

ACTIONS TO ATTRIBUTE VALUE TO CULTURAL EQUIPMENT: THE CASE OF A PUBLIC ARCHIVE IN BRAZIL¹

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Abstract

The Public Archive of Minas Gerais (APM) is the oldest cultural institution in Minas Gerais, Brazil, and has essential administrative and cultural roles. The significance or symbolic value communities attribute to the institution and its documentary collections is the subject of interdisciplinary research. A contingent valuation survey was conducted with 366 individuals from October 2023 to March 2024. Findings show that APM is highly valued for its cultural and historical contributions, especially by highly educated individuals, but its administrative and civic importance is underrecognized. Enhancing public communication and governmental support is crucial for APM to achieve its mission fully.

Keyword

Public Archive of Minas Gerais; Culture; Contingent Valuation.

Área temática

Economia da cultura

¹ Work developed within the scope of the project "Economic Valuation and Technological Development in Public Archives," funded by FAPEMIG – Foundation for Research Support of Minas Gerais – Project number APQ 0237-22. This study was financed in part by the Coordenação de Aperfeiçoamento de Pessoal Superior – Brasil (CAPES) – Finance Code 001.

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1. Introduction

The Public Archive of Minas Gerais (from now on referred to as APM) is the oldest cultural institution in Minas Gerais, Brazil. Archival institutions are secure repositories for documents and where the information is organized. For this reason, it allows the visualization of extensive historical series on a subject and the understanding of past experiences and their repercussions on the present time. At the same time, it performs administrative functions related to the management of documentation produced by state governance. Historical archives facilitate the guarantee of civil rights and provide enjoyment and inspiration for new technological, artistic, cultural, and academic creations.

However, despite impacting these areas, they are not well-known to the community. On the other hand, heritage specialists associate them with diffuse values such as well-being or community belonging, and the role of these institutions in social, political, economic, and technological development is not well understood. Additionally, the duality between cultural and administrative functions is reflected in a lack of understanding of their mission, even within the public administration and, consequently, in the government's allocated financial resources. Given this reality, it would be helpful to present the institution's benefits to society and individuals to ensure the continuity of funding.

The significance or symbolic value communities attribute to the cultural role of historical archives and their documentary collections is the subject of research conducted by specialists in cultural economics, archives science, and cultural heritage conservation. Following up the contemporary approaches, the aim is to understand how the paradigm of social value assigned to cultural heritage applies to archival heritage in particular and, ultimately, how this value can contribute to integrating archival institutions into the economic, technological, and social development agenda of local or national communities. Among other investigations, the contingent valuation methodology is applied to evaluate how society perceives APM's services and goods.

Considering this issue, a survey was conducted with 366 individuals through electronic forms⁵ and in-person interviews from October 2023 to March 2024. The contingent valuation results of APM are presented in various sections of this paper. The following section provides a brief literature review on contingent valuation and an introduction to the institution. Next, the fourth section details the methodological approach. Subsequently, the results are presented, encompassing a descriptive analysis and the outcomes of the probit model. Finally, some concluding remarks are elaborated in the final section.

2. A brief review of the economic literature on the valuation of cultural goods

When spaces or cultural institutions cannot be financially valued, the contingent valuation method has been used to understand how local communities economically demand and perceive them. It is based on willingness to pay or receive to estimate the benefits through pricing services (THROSBY, 2019).

Since the early emergence of cultural economics as a research field in the 1960s, one of its primary focuses has been on arguments pertaining to public support for the arts and culture (THROSBY, 1994 apud BILLE, 2024). The prevailing understanding is that the principal arguments are grounded in the characteristics of public goods, consumer externalities, and associated market failures. According to Bille (2024), the benefits accruing to the public from culture are typically considered neither rivalrous nor excludable. Referring back to the book "Arts & Economics" by Bruno Frey and Werner Pommerehne, the author emphasizes the option

⁵ The survey questionnaire was approved by the Ethics Committee of UFMG on September 28th 2023; a copy of it can be asked to authors.

value, bequest value, and existence value and additionally introduces prestige value and educational value as positive externalities associated explicitly with arts and culture. These benefits transcend conventional market dynamics (BILLE, 2024).

The contingent valuation method, or contingent valuation (CV), is commonly used in environmental assessment studies and has increasingly been applied in cultural studies, such as in Diniz et al. (2020) and Borger and Belluzzo (2009). The method involves creating a hypothetical market, a contingent scenario, in which the target population reports their willingness to pay (WTP) for the maintenance or improvement of a specific good and/or their willingness to accept (WTA) any externalities associated with that particular good. The method can be developed in three stages: first, a population sample is defined; in a subsequent stage, a description of the hypothetical market is created; and finally, through a question, respondents determine their WTP or WTA.

The economic analysis of cultural heritage emerged as an empirical application of the economics of culture in the 1990s, emphasizing the importance of recognizing the impacts of cultural activities in local or regional contexts. Bille (2024) cites the study of Douglas Noonan. He conducted a review encompassing approximately 130 contingent valuation studies within the realm of cultural economics (NOONAN, 2003). These studies examined a wide array of cultural goods, including archaeological sites, arts, broadcasting, performing arts, heritage, museums, libraries, and sports. Interestingly, none of these studies specifically addressed the particular types of externalities associated with these cultural goods.

