# Measuring the Public Value of Finnish Museum Experiences

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# EXECUTIVE SUMMARY

This project rigorously documented the well-being-related value the public perceived they gained from visiting, individually and collectively, eight Finnish museums – the **Helsinki Art Museum, Helsinki City Museum, Heureka, Museum and Science Centre Luuppi, Museum Centre Vapriikki, Museum of Contemporary Art Kiasma, Serlachius Art Museum and The Finnish National Museum in Helsinki** – as well as determine the resulting monetary value and cost-benefits created by these museum experiences.

Museums generate significant public value by enhancing the publics' well-being through the various and myriad museum experiences they offer. As opposed to the 'pop psychology' sense of well-being, which is often reduced (trivialized) to feelings of happiness, museums facilitate feelings of well-being by catalyzing feelings of wonder, interest, curiosity, enhanced understanding, greater sense of belonging and perceptions of physical safety and serenity. Museums have long successfully supported these very basic, biologically and culturally important physical, social, intellectual and personal well-being-related human needs but few have understood how or attempted to directly measure the resulting value created.

Starting in May 2022, a total of 5,499 museum visitors from across these eight museums were approached and invited to participate in this study. Of these, 70%, or 3,911 individuals agreed, and of these, 50%, or 1,942, fully completed a survey they received one month after their museum visit. Respondents were randomly assigned one of two surveys. One related to the nature of the person's month-earlier museum experience and asked them to indicate whether or not they had experienced each of 16 possible well-being-related outcomes – 4 outcome measures for each of 4 dimensions of well-being, and if so, for how long those benefits lasted. The other survey asked individuals to assign a monetary value to each of the same set of 16 possible well-being-related outcomes at each of five possible durations, e.g., benefits lasting 1-2 hours, a day, a week, two weeks, or a month or more.

Although for each of the 16 outcome measures there were always a very tiny handful of individuals (1%) who reported experiencing no benefit from their museum visit, the vast majority of individuals (99%) not only reported experiencing benefits, but reported that their couple-hour visit resulted in benefits lasting anywhere from a day to weeks, or even a month or longer. The benefits associated with social and physical well-being lasted, on average, an entire day, while the benefits associated with increased personal and intellectual well-being lasted, on average, two or three days. However, visitors reported that they experienced enhancements in not just a single dimension of well-being, but rather in all four dimensions of well-being. Thus, each individual's museum experience resulted in positive improvements in their personal well-being + their intellectual well-being + their social well-being + their physical well-being. The full importance of this fact emerged when the monetization results were applied. **On average, the value in enhanced well-being that a visitor to one of these eight Finnish museums experienced was worth 864 € per individual.**

Although a value of 864 € benefit/individual visitor is truly impressive, the real power and value created by these and other Finnish museums lies in their *cumulative* value, as each institution serves tens to hundreds of thousands of individuals every year. **The cumulative annual value generated by these eight museums is enormous, averaging more than 230 million EUROS each.** Ultimately, though, value cannot be judged merely by the gross benefits generated since it takes resources to create this value. A cost-benefit analysis showed that the average ratio of benefits to costs of these eight museums was 2 917%, or roughly **30 € of benefit achieved for ever 1 € spent**.

**In conclusion, this study demonstrated that these eight museums delivered significant and valuable societal benefits to their communities, and did so in a highly cost-effective manner.**

# Measuring the Public Value of Finnish Museum Experiences

## INTRODUCTION

These are stressful times for museums. Virtually all face challenges to their identity and in some cases, long-term survival, as voices from many quarters criticize past practices and clamber for change. Clearly the challenges museums now face requires a willingness to think in new ways about existing realities but sometimes the best place to start problem solving is not with deficits, but with assets; not with what is wrong but with the opposite, what is right.

What is right about museums is that currently and historically, millions of people have perceived that they derive real value from using/visiting museums. Despite this fact being well known, it has been challenging to really determine exactly why people perceive this value in museum-going, let alone how much that perceived value might actually be worth. The purpose of this research study was to clarify, define and measure at least one significant aspect of that value, and do so in an empirically verifiable, monetizable way.

The premise of this work is that if one had the ability to better communicate the value of museum experiences to the decision and policy makers and general public who collectively support and fund museums, using an approach that directly spoke to how they themselves define value, then it would be much easier to justify the importance and value of that support. Equally important, if one truly understood the value that makes so many people want to use museums again and again, then it would be much easier to know how to enhance the value that current users receive as well as extend that value to the many individuals who currently are not fully served by current museum offerings.

## BACKGROUND

Historically, it was assumed that the value of museums resided in their tangible assets like collections and buildings. As has been happening across all organizations, though, tangible assets have come to represent an ever-decreasing percentage of actual value. For example, roughly 40 to 50 years ago, tangible assets such as buildings, machinery and inventory represented two-thirds of the market value of the average company. Ten years later, those same assets represented only a third of company market value (Kaplan & Norton, 2001), and today, that percentage has been cut in half again (Berman, 2019). In today's world, a museum's most valuable assets are nearly all intangible and reside in the knowledge they possess and support, particularly the experiences they create for the public.

However, if the true value of museums resides in the museum experiences they support, how does one convincingly demonstrate this to policy makers and the public, particularly if these assets are perceived as vague and difficult to measure? This critical question has long been debated by museum professionals and many have attempted to provide an answer, but it is fair to say that to date, no clear consensus has emerged. However, unlike the many approaches to defining value offered in the past (e.g., ArtsCouncil UK, ND; AEGIS, 2004; AAM, 2020; ASTC, 2018; Ashton, et al., 2019; Bradley, et al., 2014; CASE, 2010; Cronin, 2015; Dafoe, 2020; Department of Culture, Arts and Leisure, 2010; Falk, et al., 2016; 2018; Falk & Needham, 2011; Fujiwara, Kudrna & Dolan, 2014; Groves, 2005; Hull, 2011; Packer & Bond, 2010; Scott ,2011; Selwood, 2002; Stein, 2018a; 2018b; Te Papa National Services, 2001; Teasdale, 2018), the approach used in this research did not begin by defining the value of museum experiences from the inside; by basing value on what museum professionals thought was valuable. Instead, as recommended by the State of Life Foundation in the

U.K. (2021) and a growing number of other leisure economists, our approach began on the outside, with visitors themselves, building off what museum audiences themselves believed was valuable about their museum experiences.

