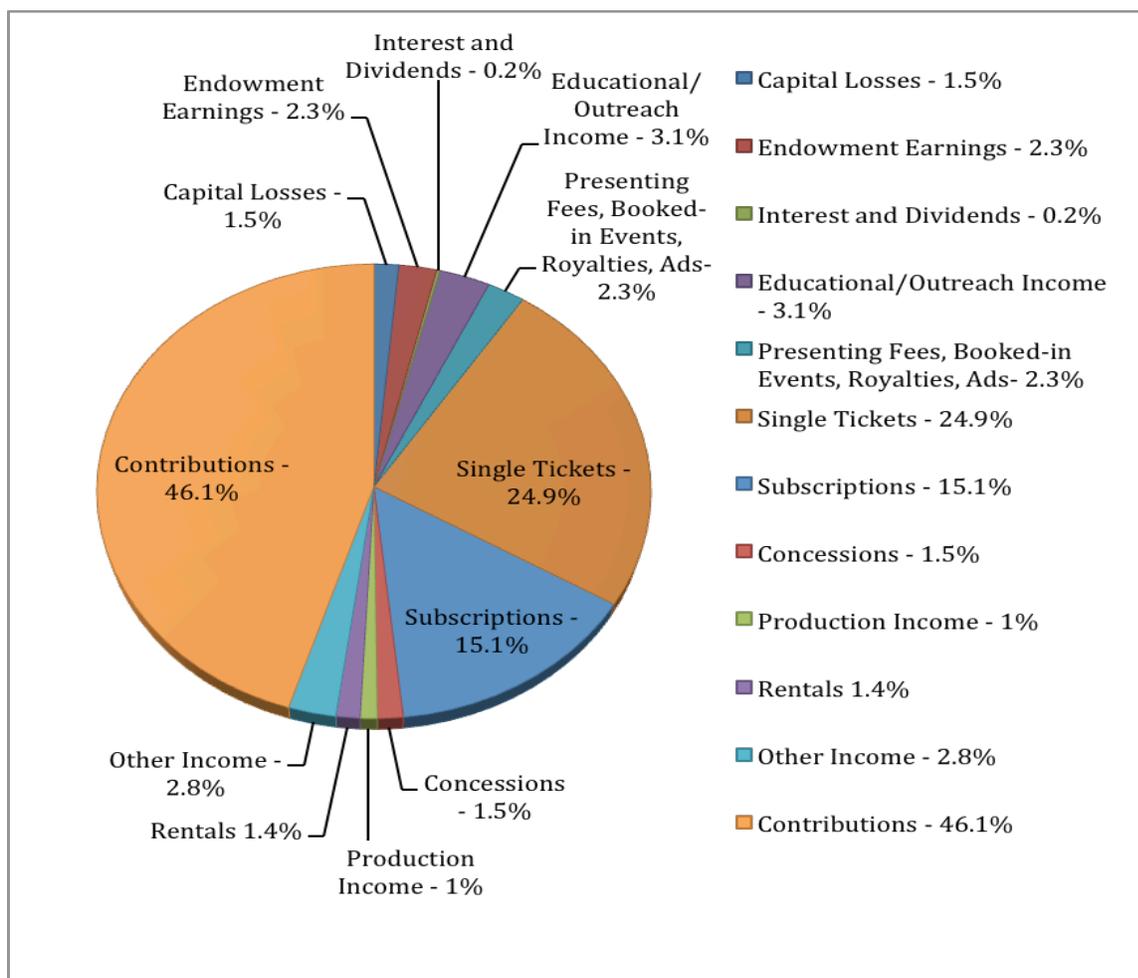


In 1964, the income gap was about 15%; today, looking at TCG trend theaters, the gap in 2012 was 48%¹⁷, up from 45% in 2004. Still, the number of professional theaters operating in the US has

¹⁶ Russian statistical annual report, Moscow, 1998.

increased substantially over the last forty years. A similar situation has been seen in Russia. Since 1985 the number of theaters has increased from 340 to 556 in 2008¹⁸. In the United States, since 2004, earned income has hovered around 55% of budget. However, if all income is considered, we see that a typical theater had income from all sources of 99.2% of expenses, reflecting a generally healthy condition, but the small shortfall should be noted. Still, the chart suggests that American theater managers and governing boards have understood and responded effectively to the income gap.