Several works are highlighted in this paper. The contingent valuation method has been applied to assess built heritage, cultural circuits (MACHADO et al., 2017), and libraries (FUJIWARA; LAWTON; MOURATO, 2019). In the literature on the valuation of museum goods and services, approaches vary from the maximum willingness to make donations (SANTAGATA & SIGNORELLO, 1998) to the willingness to pay for admission (BEDATE, 2009) or the effects of a day of free entry on the revenue of the facility (STEINER, 1997). Machado et al. (2017) used the contingent valuation method to assess the facilities (museums and cultural centers) of the Circuito Liberdade in Belo Horizonte, and Esperidião et al. (2017) used it to evaluate the Museu da Gente Sergipana. Guarisa et al. (2023), in their study of small and medium-sized music venues in Rio de Janeiro, also apply the method.

There are no studies in the literature on contingent valuation for archival institutions. As mentioned, Fujiwara et al. (2019) applied the method to English libraries in a similar survey. They recognized that these institutions have an important social role as centers of knowledge and educational learning and as open community spaces. The online survey had a sample of 2000 people, including visitors (those who had used the library in the past 12 months) and non-visitors (those who had not used the library in the past 12 months). The questionnaire asked about alternative forms of entertainment and cultural activities, reading habits, preferences for books, e-books, or audiobooks, opinions on government investment priorities (cultural sectors versus other sectors), and sociodemographic characteristics of the interviewee. The critical question was their willingness to pay for library services, even though they were not charged. Frequent readers, users of libraries and similar services, those who advocate government spending on heritage, arts, and museums as a priority, higher-income individuals, and those with children at home were more willing to pay.

As Bille (2024) pointed out, conducting the valuation of cultural facilities is not trivial. The use value is the most apparent benefit to theatres, libraries, exhibitions, and concert halls, and it can be challenging to describe and evaluate the value for non-users. Bille argues that many cultural activities are impure public goods, whereas a privately acquired activity jointly produces a public and a private good. This condition will be the case for quasi-public goods, where the private returns make up the largest share of the value but where there may also be some social returns or externalities related to the consumption of the good. For many cultural

goods, the value of the good is created when consumed, and there will be little to no value without consumption. This characteristic can be seen in many cultural institutions, such as theatres and libraries, and cultural activities like exhibitions or concerts.

3. Historical and Institutional Aspects of the APM

The Public Archive of Minas Gerais was established in 1895 with the purpose of "receiving and systematically classifying all documents related to public law, legislation, administration, history and geography, and the manifestations of scientific, literary, and artistic movements in the state of Minas Gerais" (MINAS GERAIS, 1895, p. 175).

Since its inception, it has been associated with various bodies, such as the Secretary of the Interior, the Secretary of Education, the Governor's Civil Cabinet, and, finally, since 1984, the Secretary of Culture. In 2019, following an administrative reform encompassing all state agencies and secretariats of Minas Gerais, it became attached to the Superintendence responsible simultaneously for museums, libraries, and archives (MINAS GERAIS, 2019). From 2023, after another administrative reform, it began reporting directly to the now-so-called Secretary of Culture and Tourism (MINAS GERAIS, 2023).

Fulfilling its cultural mission as a "place of memory," as highlighted by Pierre Nora (1993, p. 21), the APM stands out for preserving the documentary collection on regional and national history, being a "space for the crystallization and transmission of memory." Additionally, it is part of the Circuito Liberdade, a group of 22 cultural facilities located in the central area of Belo Horizonte.

Although the APM is currently headquartered in the Secretary of State for Culture and Tourism, it maintains the function of managing documents produced by the state public administration, working across all departments to establish criteria and methods for the selection and preservation of documents produced.

In addition to being responsible for the management, preservation, and access to documents created by the public administration since the 18th century, the APM provides advisory and training services in document management and preservation to other administration bodies and municipalities in Minas Gerais, issues various types of proof certificates to citizens, organizes cultural activities such as guided tours of the collection and temporary exhibitions, and maintains active social media accounts to promote the various uses of its collection and to increase its visibility among the public.

4. Methodology

The contingent valuation technique was applied using a questionnaire, following previous experiences in studies such as those by Esperidião et al. (2017) and Guarisa et al. (2023). The data collection instrument aims to capture respondents' cultural habits, evaluation of old or modern buildings to host cultural spaces, level of knowledge about the APM, questions about the value to contribute or donate and justifications for the answers, and finally, sociodemographic characteristics of the respondent. Between October 2023 and March 2024, 366 individuals responded to the questions electronically or in person. The email list of the APM and associated institutions was used for sampling. The questionnaire was also disseminated through the institution's social media and website. In the case of face-to-face interviews, passersby in the vicinity of the facility were randomly selected. Out of 366 respondents, 50 interviews were conducted in person. This sample is representative, given that the APM receives approximately 600 visitors in loco annually.