Over the past 40 or more years, a wide variety of investigators have interviewed museum users about their museum experiences (e.g., Anderson, Storksdieck Spock, 2006; Anderson & Shimizu, 2012; Anderson, Shimizu, & Campbell, 2016: Falk, 1988; Falk & Dierking, 1991; 1995; 1997; Falk et al., 2004; Falk & Storksdieck, 2010; Fivush, Hudson & Nelson, 1984; McManus, 1993; Medved & Oatley, 2000; Stevenson, 1991; Wilton, 2006). What these interviews revealed was that the public does talk about many of the issues museum professionals value, such as the aesthetic value of the objects on display and how exhibits helped them learn about science, art or culture, but these are neither the only things visitors talked about nor necessarily even the primary way the public framed what they found valuable about their visit experiences. However, independent of what visitors might specifically say about their museum experiences, the real evidence for the value of these experiences emerges from the fact that virtually all visitors have something to say. Defying all expectations, virtually everyone who has ever visited a museum remembers the experience and can talk about that experience, regardless of whether the visit in question occurred the day before or even years earlier. This high degree of memorability of museum experiences is highly significant. These results are important because there are precious few short-term experiences that create such lasting memories (Richards, 2017). Museum experiences are clearly special events in people's lives – they must be, or they would not be so salient, and so memorable.

**Meaning and Memory**   In order to fully understand the significance of the fact that museum experiences create such long-term and indelible memories requires first appreciating the obvious – memory is always highly selective and only the tiniest subset of the things experienced in a person's life are truly memorable; most are soon forgotten (Jebelli, 2022; Richards, 2017). People actively filter the myriad events in their life, selectively remembering only the most meaningful things. Evolution, both biological and cultural, has dictated that people judge the 'meaningfulness' of something by whether or not it is likely to be advantageous/useful to that person; or to put it more scientifically, human memory systems are optimized to process and retain survival-relevant information (Hesp, et al., 2021; Naime & Pandeirada, 2016). We therefore can conclude that, for some reason, people find museum experiences meaningful because they are somehow related to their survival; if they were not, they would not be so memorable. The question then becomes, what is it about museum experiences that make them meaningful, i.e., supportive of enhanced survival?

We know that the meaningfulness of museum experiences differs between users, that it is always a personally constructed, highly individualized reality. Each visitor's reality is only loosely tethered to the actual, fixed realities of the museum's space, exhibitions and/or events. Not only can and will two visitors have different visitor experiences despite ostensibly doing and seeing the same things at the museum, but even the same individual on two different days will almost certainly have a different visitor experience because s/he is not exactly the same person on those different days (Falk, 2009; Falk & Dierking, 2019). This is why, depending upon the individual and their needs on the day of a visit, the meanings sought and found during a museum experience may primarily be personal, intellectual, social or physical in nature.

Places such as art, history, natural history and children's museums, science centers, zoos, aquariums, nature centers, arboretums and botanical gardens are settings in which people get to see and do things entirely out of the ordinary; they are physically unique settings, filled with unique things completely outside of most people's daily experiences. Museums are also one of those rare settings that allow users to discover and learn new things about themselves, their friends and the broader world. Museum experiences are also notable because typically users have tremendous choice and

control over what they get to do, what to focus on and who they get to have this experience with. Having the agency to see and do these fundamental, personal-, intellectual-, social- and physical-enhancing types of things, things that make one feel like one has done something truly special, results in perceptions of meaningfulness (cf., Falk 2019). The term that we believe best captures these diverse positive perceptions of meaningfulness is *well-being*.

**Well-Being**     We define well-being as balance, and balance – physical, social, intellectual and personal balance – is something every human constantly strives to achieve every day of their life (cf., Falk, 2019; 2021). Being in balance feels good, being out of balance feels bad. Although this need for a sense of well-being is fundamental and pervasive, it is surprising how difficult it is for most people to describe what it means to have well-being. People intuitively know when they are feeling physically in balance; they feel healthy, they feel secure and vital. Similarly, when they are in a state of social balance they have a sense of belonging and feel accepted and respected by their friends and family. So too, intellectual and personal balance. Equally, and more common, is the ability to know when one is out of balance – feeling sick, lonely, depressed or inadequate.

Despite the challenges of describing well-being, the desire for balance and wholeness, for well-being, is universal, something every cultural group, in every corner of the planet, has embraced. Of course, every culture has viewed and described this idea of balance differently, but each in its own way has incorporated the basic desire for well-being into their philosophies and daily lives (for more detail, see Falk, 2021).

Despite the pervasiveness of these well-being-related ideas in all world cultures, it is surprising to discover how poorly this idea of well-being has been defined and studied by scientists. Beginning several decades ago, a group of Western psychologists resolved to remedy this situation by applying both theoretical and experimental rigor to the understanding of what it means to cultivate and live a satisfying life (cf*.,* Ryff, 1989*)*. Often referred to as 'positive psychology,' in response to the fact that historically psychology was, and in large measure still is, primarily concerned with the study of human dysfunction and malaise, these researchers focused on better understanding and measuring things like happiness, wellness and well-being (Seligman, 2002). In the ensuing years, hundreds of books and thousands of articles have been written on well-being-related topics, all however, began with the assumption that well-being and its related states were a uniquely human, almost exclusively psychological phenomenon (e.g., Cloninger, 2004; Eid & Larsen, 2004; Diener & Biseas-Diener, 2008; Dolan, 2014; Ryff, 2014). Additionally, and also problematically, has been the tendency for these many researchers to disproportionately define human well-being from a deficit perspective. From this perspective, well-being is an achievable end state, one that most people currently lack due to the absence of one, or some combination of elusive, but attainable attributes, values or possessions. A classic example of this approach is revealed in the way physical well-being, or health, has typically been defined. Throughout the West, health has primarily been viewed as either the absence of any disease or impairment or as a state that allows the individual to adequately cope with all the demands of daily life (implying also the absence of disease and impairment) (cf., Sartorius, 2006). Although these definitions make it relatively easy to measure the presence or absence of physical well-being, e.g., you either have a disease or you do not, what is lost in this approach, and not just in public health but in all facets of life, is the ability to appreciate that physical and by extension all forms of well-being, are actually not an absolute but rather always relative and dynamic. In reality, peoples' well-being is always ephemeral and in flux. For example, no one is ever either totally 'healthy' or 'sick,' totally absent of pathogens or stresses; people are always somewhere in between. Thus, the best you can ever hope to 'capture' in any measure of well-being is a very context-specific 'snapshot' of how one particular event or situation influenced a person's perceived well-being over some defined moment in time.

From this perspective, the desire to maximize well-being is neither exclusively a human phenomenon nor some kind of psychological nicety. The pursuit of well-being is a basic biological need, something all living creatures continually engage in (Falk, 2019). Perception of well-being evolved as a device for maximizing survival, which is why every human constantly monitors and attempts to control its well-being. Unfortunately, as suggested above, one cannot just 'achieve' a positive state of well-being and stay in that positive state. Positive well-being is always fleeting, and thus to be alive, is to be engaged in a never-ending effort to enhance positive well-being and minimize negative well-being. That is why when a person perceives that a particular activity results in his/her positive well-being, that activity is very salient and very memorable. Arguably this is the reason living things evolved the ability to remember things – it is adaptive to remember positive (and negative) things so that you might be able to repeat (or avoid) those things should the opportunity arise again in the future (Hesp, et al., 2021; Jebelli, 2022), e.g., museum experiences.