Figure 3: U.S. Theater Income as a Percentage of Expenses with Earned Income Detail¹⁹



¹⁷ *Theater Facts 2004, 2010, 2012.*

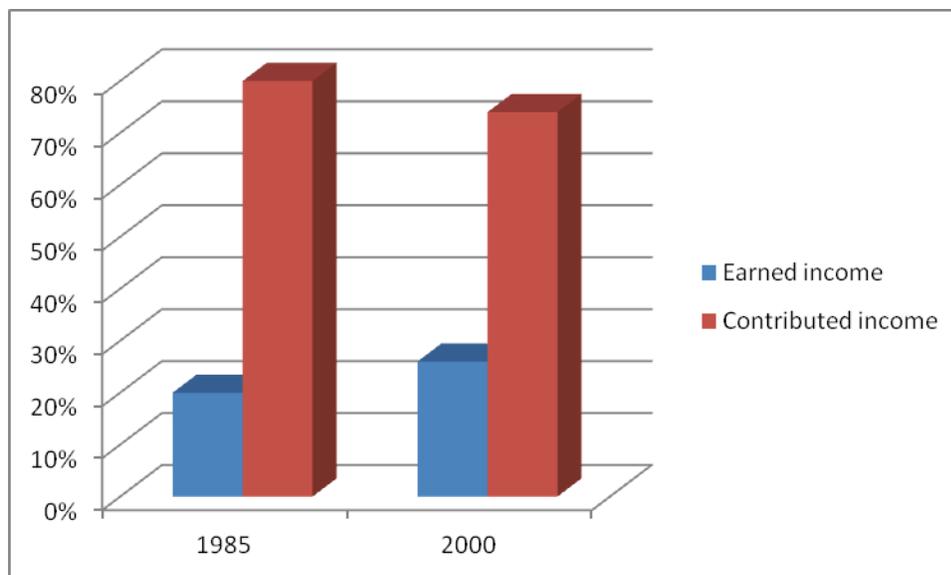
¹⁸ E. Shekova. *Management of Cultural Institutions in Modern Conditions: Textbook.* St. Petersburg, Publishing house Lan, 2014, p. 15.

¹⁹ *Theater Facts, 2012.*

In the U.S. a distressing trend is the movement towards single ticket sales as the largest source of earned income. Still, despite an increased income gap, the overall income picture suggests that the theater in the USA continues to be healthy. During FY 2012, the industry contributed an estimated \$2 billion to the economy in the form of direct compensation and payment for services and goods. The research indicates that 36.7 million patrons attended the theater, up by more than 5 million from 2010, and that 123,000 artists, administrators and technical personnel were employed.²⁰ Actor salaries were 3.4% higher than inflation in 2012. At the same time, overall growth trailed inflation by 6%, which suggests that financial challenges are still present.²¹

In Russia the situation with theaters is a bit different than in the USA. The income gap dropped from 80% in 1985 to 74% in 2000 (fig.4). (The reported data for Russian theaters includes opera and dance.)

Figure 4: Earned vs. Contributed Income for Theaters in Russia



Source: Data of Ministry of Culture, 2012.

²⁰ *Theater Facts 2012*, p. 5.

²¹ *Theater Facts 2012*, p. 14.

In 1985, the disposable income of an average Russian family was very low and hardly covered their basic needs; so frequent theater visits became unaffordable. However, many changes took place in the transition period, which allowed theaters to develop along different lines. Major Russian theaters responded to the competition for customers by making surveys of their audience, providing new plays, and improving the quality of their services. By introducing departments that are responsible for activities such as marketing, public relations, fundraising, merchandising, and catering, these cultural institutions became more customer-focused.

Since 2000 there has been a stabilization period for Russian cultural institutions with a positive trend in attendance. Several factors could have contributed to the recent increase, e.g. more disposable income of Russian citizens, expansion of theater repertoires, co-promotion events. Also, theaters are now targeting particular groups with special performances. By developing a stronger relationship with their audiences, theaters have increased the loyalty of their customers and converted them to regular visitors. Those theaters which have opened friends clubs, charitable foundations, coffee and gift shops and enlarged their Internet facilities have been able to interact more effectively with their customers which has in turn enabled them to become more involved with the theater. All that helped those theaters to decrease their income gap. Still, the income gap continues, as does the very high level of dependency on government subvention.