Resorting to this method implies considering the APM as a public good; by this nature, its existence generates positive externalities in society. In this case, Bille (2024, p. 10) points out:

The assumption is that individuals taking part in cultural activities can be enlightened, connected, and empowered among other virtues that the arts generate. This can take the form of better understanding one-self and other people, changed perceptions, increased creativity, aesthetic understanding, social critique, better moral vision and so on. The expectation is that these effects on the individual will ultimately have a wider impact on the society level (social returns) in the form of, e.g., democracy, diversity, innovation and so on (...), which in turn are important for the aggregate welfare and/or economic growth. From an economic perspective, the increase in, e.g., moral behavior may strengthen social cohesion and collaboration, which have been shown vital for economic performance (BILLE, 2024, p. 10).

Thus, the method is applied to capture the non-use value if these externalities are present. Diamond and Hausman (1993) delineate three categories of non-use value: the potential for the future enjoyment of the good, the bequest value associated with the satisfaction derived from its consumption by others, and values transcending human interaction with a particular good. The respondents are asked how much they would be willing to pay or donate to preserve or enhance a public good. Consequently, the method aims to capture consumer surplus based on stated preferences, recognizing that a portion of the good's value (non-use value) cannot be realized through market transactions.

Before reading the questions, respondents receive information about the APM and the services provided by the institution to present the project's scope. However, it is known that there are several limitations in assigning this value, as people have little knowledge about the object, no matter how good the description is, and thus have difficulty in stating their preferences.

The contingent valuation method faces criticism, as highlighted by Snowball (2008), who presents various opposing views to the method, including notable biases. First, individuals may struggle to express their preferences in monetary terms, potentially overestimating their stated values. The "Warm glow" phenomenon may be another bias because, in some instances, respondents may seek moral satisfaction by supporting a "good cause," resulting in responses influenced not by market scenarios or personal financial realities. Furthermore, the "embedding effect" bias suggests that respondents may not adequately differentiate between scenarios, potentially indicating a similar contribution for supporting a single venue versus a larger group of venues. "Protest zeros" are another issue when zero is assigned to the contribution or donation, not necessarily because they perceive the cultural good in question as having no value but rather as a form of protest against the hypothetical scenario proposed (GUARISA et al., 2023).

Notwithstanding all the limitations of using the contingent valuation method, the results are described in bivariate or multivariate analyses involving cross-referencing information from the main questions answered by the participants in the survey. Additionally, a probit model was estimated, considering that many values equal to zero were attributed to the willingness to pay or to donate.

The Probit model is a technique for binary response analysis, estimated through the method of maximum likelihood using a set of explanatory variables. Its main objective is to predict the probability of a response, assuming that this probability is linearly related to a set of parameters represented by the function $f(z)$, which varies between zero and one for all values of z .

5. Results

In this section, we present the descriptive analysis and probit model results. Descriptive analysis involves summarizing and describing data to gain insights into its characteristics. It is a foundational step in data exploration, providing a comprehensive overview before more complex analyses are undertaken. In turn, the Probit model is a statistical method for analyzing binary response data. Unlike linear regression models, which assume a linear relationship between the predictor variables and the response variable, the Probit model estimates the probability of the binary outcome using a cumulative distribution function (donate taxes), typically the standard normal distribution (the cumulative distribution function of the standard normal distribution is called the probit function). This model is often estimated using maximum likelihood estimation, where the model's parameters are chosen to maximize the likelihood of observing the given data.

5.1 Descriptive analysis

The survey sample comprises 54.37% females and 67.76% white people, with the modal age groups being 35 to 44 (21%) and 55 to 64 (26%). Approximately 87% of the respondents have at least completed higher education. Concerning the family income bracket, around 12% fall within the ranges of 1 to 2, 2 to 3, 3 to 4, and 10 to 20 minimum wages⁶. Additionally, 51% of the respondents reside in Belo Horizonte, where the APM is located.

Regarding the respondents who have visited the APM and are familiar with the collection (185), 56.22% are women, and 66.49% identified themselves as white, with the predominant age groups being 55 to 62 (33.51%) and 35 to 44 (22.16%). Only 5% of users do not have completed higher education, while 23.24% reported having completed a Ph.D. Regarding the respondents' family income bracket, 12% stated that the family income was up to 2 minimum wages, 31.76% between 2 and 5 minimum wages, and 25.88% with a family income above nine minimum wages. Additionally, 59.46% reside in Belo Horizonte, with the majority concentrated in the city's Central-Southern region (21.62%).

Table 1 provides information on the number of respondents who have heard of the APM, have visited the place, and are familiar with the collection. Of the 366 participants, approximately 82% (299) have heard of the APM. Around 52% have visited the collection (190), and nearly all those who have visited are familiar with the collection (185 respondents). In other words, slightly more than half of the respondents are acquainted with the subject under investigation.

Table 1 – Distribution of the sample according to degrees of knowledge of APM

Questions	No	Yes	Did not answer	Total General
Have you ever heard of APM?	63	299	4	366
Have you ever visited APM?	109	190	67	366
Do you know the APM collection?	5	185	176	366

Source: developed by the authors (2024)

Among the 190 who visited, 129 did so to research documents, 19 to participate in cultural events, 18 for guided tours, 15 to make copies of documents, and nine respondents visited the facility to view the exhibition. Once again, it is evident that those familiar with the

⁶ According to the euro exchange rate on December 29, 2023, one Brazilian minimum wage is equivalent to €243.36.

collection are so primarily because of its primary function: providing documents for research purposes with various aims.