Of course, museums are not the only settings that support feelings of well-being. People derive some measure of well-being from the work they do, from good government, public safety, and of course, as has been recently made evident, from a well-functioning public health system. However, in our opinion, museums, play a particularly unique and critical role in supporting the public's well-being; a role that few if any other institutions in current society do quite as well. In particular, research has shown that when people reflect back on their museum experiences, days, weeks and even years later, the benefits they describe can be summarized as falling into each of four distinct areas of enhanced well-being:

- Personal Well-Being – museums catalyze wonder, interest and curiosity; all of which foster a sense of personal power and identity. They also support feelings that foster a greater sense of personal connectedness, appreciation, belonging and harmony with the human and natural world; all in ways that people find satisfying and enjoyable;

- Intellectual Well-Being – museums help people more clearly comprehend how their past understandings and activities connect, they inspire awe and appreciation for the best of human and natural creation, and under the best of circumstances, even serve as guides to a better, more informed and creative future;

- Social Well-Being – museums enhance many user's sense of belonging to family, group and even community, and do so in ways that bestow the user with a high degree of status and respect; and,

- Physical Well-Being – museums are widely perceived as safe, healthy and restorative environments that allow people to gather (physically or virtually), interact, explore, play and enjoy without fear or anxiety.

Research has shown that when people consistently feel like they have achieved these kinds of personal, intellectual, social and physical well-being-related experiences, they are significantly more likely to believe they have lived a satisfying and successful life (cf., Falk, 2019); an outcome that clearly has societal value.

**Monetizing Well-Being**        Paralleling the rise in importance of intangible products and services, has been efforts by economists to calculate their monetary value. Valuating intangible products and services is, perhaps not surprising, challenging and economists have typically utilized one of three approaches to the problem (cf., Arendt, et al., 2020; Dohrmann, Matthias & Siebold, 2015; Ferrer-i-Carbonell & Frijters, 2004; Orlowski & Wicker, 2015; State of Life, 2021). Increasingly common have been efforts to correlate particular products or services to one of a variety of single, annually measured, quality of life or 'happiness' measures (cf., HRI, 2020). A more traditional economic approach, and far and away still the most commonly used, is what is known as the 'use'

approach, where the value of something is determined by what people actually pay for that something, e.g., admission prices or time-equivalent pricing. The final, slightly less straightforward but equally accepted approach is what is called 'contingent valuation' (cf., Carson, 2000), where monetary values are estimated by making inferences about people's willingness to pay based on comparable but indirect market data or by literally asking people directly what they would willing to pay for a particular service or outcome.

We consider the first approach of limited validity for assessing the impact of museum experiences. Museum experiences are typically highly infrequent, often people visit a particular museum only once a year, and that visit normally only lasts a couple of hours. As a consequence, even assuming that an experience is impactful, that impact is extremely unlikely to be of sufficient intensity to have a significant, causal impact on any of the once-a-year quality of life measures currently in use. For entirely different reasons we also question the validity of the 'use' approach to measuring value. It is extremely tricky to fully capture the use value of museums since so much of the true costs of a museum experience, including admission prices, are partially or fully subsidized by government and charity support, and thus hidden from the user. We have found 'contingent valuation' approaches to be the best alternative for validly and reliably measuring the financial value of museum experiences. Although, for the reasons mentioned above as well as others, you cannot ask people to fairly judge the value of an experience they do not fully pay for, you can ask them how much they think a particular outcome such as having an enjoyable and educational day at the museum might be worth to them (cf., Falk, 2022). A pilot study of six museums in three countries, including Heureka in Finland, demonstrated both the feasibility and validity of using contingent valuation as a way to monetize and assess the well-being-related value of museum experiences (cf., Falk, 2021 for a more detailed summary of this effort).

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This current project was designed to bring together eight committed Finnish museums, in collaboration with the Finnish Museums Association, to partner in a study that took these ideas and moved them beyond mere 'proof of concept'. This project was an effort to rigorously document the well-being-related value the public perceived they gained from visiting, individually and collectively, the Helsinki Art Museum, Helsinki City Museum, Heureka, Museum and Science Centre Luuppi, Museum Centre Vapriikki, Museum of Contemporary Art Kiasma, Serlachius Art Museum and The Finnish National Museum in Helsinki, as well as determine the resulting monetary value and cost-benefits created by these museum experiences. The ultimate goal of the project was to support these eight museums', as well as the broader Finnish museum community's, ability to make a strong, data-based case for the true societal value - personally, intellectually, socially, physically and economically - museums generate as a consequence of their core public-facing activities.

# METHODS

**Study Population**       Data collection began in May and ended in October 2022. To ensure the highest standards of research, a process was developed for randomly sampling of adult museum users, including representative numbers of daily visitors and program participants. With minor variation, museum staff at each institution approached every third adult visitor crossing an imaginary line near the entrance of the museum and asked if they would be willing to participate in a study of museum value. If they agreed, museum visitors were handed a tablet or similar data entry device and asked to provide their first name, email address and answer a couple simple questions such as their age and postal code. The goal was to recruit a minimum sample of 500 adult museum users/institution willing to commit to completing a 15-minute e-survey at a future date. To ensure that only adults were included in the sample, all respondents were asked to indicate their birthday and the survey software, Qualtrics, automatically excluded any individual under the age of 18 years. The distribution of participants by age is shown in Figure 1.

Figure 1. Survey 1 respondents by age. Mean age 49 years. NOTE: Survey 2 data was almost identical.
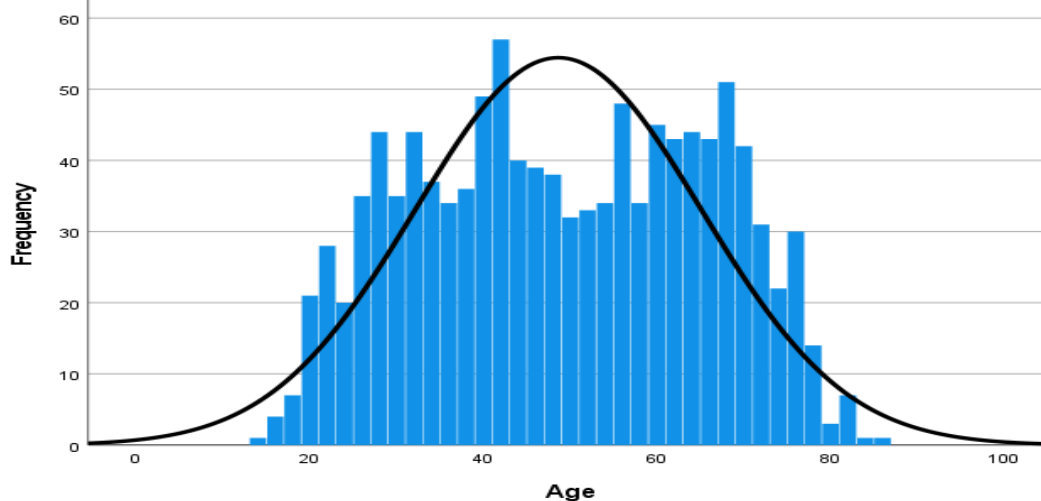