The condition of American Dance is also interesting. As with theater, the income gap has increased over the forty-plus year period since Baumol and Bowen discovered the “disease.”²² What the data reveals is that volunteers most closely connected with a dance organization are also the biggest contributors with contributions growing by 69% in the five-year period between 1994 and 1999. Earned income has decreased since 1964, and has held steady at around 50% of budget, with 29% coming from ticket sales²³ and the remainder coming from other sources of earned income such as classes and merchandise. As with other performing art forms, dance in the USA continues to experience Baumol’s “disease” and its treatment comes from a diverse body of donors and supporters.

Opera in the USA seems to be the only performing art that brings in much less earned than contributed income. In 2002, opera attendance figures show that 6.6 million adults attended at least one opera performance.²⁴ During the 2009-2010 season, 6.7 million adults attended at least one

²² Facts and Figures: Snap Facts March 2004: Field at a Glance -- Dance, Danceusa.org.

²³ Facts and Figures: Snapshot of the Field 2012-- Dance,”Danceusa.org.

²⁴ “Quick Facts About Opera,” Operaamerica.org

opera.²⁵ Here, it would appear that “Baumol’s Disease” is rampant, but there are now 122 professional opera companies in the US and the audience continues to diversify with 11.5% of the opera audience representing ethnic minorities. Interestingly, 11 million American adults viewed or listened to opera via broadcast or recorded media in 2008. The opera audience and industry is, despite the income gap, slowly growing.

The exact condition of opera and dance in Russia cannot be separated from the condition of the theater. It would appear that these art forms are growing along lines similar to spoken word theater.

So what does it mean overall? Clearly, the earnings gap is still here and still substantial. While the number of Americans and Russians attending live performances has increased in recent years,²⁶ pay for artists and job security have scarcely improved since 1970. Performing artists continue to dedicate themselves to their art despite this fact. Indeed, many may be counted among the projected 67% of Americans who participate in unpaid hands-on arts activity.²⁷

Arts organizations are doing well in Russia, but the salaries of artists are lagging behind other forms of employment. In Russia, according to the statistics, real wages in the arts have been declining since 1940 (see table 2). In 2000, people in the arts earned about the half of what they could have earned in other industries. This is a perfect example of treating Baumol’s disease at the expense of the artist.

²⁵ “Quick Opera Facts,” Operaamerica.org

²⁶ “The Performing Arts: Trends and Their Implications,” Rand Research Brief from *The Performing Arts in a New Era* by Kevin McCarthy, et al published by Rand – see http://Rand.org/pubs/research_briefs/RB2504/index1.html; See also Goskomstat of Russian Federation, 2012.

²⁷ *Informal Arts: Finding Cohesion, Capacity and other Cultural Benefits in Unexpected Places*, Research Report to the Chicago Center for Arts Policy at Columbia College, June 2002.

Table 2: Salaries Rate in the Arts Compared to the Average in the Economy in Russia

1940	1960	1985	1990	1995	2000
92,7%	70%	69,1%	62%	60,6%	54,7%

Source: Goskomstat of Russia, Moscow, 2012.

So, one reason why the “disease” is rarely life threatening to performing arts institutions in both Russia and the USA is because these organizations have managed, to some extent, to control costs. Moreover, if we look at the income gap over time, it appears to fluctuate – sometimes increasing and sometimes decreasing, but never going away.²⁸

There is a good deal of evidence that some measures undertaken to control cost disease have been at the expense of quality or at least at risk to the quality of performance. These include²⁹:

1. Reducing real wage growth
2. Choosing productions or pieces that require fewer artists and/or fewer scene changes
3. Hiring fewer guest artists
4. Avoiding new works to avoid royalty payments to creators
5. Cutting Rehearsal times
6. Developing productions in low-cost locations
7. Producing lavish programs featuring celebrity artists to attract large audiences (blockbusters)
8. Producing familiar, traditional programs (“warhorses”) designed to attract large audiences (“The Nutcracker” strategy)
9. Tying primary programming to sales of auxiliary products such as T-shirts, collectibles, etc.
10. Increasing the number of performances of the same production, potentially threatening the rotating repertory system in Russia.
11. Maximizing the audience per performance by increasing the size of performance venues

²⁸ “Financial Situation of Performing Arts Organizations,” Pew Charitable Trusts. P. 92.