When asked to evaluate the services of the APM (Table 2), the assessment is positive, as responses are predominantly centered around "good" and "excellent." In almost all evaluated services, the rating of "excellent" surpasses "good," except for "comfort," "maintenance of consultation equipment," and "parking convenience."

Table 2 – Evaluation of services at the Public Archive of Minas Gerais

ASPECT	Poor	Fair	Average	Good	Excellent	Total
Signage (entrance, exit, restrooms...)	1	3	22	56	61	143
Comfort (restrooms, lockers, room temperature, ...)	2	2	21	66	54	145
Document preservation	-	1	5	56	92	154
Equipment maintenance (microfilm readers, computers, slide projectors, etc.)	2	2	14	58	54	130
Visitor furniture maintenance	1	2	16	58	70	147
Cleanliness	-	1	5	39	104	149
Lighting	-	1	9	55	83	148
Security	1	3	11	53	69	137
Available information and explanations	1	4	20	47	79	151
Reception	-	3	10	36	101	150
Transportation convenience	1	2	15	44	80	142
Street signage	4	9	16	53	59	141
Parking convenience	9	23	27	37	18	114
Website	2	7	25	47	72	153
Research Guidance	-	5	18	39	83	145
Sending digitized documents	2	3	11	30	84	130

Source: developed by the authors (2024)

The questionnaire presented ten statements to capture the degree of agreement from 299 respondents who had heard of the APM, aiming to gauge the importance they attribute to the institution (Table 3). The only statement that does not have a prevalence of entire agreement is that visiting the APM is fun, as only 42% of respondents fully agreed. In four out of the ten statements, over 90% fully agreed with the assertions. For the remaining statements, agreement ranges from 60 to 80%. These perceptions reaffirm that a significant portion of the respondents attribute importance to the institution.

Table 3 – Respondents' perceptions about APM

Questions	Strongly Disagree	Partially Disagree	No Opinion	Partially Agree	Strongly Agree	Total
The existence of the Minas Gerais Public Archive is important for preserving the memory of facts, people, and past eras	3	0	6	5	285	299
The existence of the Minas Gerais Public Archive contributes to historical research	3	0	5	7	284	299

The existence of the Minas Gerais Public Archive's collection contributes to guiding judicial and administrative decisions	10	6	40	60	183	299
The Minas Gerais Public Archive provides citizens with documents to guarantee their rights	8	9	34	50	198	299
The existence of the Minas Gerais Public Archive's collection contributes to the preservation of the documentary heritage about the history of Minas Gerais	3	0	7	16	273	299
The existence of the Minas Gerais Public Archive's collection contributes to the development of public policies related to heritage	3	2	21	48	225	299
The existence of the Minas Gerais Public Archive is important for the formation of civic awareness	4	2	24	41	228	299
The existence of the Minas Gerais Public Archive is important for the training of people who work with historical collections	3	3	14	31	248	299
The Minas Gerais Public Archive should continue so that other people can have the option to visit it	4	0	6	12	277	299
Visiting the collection is enjoyable	24	13	66	69	127	299

Source: developed by the authors (2024)

Following the example of Bille (2024), the conception of cultural capital by Bourdieu was employed. The accumulation of this capital is associated with participation in artistic and cultural activities. Therefore, the cultural habits indicator presented in Table 4 is a proxy for forming this type of capital.

For activities such as visiting museums or cultural centers, libraries, attending theatre performances, dance shows, and going to the cinema, respondents were asked about their frequency in the past year, distributed into categories such as "monthly," "every three months," "once per semester," "once per year" and "never." A value of 0 was assigned to the response "never," and five was assigned to "monthly." Then, for each respondent, the value of the cultural habits indicator was obtained by summing these frequencies, resulting in a range between 0 and 20.

Based on this indicator, categories were created: "low" from zero to 5; "medium" from 6 to 10; "high" from 11 to 15; and "very high" from 16 to 20. As observed from the analysis of Table 4, respondents predominantly exhibit medium (34%) and high (31%) indicators. Therefore, through the results of the cultural habits distribution, it is observed that a portion of

the interviewees engage in artistic and cultural activities, while another portion exhibits limited involvement.

Table 4 – Distribution of cultural habit indicator categories

Cultural Habit Indicator	Low	Medium	High	Very High	Total
Number	85	125	113	43	366
%	23%	34%	31%	12%	100%

Source: developed by the authors (2024)

When relating ranges of cultural indicators to the frequency of "no" responses to questions regarding knowledge of the APM, it is noted that, in the case of awareness of the facility, the "no" responses are more prevalent among those in lower indicator ranges. Conversely, this monotonic relationship is not observed when mentioning the visit because the number of people who responded "no" increases with the cultural indicator range, except for "very high," where the frequency of individuals who have not visited the archive drops to 10. Regarding knowledge about the archive collection, the number of negative responses is quite low across all indicator ranges. As previously emphasized, most of those who have visited are familiar with the archive, at least to some extent, suggesting a high value of use for the APM (Table 5).