In total, 5 499 museum visitors from across the eight institutions were approached about participating in the study; approximately 70% of whom agreed to participate in the study (n = 3 911). Each of the individuals deemed to be of acceptable age and who agreed to participate was automatically sent an immediate email acknowledging their participation and informing them that they would receive a survey by email in one month. This population was then randomly divided in half (by the survey software) with roughly 2,000 individuals sent a survey asking them to report on whether or not their museum experience resulted in a series of well-being-related outcomes and the other roughly 2,000 individuals sent a survey that asking them to assign a monetary value to these same well-being-related outcomes but without specifically mentioning a museum. The purpose of this 'split sample' approach (Anderson & Magruder, 2017, Fafchamps & Labonne, 2017) was to ensure that individuals who provided monetary valuations of the various well-being-related outcomes were not being biased in their assessments due to their assumptions that value should be equal to admission price or some other price they associated with their earlier museum visit. As discussed above, price bias had been found to be a significant problem in earlier pilot research (Falk, 2021) and a split sample approach found to be an acceptable method for alleviating it (Falk, 2022).

The survey software automatically sent out surveys one month after an individual was recruited, and if individuals did not respond to the initial survey request within two weeks, they were automatically sent a reminder. A second and final reminder was automatically sent out to non-respondents two weeks after the first reminder. Of the 3 911 individuals agreeing to complete a survey, 1 942, about 50%, fully completed one of the two surveys – 1 157 completed the survey with questions related to their museum experiences and 785 (the more challenging survey to complete) completed the survey asking them to assign a monetary value to the set of possible well-being-related outcomes. Recruitment numbers by institution, acceptances, refusals and final survey participant numbers are summarized in Table 1.

NOTE: Throughout this report, the focus is on the collective results of these eight museums so museum-specific data are not included. Institution-specific data is provided for each museum as Appendix A.

Table 1. Study recruitment, acceptances, refusal and final survey participant numbers.

| Number of Visitors | | | Number of Participants | |
|---|---|---|---|---|
| Intercepted | Refused | Recruited | Survey 1 | Survey 2 |
| 5499 | 1588 | 3911 | 1157 | 785 |

**Study Instruments**        As outlined above, the research involved three separate survey instruments. An initial, short survey that all potential participants took and two, separate but parallel, more involved instruments – Survey 1 focused on measuring users' perceptions of the outcomes of their specific museum experiences and Survey 2 focused on the perceived EURO value of each of the possible well-being-related experience outcomes. Pilot versions of each of these instruments already existed but these were revisited, expanded and slightly revised for this study, and then further piloted with input from cooperating institutions. Each survey was made available in three languages – Finnish, Swedish and English.

The core of Survey 1 was set up as a series of 16 questions, four questions related to each of the four categories of well-being-related museum outcomes – personal, intellectual, social and physical well-being. The order of these 16 items were randomized to avoid order bias (cf., Thau, et al., 2021). Respondents were asked if they had experienced an outcome, and if so, for how long did it last/persist – 1-2 hours, a day, a week, two weeks or four or more weeks. An example of a question was as follows:

> Did your visit allow you to satisfy your curiosity about one or more topics you find interesting or important?
>
> NO        YES
>
> If yes, for how long did that sense of satisfaction last?
>
> > An hour or two
> >
> > A day
> >
> > A week
> >
> > Two weeks
> >
> > A month or more

The core of Survey 2 was a series of questions asking participants to assign a EURO value, on a sliding scale from 0 € to 1 000 €, for each of the 16 core well-being outcomes, with valuations being asked for each of the five time periods. In other words, what was the EURO value if an experience lasted 1-

2 hours? the value if an experience lasted a day? a week? two weeks? or lasted four or more weeks? An example of a question was as follows:

> We want to know how much you think each of these benefits would be worth to YOU in Euros if they occurred.
>
> An experience that allowed a person to switch-off/decompress/de-stress:
>
> If that feeling lasted an hour or two? [slider with Euro values between 0 and 1 000 €]
>
> If that feeling lasted a day? [slider with Euro values between 0 and 1 000 €]
>
> If that feeling lasted a week? [slider with Euro values between 0 and 1 000 €]
>
> If that feeling lasted two weeks? [slider with Euro values between 0 and 1 000 €]
>
> If that feeling lasted a month or longer? [slider with Euro values between 0 and 1 000 €]

Since this represented a total of 80 separate questions (16 outcomes X 5 possible durations), which was deemed to be far too many questions for any one individual to reasonably answer, each respondant was randomly assigned only half of this total, i.e., 40 separate valuations/survey.

In addition to these core questions, each survey included three additional questions – how frequently they visited museums annually, whether they were Finnish Museum Card holders or not, and what is their annual family income. As expected, due to the random assignment of visitors to either Survey 1 or 2, there were no significant differences in respondents' characteristics between these two surveys (Tables 2, 3 & 4).

Table 2. Frequency of respondent's museum-going in the previous 12 months.

| | Survey 1 | | Survey 2 | |
|---|---|---|---|---|
| Museum Visitation | Frequency | Percent | Frequency | Percent |
| Rarely visit | 132 | 12.3 | 58 | 7.4 |
| At least once a year | 138 | 12.9 | 126 | 16.2 |
| 2-4 times a year | 293 | 27.4 | 196 | 25.2 |
| 5-6 times a year | 322 | 30.1 | 254 | 32.6 |
| At least once a month | 185 | 17.3 | 145 | 18.6 |
| Total | 1070 | 100.0 | 779 | 100.0 |

Table 3. Museum Card holders

| | Survey 1 | | Survey 2 | |
|---|---|---|---|---|
| Museum Card | Frequency | Percent | Frequency | Percent |
| Yes | 611 | 57.1 | 464 | 59.6 |
| No | 459 | 42.9 | 315 | 40.4 |
| Total | 1070 | 100.0 | 779 | 100.0 |

Table 4. Respondent's annual family income.