²⁹ Ibid, p.92. See also, E. Shekova. *Management of Cultural Institutions*.

12. Targeting niche markets that have predictable, loyal audiences
13. Financing productions jointly with firms in the for-profit and nonprofit sectors collaborating
14. Adopting commercial financing techniques in the non-profit sector such as for-profit subsidiaries or charitable component funds.

According to the Pew Charitable Trust, the income gap is very much present among the American performing arts and nonprofits are subject to the whims of donors and the pressures of the market place. These pressures have increased since the 2008 economic crisis. Still, these very factors may be not only a challenge but also strength.

One of the realities of the performing arts in the United States is the diversity of funding sources. This is also becoming true for Russian performing arts today. Closing the income gap through the generosity of *multiple* funders reduces the concentration of government power and the power of any single funder over the practices of a particular arts institution. A strong private support base gives American arts institutions a freedom of action they would not have if they were dependent upon the government for their funds. It is one of the safeguards in the system guaranteeing artistic freedom. In addition, because US arts agencies rely so heavily on fundraising, they must cultivate donors' attention and goodwill. The philosophical argument continues, "This means a broader constituency for the arts," and, because of the backing of donors, the artist remains relatively free from the commercial distractions of the market place.

Since 1990s the performing arts in Russia also have been funded from different sources. Together with traditional government funding and box office income, cultural institutions have raised money from individuals and corporations as donations, foundation grants, membership, and sponsorship; but the amount of such funding, as a part of total income is on average, quite low; however such support is increasing.

Still, the need to cultivate donor good will has meant that as arts institutions grow in the US and Russia, they tend to become more conservative. Outside of major US and Russian cities, the conformity of repertory increases with institutional size as measured by operating budget and size of house.³⁰ While patronage may contribute to an institution's financial success, it would appear that it also limits creative opportunities. This situation exists in most cities where, for example, there is only one major theater.

In larger cities, the market place is not necessarily a commercial force that challenges artistic freedom and pushes towards the greatest aggregation of cultural consumers. When multiple theaters are present (as they are in New York, San Francisco, Chicago, Moscow, or St. Petersburg, for example), the competition between them seems to encourage creative innovation. In such a situation, competition encourages differentiation as a competitive strategy.³¹ Not surprising, this suggests that arts agencies in larger markets are less risk averse than those in smaller markets.

It also suggests that Baumol's disease, if it is a disease, is harder to understand than it first seems. Today, it would appear that large organizations have learned how to treat the "disease" and very small ones are essentially immune to the malady. It is medium sized performing arts institutions that seem most likely to suffer from the consequences of the income gap.

If one extends the income gap and "Baumol's Disease" to the entire service sector of a nation's economy – hospitals, public schools, law enforcement, etc. – one can see a difference between all services and the arts. To keep providing the same quality of service to citizens, government needs to raise more money through taxation. Consumers have resisted such increases giving rise to the idea that the "disease" is political. Citizens pay more in taxes, but get only the same service they have always received in return. As a result, citizens express concern and see government as bloated and inefficient.

³⁰ Paul DiMaggio and Kirsten Stenberg, "Why Do Some Theaters Innovate More than Others? An Empirical Analysis," *Poetics*, 14 (1985): 107-22. See also, *Goskomstat of Russian Federation, 2012*.

³¹ DiMaggio and Stenberg, p. 116.

For the performing arts however, there seems to be an understanding of the need for support beyond ticket purchases. This is clearly understood in both the USA and in Russia. Perhaps the income gap is not a “disease” but a condition, like a special child in need of extra attention. The performing arts have always operated under financial strain, but with a little help from their friends, they continue to produce wonderful artistic product. If Professors Baumol and Bowen were correct in the diagnosis, American and Russian managers and governing boards have found effective treatment.

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