Table 5 – Frequency of "no" responses according to cultural habit indicator

Cultural Habit Indicator	Have you ever heard of APM?	Have you ever visited APM?	Do you know the APM collection?
Low	22	28	2
Medium	26	36	1
High	9	35	2
Very High	6	10	0

Source: developed by the authors (2024)

Two questions about contingent valuation were asked to the interviewees, namely: a) If you knew that the Mineiro Public Archive was facing some financial difficulties and had to reduce its activities or close, would you be willing for the government to use €1.87 per month from the taxes already paid by you to support it?; b) Would you be willing to participate in a donation campaign through the website of €2.43⁷ in one single time? The responses to both are analyzed according to the socio-economic characteristics of the interviewees, indicators of cultural habits, and optimal evaluation of the equipment.

As shown in Table 6, 78% of the interviewees would be willing to authorize the government to use €1.87 of tax payment to support the APM. The reading of Table 7 shows that are predominantly women, white individuals with complete higher education, and those between 55 and 64 years (29%) and 35 to 44 years (23%). It is noteworthy that respondents with lower income levels (1 to 2 minimum wages, 2 to 3 minimum wages, and 3 to 4 minimum wages) are willing to contribute relatively more than those who are better remunerated, except for the range of 10 to 20 minimum wages (13%). This relationship is probably due to the effects of the warm glow.

⁷ This value represents approximately 9% of the minimum wage in Brazil in the year 2023.

Table 6 – Willingness to contribute to APM through taxes

If you knew that the Minas Gerais Public Archive was facing financial difficulties and had to reduce its activities or close, would you be willing for the government to use €1.87 per month from the taxes already paid by you to support it?

	Number	%
No	15	4%
Yes	284	78%
Did not answer	67	18%
Total General	366	100%

Source: developed by the authors (2024)

Table 7 – Profile of respondent interviewees regarding support for the APM through taxes

	Would you be willing to donate €1.87 through taxes?		
	No	Yes	Did not answer
GENDER			
Women	53%	54%	55%
Men	47%	45%	39%
Non-Binary	0%	0%	0%
NR/NS	0%	0%	6%
RACE/ETHNICITY	No	Yes	Did not answer
White	73%	71%	52%
Brown	13%	26%	24%
Black	13%	2%	15%
Indigenous	0%	0%	0%
Yellow	0%	0%	0%
EDUCATION LEVEL	No	Yes	Did not answer
Incomplete Elementary School	0%	0%	1%
Complete Elementary School	0%	0%	10%
Complete High School	7%	7%	46%
Complete Higher Education	27%	28%	15%
Specialization	40%	26%	13%
Complete Master's Degree	13%	17%	3%
Complete Doctorate	13%	21%	4%
AGE GROUP	No	Yes	Did not answer
15 to 24 years old	0%	5%	27%
25 to 34 years old	7%	16%	21%
35 to 44 years old	7%	23%	16%
45 to 54 years old	27%	15%	16%
55 to 64 years old	47%	29%	9%
65 to 74 years old	13%	9%	3%
75 and over	0	3%	0
FAMILY INCOME BRACKET	No	Yes	Did not answer
Up to 1 minimum wage	7%	2%	3%
1 to 2	20%	11%	15%
2 to 3	13%	10%	21%
3 to 4	7%	12%	10%
4 to 5	7%	7%	3%
5 to 6	0%	7%	6%

6 to 7	7%	5%	0%
7 to 8	7%	4%	1%
8 to 9	0%	6%	6%
9 to 10	13%	7%	3%
10 to 20	13%	13%	13%
More than 20 minimum wages	7%	5%	7%

Source: developed by the authors (2024)

Regarding the cultural habit indicator, it is noted that 40% of those who responded that they would not contribute have a high cultural habit index. They also prevail in the affirmative response to support the APM (35%), followed by those characterized as medium (34%). The fact that people with a high cultural habit indicator prevail as those who would not support does not corroborate findings from other studies (GUARISA et al., 2023; FUJIWARA et al., 2019; ESPERIDIÃO et al., 2017). Nor does it align with what Bille (2024) proposed regarding the relationship between willingness to pay and cultural capital.

Table 8 – Willingness to contribute to the APM through taxes according to cultural habit indicator

Cultural Habit Indicator	Would you be willing to donate €1.87 through taxes?		
	No	Yes	NR/NS
Low	33%	19%	39%
Medium	20%	34%	39%
High	40%	35%	13%
Very High	7%	13%	9%

Source: developed by the authors (2024)

However, among those who stated that the services offered by the APM are excellent, more than 90% said they would contribute via taxes (Table 9). Such a result not only demonstrates the users' satisfaction level but also suggests that the 40% with a high degree of cultural habit may not be users of the collection and, therefore, are not willing to allocate part of the tax to support it.