| | Survey 1 | | Survey 2 | |
|---|---|---|---|---|
| Income | Frequency | Percent | Frequency | Percent |
| Under €4,999 | 51 | 4.8 | 48 | 6.1 |
| €5,000-€9,999 | 54 | 5.0 | 43 | 5.5 |
| €10,000-€14,999 | 53 | 5.0 | 28 | 3.5 |
| €15,000-€24,999 | 102 | 9.5 | 50 | 6.5 |
| €25,000-€34,999 | 107 | 10.0 | 105 | 13.7 |
| €35,000-€49,999 | 166 | 15.5 | 120 | 15.6 |
| €50,000-€74,999 | 230 | 21.5 | 164 | 21.3 |
| €75,000-€99,999 | 153 | 14.3 | 106 | 13.8 |
| €100,000-€149,999 | 116 | 10.8 | 105 | 13.7 |
| €150,000 or more | 38 | 3.6 | 10 | 1.2 |
| Total | 1070 | 100.0 | 779 | 100.0 |

Each museum was also allowed to ask three additional, museum-specific questions. These latter questions were only asked of those individuals who had visited that specific museum. Results for each individual museum are summarized and provided as an institution-specific report (Appendix A). Institution-specific results showing respondent's postal code data is reported in Appendix B.

## RESULTS

**Survey 1** For each of the 16 variables considered – 4 dimensions of well-being, 4 outcomes for each dimension – respondents could indicate whether their specific museum experience resulted in one of six possible outcomes – 1 = no, I did not experience this outcome; 2 = yes, I had this experience and the affects lasted about 1 to 2 hours (presumably, roughly the length of the visit); 3 = yes, I had this experience and the affects lasted about 1 day; 4 = yes, I had this experience and the affects lasted about 1 week; 5 = yes, I had this experience and the affects lasted about 2 weeks; or 6 = yes, I had this experience and the affects lasted about month (or longer). Results were calculated for each of the eight museums individually, and as well as all responses collectively. An example of the collective distribution for one variable is shown in Figure 2 below. Although there was some variability in the distributions of each of these 16 variables, both in comparison to each other and by museum, all were generally quite similar in distribution to the example below. Thus, only this single example is provided.

Figure 2. Distribution for the question: "Did your visit allow you to satisfy your curiosity about one or more topics you find really interesting or important?" Where 1 = No; 2 = Yes; 1-2 hours, 3 = Yes, 1 day; 4 = Yes, 1 week; 5 = Yes, 2 weeks; and 6 = Yes, 1 month or more.
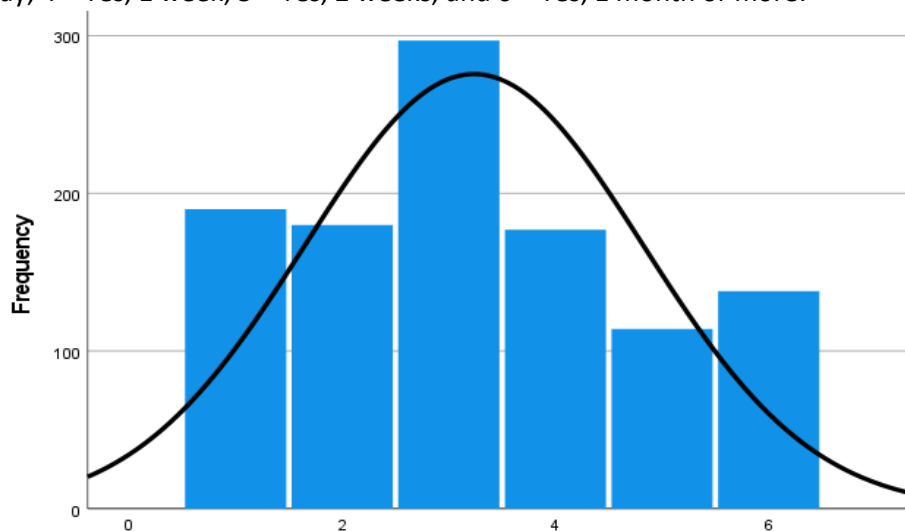


Each of the four questions within a dimension were then combined into a 'composite' well-being variable, i.e., Composite Personal Well-Being, Composite Intellectual Well-Being, Composite Social Well-Being and Composite Physical Well-Being. As with the 16 individuals items, these composite variables too had a roughly normal distribution, with the same 6 possible outcomes – 1 = no, I did not experience this outcome; 2 = yes, I had this experience and the affects lasted about 1 to 2 hours (presumably, roughly the length of the visit); 3 = yes, I had this experience and the affects lasted about 1 day; 4 = yes, I had this experience and the affects lasted about 1 week; 5 = yes, I had this experience and the affects lasted about 2 weeks; or 6 = yes, I had this experience and the affects lasted about month (or longer). Also, as above, results were calculated both for each of the eight

museums individually, and collectively. One example, Composite Personal Well-Being, is shown below (Figure 3) as the distributions of the other three composites were almost identical.

Figure 3. Overall distribution for the composite variable: "Personal Well-Being", where 1 = No; 2 = Yes; 1-2 hours, 3 = Yes, 1 day; 4 = Yes, 1 week; 5 = Yes, 2 weeks; and 6 = Yes, 1 month or more.
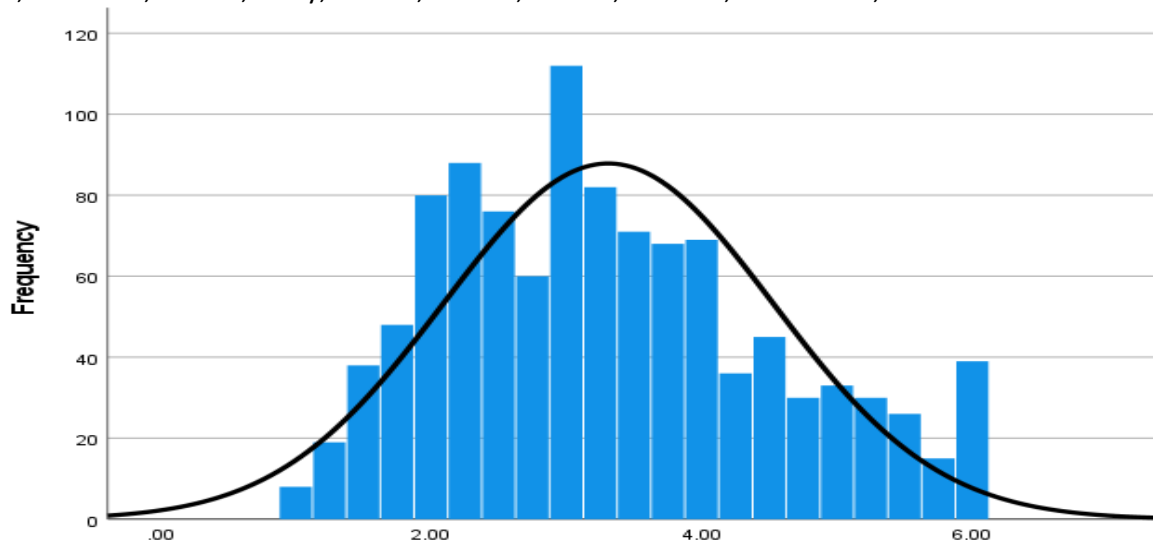


Principal Component Analysis was conducted for each of the four composite variables to ensure the validity of combining the four questions into a single, composite variable. As shown in Tables 5 - 8, factor loadings ranged from 0.440 to 0.789 and the single factor solution for the four items explained over 100% of the variance in item responses for each of the four composites. Internal consistency was high, with a Cronbach's alpha values ranging from a low of .729 for Social Well-Being to a high of .829 for Personal Well-Being; all levels above what is acceptable for combining variables (Tavakol & Dennick, 2011).