Table 9 –Willingness to contribute to the APM through taxes according to **excellent** service evaluation

Aspect	No	Yes	Total General
Signage (entrance, exit, restrooms...)	2	59	61
Comfort (restrooms, lockers, room temperature, ...)	2	52	54
Document preservation	3	89	92
Equipment maintenance (microfilm readers, computers, slide projectors, etc.)	3	51	54
Visitor furniture maintenance	3	67	70
Cleanliness	4	100	104
Lighting	3	80	83
Security	4	65	69
Available information and explanations	5	74	79
Reception	5	96	101
Transportation convenience	5	75	80
Street signage	4	55	59

Parking convenience	0	18	18
Website	4	68	72
Research Guidance	4	79	83
Sending digitized documents	4	80	84

Source: developed by the authors (2024)

When asked if they would make a one-time donation of €2.43, 44% responded that they were willing to donate (Table 10). The percentage of "yes" responses to this question is much lower than that observed for the question involving redirecting taxes (78%). It is not surprising, as in this case, the interviewee would be disbursing funds rather than authorizing a tax they already pay to support the APM.

Table 10 – Willingness for a one-time donation of €2.43 to the APM

If you knew that the Public Archive of Minas Gerais was experiencing financial difficulties and had to reduce its activities or close, would you be willing to participate in a donation campaign on the website for €2.43 in a single installment?

	Number	%
No	139	38%
Yes	160	44%
Did not answer	67	18%
Total General	366	100%

Source: developed by the authors (2024)

Women self-identified as white, with completed higher education, aged between 35 and 44 years and 55 to 64 years, and with a family income of 10 to 20 minimum wages are predominant among those who stated they would donate the proposed amount (Table 11). The fact that individuals with lower incomes did not signal support as they did when redirecting taxes strengthens the perception of the warm glow effect.

Table 11 – Profile of respondent interviewees regarding support for the APM through a one-time donation of €2.43

	Would you be willing to participate in a website donation campaign for €2.43 in one installment?		
	No	Yes	Did not answer
GENDER			
Women	55%	54%	55%
Men	45%	46%	39%
Non-Binary	0%	1%	0%
NR/NS	0%	0%	6%
RACE/ETHNICITY	No	Yes	Did not answer
White	71%	71%	52%
Brown	24%	27%	24%
Black	5%	1%	15%
Indigenous	0%	1%	0%
Yellow	0%	0%	3%
EDUCATION LEVEL	No	Yes	Did not answer
Incomplete Elementary School	0%	0%	1%
Complete Elementary School	1%	0%	10%
Complete High School	9%	6%	46%

Complete Higher Education	31%	26%	15%
Specialization	27%	28%	13%
Complete Master's Degree	14%	19%	3%
Complete Doctorate	19%	22%	4%
AGE GROUP	No	Yes	Did not answer
15 to 24 years old	4%	6%	27%
25 to 34 years old	19%	13%	21%
35 to 44 years old	20%	24%	16%
45 to 54 years old	15%	16%	16%
55 to 64 years old	32%	29%	9%
65 to 74 years old	8%	10%	3%
75 and over	2%	3%	0%
FAMILY INCOME BRACKET	No	Yes	Did not answer
Up to 1 minimum wage	2%	2%	3%
1 to 2	17%	6%	15%
2 to 3	13%	8%	21%
3 to 4	14%	9%	10%
4 to 5	9%	5%	3%
5 to 6	5%	9%	6%
6 to 7	5%	6%	0%
7 to 8	3%	6%	1%
8 to 9	4%	8%	6%
9 to 10	6%	8%	3%
10 to 20	6%	18%	13%
More than 20 minimum wages	4%	7%	7%

Source: developed by the authors (2024)

From reading Table 12, it is understood that there is a more uniform distribution of the "not donate" response among the cultural habit indicators, unlike what was observed for support through taxes. Among those who accept making the donation, those in medium and high cultural habit categories are the most inclined, 33% and 39%, respectively.

Table 12 – Willingness to donate according to cultural habit indicator

Cultural Habit Indicator	Would you be willing to participate in a website donation campaign for €22.43 in one installment?		
	No	Yes	NR/NS
Low	22%	18%	39%
Medium	34%	33%	39%
High	29%	39%	13%
Very High	14%	11%	9%

Source: developed by the authors (2024)

More than half of the respondents who rated the APM services as excellent answered affirmatively about a one-time donation. However, once again, the percentages are lower than those for redirecting taxes (Table 13).

Table 13 – Willingness to donate the amount of €2.43 in one installment to the APM according to excellent service evaluation

Aspect	No	Yes	Total General
Signage (entrance, exit, restrooms...)	44%	56%	100%
Comfort (restrooms, lockers, room temperature, ...)	44%	56%	100%
Document preservation	40%	60%	100%
Equipment maintenance (microfilm readers, computers, slide projectors, etc.)	41%	59%	100%
Visitor furniture maintenance	46%	54%	100%
Cleanliness	42%	58%	100%
Lighting	45%	55%	100%
Security	38%	62%	100%
Available information and explanations	47%	53%	100%
Reception	40%	60%	100%
Transportation convenience	39%	61%	100%
Street signage	41%	59%	100%
Parking convenience	28%	72%	100%
Website	38%	63%	100%
Research Guidance	41%	59%	100%
Sending digitized documents	31%	69%	100%

Source: developed by the authors (2024)

5.2 Results of the Probit Model

The probability of accepting to participate in the donation campaign = Agrees to donate €1.87 from taxes (dummy); Family income; Habit indicator and Habit indicator squared; older than 47 years (dummy) and age squared; residing in Belo Horizonte (dummy); gender; education level; Race/Ethnicity.

Table 14 presents the mean, variance, and standard deviation of the variables used in the model. Most variables are binary, indicating yes or no responses to campaign participation and tax donations. The mean acceptance rate for participating in the campaign is 55%, while the mean for tax donation is 94%. Family income range and cultural habit index variables are qualitative, with means of 6.47 (equivalent to an income range between 6 and 7 minimum wages) and 9.84, respectively. The average age of participants is 47.66 years, with approximately half residing in Belo Horizonte. The gender, race/ethnicity, and education level variables are categorized, and their descriptions/Coding are presented below.

Table 14 – Descriptive statistics - Mean, Variance, and Standard Deviation

Variable	Description/Coding	Type	Mean	Variance	Standard Deviation
Accepted to participate in the campaign	0 - No 1 - Yes	Binary	0.55	0.25	0.50
Agrees to donate €1.87 from taxes	0 - No 1 - Yes	Binary	0.94	0.05	0.23

Family Income Bracket	1 - up to 1 minimum wage	Ordinal Qualitative	6.47	11.79	3.43
	2 - 1 to 2				
	3 - 2 to 3				
	4 - 3 to 4				
	5 - 4 to 5				
	6 - 5 to 6				
	7 - 6 to 7				
	8 - 7 to 8				
	9 - 8 to 9				
	10 - 9 to 10				
	11 - 10 to 20				
	12 - over 20 minimum wages				
Cultural Habit Indicator	Between 0 and 20	Discrete	9.84	23.79	4.88
Age	In complete years	Continuous Quantitative	47.66	219.15	14.80
Resides in Belo Horizonte	0 - No 1 - Yes	Binary	0.49	0.25	0.50
Gender	0 - Female 1 - Male 2 - Non-binary	Categorical	-	-	-
Race/Ethnicity	0 - White 1 - Brown 2 - Black 3 - Indigenous 4 - Yellow	Categorical	-	-	-
Education level	0 - Incomplete Elementary 1 - Complete Elementary 2 - Complete High School 3 - Complete Higher Education 4 - Specialization 5 - Complete Master's 6 - Complete Doctorate	Categorical	-	-	-

Source: developed by the authors (2024)

Upon analyzing the Probit model results, Table 15 shows that some coefficients of the independent variables exhibit significant patterns. Notably, those who demonstrated a predisposition to donate €1.87 from their taxes showed a considerably higher probability of agreeing to participate in the campaign, as indicated by the substantial coefficient of 1.58, which is statistically significant. Additionally, family income emerges as an influential factor, where an increase in income is associated with a higher probability of campaign participation, as evidenced by the positive coefficient of 0.125. This finding aligns with theoretical expectations, reinforcing the validity of our results. Conversely, age, especially for those over 47 years old, has a negative effect on the probability of campaign participation, as reflected by the significant coefficient of -0.919.

Table 15 – Probit model estimation results

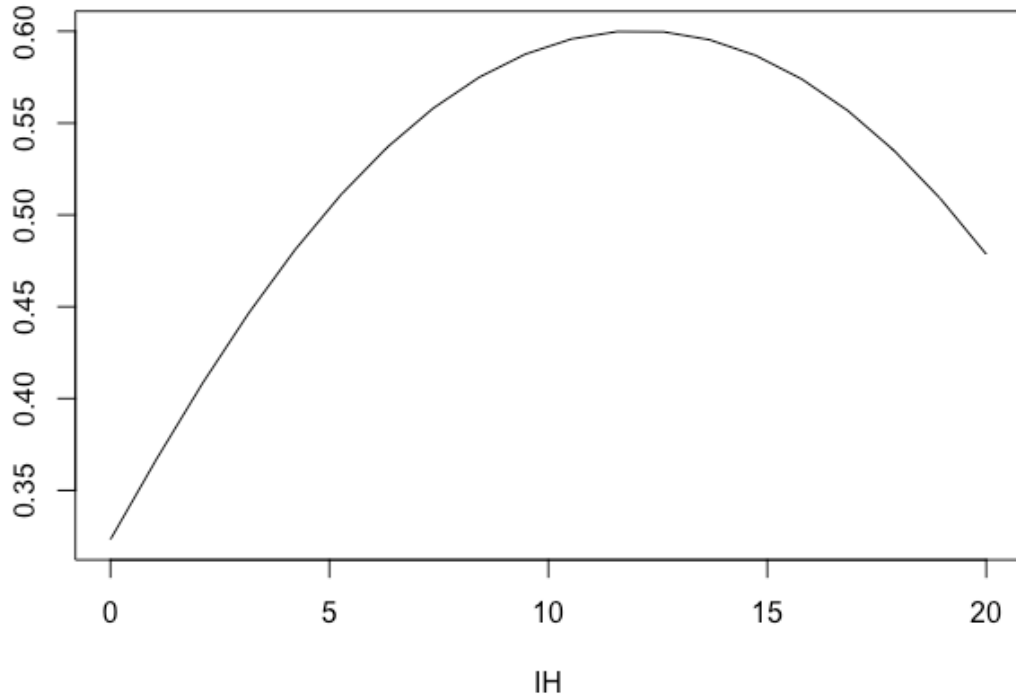
	<i>Dependent variable:</i>
	accepting to participate in the donation campaign
Agrees to donate €1.87 from taxes	1.587*** (0.537)
Family Income Bracket	0.125*** (0.029)
Age ²	0.0003** (0.0001)
Over 47 years old	-0.919*** (0.335)
Cultural Habit Indicator	0.266** (0.106)
Cultural Habit Indicator ²	-0.209*** (0.080)
Resides in Belo Horizonte	-0.179 (0.170)
Gender	0.012 (0.169)
Race/Ethnicity	-0.022 (0.151)
Education level	-0.052 (0.073)
Constant	-1.867*** (0.633)
Observations	266
Log Likelihood	-157.103
Akaike Inf. Crit.	336.205