Table 5. Single factor PCA results for Physical Well-Being variables.

| Item, "How long did your visit allow to/make you: " | Factor loadings |
|---|---|
| Q1 switch-off/decompress/de-stress? | .789 |
| Q2 feel safe and secure? | .593 |
| Q3 feel free from work and routine? | .685 |
| Q4 refresh you, feel calm and relaxed? | .777 |
| Eigenvalues | 2.047 |
| % of variance | 100.00 |
| Cronbach's α | .807 |

Table 6. Single factor PCA results for Intellectual Well-Being variables.

| Item, "How long did your visit allow to/make you: " | Factor loadings |
|---|---|
| Q1 discover new things about yourself, and your place in the world? | .672 |
| Q2 satisfy your curiosity about one or more topics you find really interesting or important? | .676 |
| Q3 see things that you like? | .653 |
| Q4 think about important issues and see things in new perspectives? | .696 |
| Eigenvalues | 1.818 |
| % of variance | 100.00 |
| Cronbach's α | .782 |

Table 7. Single factor PCA results for Personal Well-Being variables.

| Item, "How long did your visit allow to/make you: " | Factor loadings |
|---|---|
| Q1 feel happy? | .671 |
| Q2 fill you with awe and amazement? | .756 |
| Q3 see things you do not usually get to see? | .735 |
| Q4 experience something special/inspiring/valuable? | .721 |
| Eigenvalues | 2.083 |
| % of variance | 100.00 |
| Cronbach's α | .829 |

Table 8. Single factor PCA results for Social Well-Being variables.

| Item, "How long did your visit allow to/make you: " | Factor loadings |
|---|---|
| Q1 support the learning and joy of your child/ companion/partner? | .731 |
| Q2 build a strong and positive relationship with your child, partner, or fiend(s)? | .730 |
| Q3 a sense of connection with members of your community? | .594 |
| Q4 increase your awareness/understanding of others? | .440 |
| Eigenvalues | 1.613 |
| % of variance | 100.00 |
| Cronbach's α | .729 |

Mean, institutional values for each of the four composite dimensions of well-being were calaculated, then summed and divided by 8 to arrive at overall, collective mean composite scores. These latter scores, the overall, 8-museum mean composite Personal, Intellectual, Social and Physical Well-Being mean values, are summarized in Table 9, with mean duration of well-being ranging from slightly less than a day (Social and Physical Well-Being) to two to three days (Personal Well-Being).

Table 9. Mean Survey 1 composite well-being values for each of the four dimensions of well-being, where 1 = NO, 2 = 1-2 hours, 3 = 1 day; 4 = 1 week, 5 = 2 weeks, and 6 = 1 month or more.

| Well-Being | Personal | Intellectual | Social | Physical |
|---|---|---|---|---|
| Mean | 3.3 | 3.2 | 2.9 | 3.0 |

There were no significant correlations between any of the four composite measures of well-being and the frequency of respondent's museum visitation. There were no significant correlations between three of the well-being variables – Personal, Intellectual and Physical – and whether visitors possessed and used a Finnish Museum Card or not; there was a significant, negative relationship between Museum Card ownership and Social Well-Being. Individuals who were Museum Card-holders indicated having a significantly lower level of Social Well-Being as a consequence of their visit than did individuals visiting without a Museum Card (t= -2.368, p = <.018).
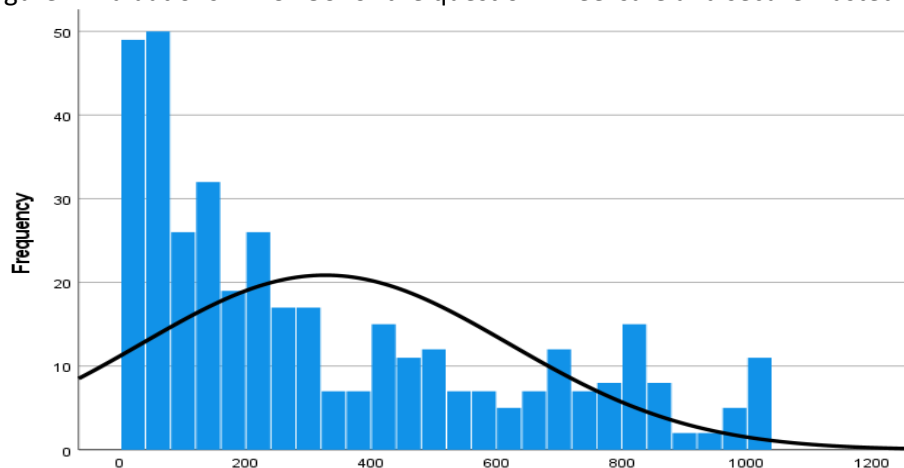
There were consistent and significant correlations between visitor age and all four composite dimensions of well-being; the older the individual, the more positively s/he valued their museum experience. This was true for Personal Well-Being (t= 15.955, p = <.001); Intellectual Well-Being (t= 14.052, p = <.001); Social Well-Being (t= 12.656, p = <.001); and Physical Well-Being (t= 15.936, p = <.001).

There was also a small, but still significant positive correlation between income and Social Well-Being (t= 2.098, p = .036). Income had no apparent impact on the other three dimensions of well-being.

**Survey 2**        The monetary assessment of well-being on a sliding scale from 0 € to 1 000 € included a total of 80 separate questions/ decisions – 4 dimensions of well-being, 4 outcomes for each dimension, 5 possible time frames ranging from affects lasting 1 or 2 hours to affects lasting 4 or more weeks. NOTE: Respondents were not asked to assign a value to having no experience since the value of no experience was assumed to be worth 0 €. Results were calculated for each of the eight museums individually, and as well as all responses collectively. An example of the collective distribution for one variable is shown in Figure 4 below. As shown, and as was typical for all 16 variables, responses were skewed to towards lower valuations with a slight 'uptick' at the high end of the scale. Because of the skewed distribution, the measure of central tendency used was the median (cf., N.A., 2018).[1]

Figure 4. Valuations in EUROS for the question: "Feel safe and secure. Lasted for two weeks?"