Note: *p<0.1; **p<0.05; ***p<0.01

Source: developed by the authors (2024)

Additionally, the cultural habit index exerts an interesting influence: while the cultural habit index has a positive effect (coefficient of 0.266), indicating that those with higher cultural habits are more likely to participate, the squared cultural habit index has a negative effect (coefficient of -0.209), suggesting an inverse relationship between extremely high cultural habits and the probability of participation, as demonstrated in Figure 1. However, factors such as location in Belo Horizonte, gender, race, and education level do not seem to significantly influence the decision to participate in the campaign, as evidenced by coefficients close to zero and lack of statistical significance.

Figure 1 – Relationship between campaign acceptance and cultural habit indicator



Source: developed by the authors (2024)

6. Concluding remarks

In this innovative research of contingent valuation to an archival institution and based on the descriptive analysis conducted, several key insights have emerged regarding the demographic composition of the survey sample, respondents' familiarity with the APM, their cultural habits, and their willingness to support the institution financially. Firstly, the survey sample portrays a demographic profile primarily consisting of females, white individuals, and those predominantly aged 35 to 44 and 55 to 64. Moreover, a significant portion of respondents have completed higher education, and there is diversity in the family income bracket, although a notable percentage falls within the lower income ranges. Furthermore, the assessment of cultural habits serves as a proxy for the accumulation of cultural capital, indicating varying levels of engagement in artistic and cultural activities among respondents. Notably, a substantial portion exhibits medium to high indicators of cultural habits, suggesting active participation in such activities.

Regarding familiarity with the APM, a substantial majority of respondents have heard of the institution, and slightly over half have visited it, with the majority of visitors being familiar with the collection. Most visits are motivated by academic purposes, highlighting the importance of the APM as a resource for historical research. The analysis also delves into respondents' evaluations of the APM's services, which are generally positive, particularly regarding research-related aspects. Additionally, the study examines respondents' perceptions of the institution's importance, with a significant proportion agreeing with various statements highlighting its significance.

What stands out in the present research is the attribution of high cultural value by those who frequent the institution, predominantly individuals with a high level of education and residents of Belo Horizonte. This value is linked to preserving individual and societal memory and contributing to developing public policies for heritage preservation, which reaches a specialized audience. However, the general public, who might turn to the institution to access

documents for legal demands or to ensure their civil rights, does not seem to recognize the institution's relevance to their personal lives.

The study also explores respondents' willingness to financially support the APM through tax allocation and one-time donations. The Probit model analysis reveals significant patterns, with a predisposition to allocate taxes, higher income, and cultural habits positively influencing the probability of participating in the donation campaign. Conversely, age negatively affects campaign participation, while extremely high cultural habits inversely affect the probability of involvement.

While a majority express willingness to allocate taxes to support the institution, the willingness to make one-time donations is comparatively lower. Factors such as demographic characteristics, cultural habits, and satisfaction with APM services influence respondents' decisions regarding financial support. The data suggest, therefore, that APM users perceive that the government should be responsible for supporting its activities through public funds derived from mandatory taxes paid by the population.

The fact that the institution more fully navigates the cultural and historical dimensions impacts its civic and administrative function related to records management. This dichotomy between administrative and memorial roles has been debated since the creation of APM (PARRELA, 2021). The progressive downgrades in the government's hierarchical structure have affected the institution's internal and external actions, leading it to occupy an increasingly less significant role in public administration, particularly in its administrative function of records management.

The administrative function should be effectively recognized by public governance in the fundamental relationship that APM establishes with other state departments, acting to develop criteria and methods for ensuring that the documents produced continue to be sent to the institution. Consequently, the lack of understanding by public authorities regarding its mission for the present time prevents APM from fully fulfilling its role of maintaining records that provide transparency to state actions, thereby guaranteeing citizens' civil rights.

From the perspective of society's understanding of the institution's civic mission, it would be beneficial for APM to invest more decisively in public communication through broader-reaching media, such as public radio and television networks. With more significant support from governance, APM could fully exercise its triple function—historical, civic, and administrative—and serve society more comprehensively and thoroughly.

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