There were no significant correlations between the measures of well-being monetary value and the frequency of respondent's museum visitation, Museum Card use and only minimal correlations with income. There were, however consistent and significant correlations between perceived monetary value outcomes and age, with older individuals giving significantly higher EURO valuations than did younger individuals to most of the well-being-related outcomes.

**Calculating Value and Analysizing Cost-Benefit**  The collective, mean EURO value created for each of the four dimensions of well-being (Table 10) was calculated by multiplying the mean values summarized in Table 9 by the equivalent financial value, as derived through Survey 2. Though it was possible in this way to calculate the average Personal, Intellectual, Social and Physical Well-Being-related value an average adult visitor derived from a particular visit, the total value adult visitors derived from their visit experience was not limited to just one of these dimensions of benefit.

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[1] NOTE: It is not clear exactly why there was this skewing of valuations towards lower value. One possible explanation might be what is known as an 'anchoring bias' (cf., Ariely, Loewenstein & Prelec, 2006); the tendency to adjust everything to the initial rating. Although the order of the variables that Survey 2 respondents saw and were asked to monetize were automatically randomized, this was not the case for duration. In other words, for each variable, a respondent was asked in the same order what the value would be if that variable/outcome last, starting with 1-2 hours, then a day, a week, two weeks or a month. It is possible that respondents used their initial valuation as an "anchor", resulting in them adding incrementally greater, but diminishing values to each subsequent time frame.

Although there was variability in the degree of benefit each individual visitor experienced in each dimension as a consequence of their museum experience, both due to individual as well as museum differences, as illustrated by Figure 3, and though not shown, equally true for the other three dimensions of well-being benefits as well, 99% of all visitors indicated that their visit resulted in their having had some degree of positive benefit in each of the four dimensions of well-being. Thus, the actual value of a museum visit was not limited to the value of just a one single dimension of well-being, but rather each visit resulted in visitors having benefits equal to the sum of all four dimensions of well-being-related benefit. As shown in Table 10, the overall, EURO value of a museum experience by an average visitor to these eight museums was 864,32 €.

Table 10. The eight-museum Mean Value/Visit for each of the four dimensions of well-being and the total eight-museum Mean Total Value/Visit; all Values are in EUROS.

| Well-Being | Personal | Intellectual | Social | Physical | Total Value |
|---|---|---|---|---|---|
| Value/Visit | 236,89 € | 217,46 € | 205,36 € | 204,61 € | 864,32 € |

Finally, Cost-Benefit Anaylsis provides a standardized way to measure the performance or value of something, and is thus one of the most common ways policy makers and funders use to evaluate the effectiveness of an investment, as well as to compare different investments to each other (Martin, 2020; Stobierski, 2019; Weinstein & Bradburd, 2013). Overall Value is determined by calculating whether the total measured financial benefits of something are greater than or less than the total cost required to create that benefit. The result is expressed as a percentage or a ratio with the overall Value of an experience equaling the sum of the total benefits divided by the sum of total costs:

$$Value = \sum Total\ Benefits / \sum Total\ Costs.$$

Table 11 summarizes the variables used to calculate the collective Value/Cost-Benefit created by public visits to these eight museums with Total Value equaling the sum of the Mean Well-Being Value per Visit to one of these 8 museums times the Mean Total Number of Annual Visitors across these 8 museums divided by the Mean Total Average Cost of running these 8 museums for a year. The resulting overall Mean Total Value Created by visits to these eight Finnish museums was, on average, 236 464 123 € per institution and Mean Ration of Well-Being-Related Value created to Cost equal to 2 917%, or roughly 30 € of Benefit for every 1 € of cost.[2]

Table 11. Summary of Cost-Benefit Analysis for the eight museums.

| Mean Value/Visit | Mean Total # Visitors[1] | Mean Total Value Created | Mean Total Cost[1] | Mean Value |
|---|---|---|---|---|
| 864,32 € | 273 584 | 236 464 123 € | 8 107 520 € | 2 917 % |

1. Due to the timing of the study (ending mid-2022) and the unusual circumstances created by the Covid-19 pandemic, Total # Visitors and Total Cost figures were based on 2019 data; the last comparable year.

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[2] NOTE: This calculation represents a conservative estimate of museum value as it uses as 'Total Value Created' in the numerator only the well-being-related values created by adult visitor experiences and does not include the potential values of other outcomes the museum might have generated, e.g., scholarship related to collections not on display or school programs, similarly 'Total Cost' in the denominator includes all annual museum costs, regardless of whether or not they directly related to supporting adult museum visitors.

# DISCUSSION & CONCLUSIONS

This project brought together the Helsinki Art Museum, Helsinki City Museum, Heureka, Museum and Science Centre Luuppi, Museum Centre Vapriikki, Museum of Contemporary Art Kiasma, Serlachius Art Museum and The Finnish National Museum in Helsinki, in collaboration with the Finnish Museums Association, in an effort to rigorously measure the well-being-related value the public perceived they gained from visiting these eight museums. In addition, the project measured the monetary value the public perceived these outcomes were worth and then used these two sources of data to calculate the overall value created by each museum's visitor experiences as well as the overall value these museums generated annually through their public exhibition programs. Results showed that these eight museums individually and collectively did indeed create significant benefits for their visitors and their communities.

Although for each of the 16 outcome measures – 4 outcome measures for each of 4 dimensions of well-being – there were always a tiny handful of individuals (approximately 1%) who reported experiencing no benefit from their museum visit (see Figure 3), the overwhelming majority of individuals (99%) not only reported experiencing benefits, but reported that those benefits lasted long beyond the limited 1 to 2 hours of the museum experience itself. On average, museum visitors reported that their couple-hour visit resulted in benefits lasting one or more days, with many reporting that the benefits of their visit lasted weeks or even a month or longer. Just to put this in perspective, typically, a person would expect that the benefits of a leisure experience would last about the length of time of that experience, or if longer, perhaps twice the length of time of the experience (Zawadzki, Smyth & Costigan, 2015). For example, a recent study on bird-watching proudly proclaimed that for some people, the well-being benefits of encounters with birdlife lasted as long as 8 hours (Hammoud, et al., 2022). By comparision, the benefits of museum-going seem quite long-lasting. The mean social and physical well-being benefits lasted on the order of an entire day, while the mean personal and intellectual well-being benefits lasted two or three days. However, important to appreciate, was that the full benefits of a museum experience were not just those associated with a single dimension of well-being-related benefit, e.g., just personal or social well-being. Visitors consistently reported experiencing enhancements to all four dimensions of their well-being, thus the overall benefit of a museum experience was the sum of the four well-being-related benefits – personal well-being benefits + intellectual well-being benefits + social well-being benefits + physical well-being benefits. The importance of this fact became clearly apparent when the monetary value of a typical museum experience was calculated.

Using data from the second survey, it was possible to independently assign a monetary, EURO, value to each of the multiple outcomes ascribed to museum experiences. As shown in Table 10, collectively visitors to these eight Finnish museums perceived that the value of their museum visit was quite high – significantly greater than the actual direct costs associated with visiting any one of these museums, e.g., the cost of admission, parking, transportation, or even a reasonable assessment of the value of a visitor's time. The mean value of enhanced Personal Well-Being created by a museum visit was equal to roughly 237 €, the mean value of enhanced Intellectual Well-Being created by a museum visit was equal to 217 €, the mean value of enhanced Social Well-Being created by a museum visit was equal to 205 €, the mean value of enhanced Physical Well-Being created by a museum visit was also equal to 205 €, and, as suggested above, with the overall value of a museum visit equalling the combined value of all four of these dimemsions of well-being-related value; Combined Mean Value equalled 864 €.

**In other words, 864 € worth of public value was created, on average, every time an adult visited one of these eight Finnish museums.** Of course, what was measured here was just a 'snapshot' of

the value of a museum experience; the self-reported perceptions of more than a thousand adult individuals about what they experienced on one particular day in their lives. Collectively, though, these thousand-plus 'snapshots' arguably provide a valid and reliable representation of what occured during a typical adult visit to these eight Finnish museums. We can make this assertion based on the fact that the sample was a large, randomly selected sampling of visitors to each museum. Collectively these eight museums were quite diverse in size, in content – including art, history and science museums, and in geography – with museums located both within the capital region and beyond. Although, the eight museums in this sample were amongst the largest and most prominent museums in Finland, it should not be assumed that this means they provided the public with the best museum experiences – bigger is not always better. If it is assumed that, on average, the quality of visitor experiences at these eight museums was fairly typical of a visit to any Finnish museum, then these findings provide a preliminary picture of what the value of a museum visit experience might be like for a typical Finnish adult museum visitor anywhere in the country.

Further, although a value of 864 € benefit/individual adult visitor is truly impressive, the real power and value created by these and other Finnish museums lies in the *cumulative* value they create over time as each institution serves not just a handful of visitors but tens to hundreds of thousands of visitors every year. As shown in Table 11, the average annual value created by each of these eight museums is enormous, in excess of 230 million EUROS/institution. So too, can it be assumed, is the value created by each of the other, more than 300 museums in Finland. Taken as a sector, again assuming that the visitor experiences at these eight museums was reasonably typical to those experienced at other Finnish museums, we can use 2019 annual Finnish national visit data (Finnish Heritage Agency, 2020),[3] to project that collectively, **Finnish museums annually generate on the order of 6.5 billion EUROS in public, well-being-related, value.** These findings lay the foundation for each of the eight museums in this study as well as the broader Finnish museum community to make the case to the public, as well as to the decision makers and policy makers who support and fund the nation's museums, that Finnish museums do indeed create significant Finnish societal value.

However, ultimately value cannot be judged merely by the gross benefits created since it costs money to create this value – enter cost-benefit analysis. As the cost-benefit analysis data shown in Table 7 reveals, each of these eight museums, and by extension each of the more than 300 other museums in Finland, are creating this value in an amazingly cost-effective manner. The average ratio of benefits to costs of these eight museums was 2 917%, or roughly 30 € of benefit generated for ever 1 € spent. This is a very significant cost-benefit ratio. For example, social economist David Martin (2020) advocates using a significantly more stringent formula for deriving cost-benefits; one that halves the benefit and doubles the costs. After studying hundreds of public sector and non-profit organizations, Martin has found that any public service that delivers a total value in excess of 200% is creating significant public value. Others have come to similar conclusions (e.g., Clark, 2006; Weinstein & Bradburd, 2013). Using this more stringent formula, the eight museums in this study delivered a public value of 729%, more than 3.5 times Martin's threshold for cost-effectiveness. This fact, too, is something that Finnish museums can use in justifying the value of the experiences they support for the public.

There was evidence that both assessments of the value of actual museum experiences and the monetary value assigned to museum-related leisure outcomes increased as a function of age, with perceived value incrementally and significantly increasing with every year of age. This was true for

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[3] NOTE: We used 2019 data as it was likely closer to the study year than 2021 data and 2022 data was yet to be finalized.

each of the four dimensions of well-being-related value.[4] This age-effect represents an interesting finding from this study; one with potential implications for both policy and practice. Starting with the positive, the museums in this study currently appear to be admirably fulfilling, arguably even exceeding, the needs and value-expectations of older visitors. The not so positive perspective, though, would be the possibility that the opposite may also be true, that the eight museums in the study are under-performing with younger visitors. However, the truth may be more complicated as these findings may or may not warrant the above conclusion since the literature suggests that younger adults consistently rate the value of their experiences lower than do older adults (cf., Carstenson, et al., 2011; Frijters & Bealton, 2012; Stone, et al., 2020), and thus the observed differences may not be cause for museum-specific concern. Although large-scale, quantitative surveys such as this are really useful for identifying relationships and revealing these kinds of patterns, they are much less useful for revealing why such relationships might exist. Thus, additional research on this topic might be warranted.

There were also significant correlations found between income and social well-being and also a scattering of positive correlations between income and a several of the monetary valuations (3 out of the 16 variables). Given that, unlike age, these effects were only true for a very small proportion of the outcomes, these relationships may or may not actually be worth attending to or investigating further. Our inclination at the moment would be to consider these findings interesting, but likely just 'noise' in the data.

Perhaps more interesting, were the findings that did not happen. Most within the museum community have long considered visit frequency to be an important predictor of the value of a visit experience, with it presumed that frequent visitors derive greater value from their visits to a museum than do those who only visit rarely or ocassionaly. However, there was absolutely no evidence in the data that those individuals who visited museums more frequently perceived that they received greater value from their museum visit than did those who infrequently or only occasionally visited museums, at least when it comes to perceived well-being. The data from this study suggests that all visitors, regardless of background or prior museum experience, are capable of having a positive museum experience and that virtually all visitors, again regardless of visit frequency, appeared to find that the experience afforded them with enhanced feelings of well-being.

This outcome was reinforced by the finding that were no significant relationships between those visitors with Museum Cards and those without a Museum Card for outcomes related to Personal, Intellectual and Physical Well-Being. Given that the whole purpose of Museum Cards is to increase the frequency of museum visiting, it follows that Museum Card holders are, almost by definition, likely to be more frequent visitors to museums than those without a Museum Card. As above, there was no evidence in the data that visiting museums more or less frequently influenced visitors' perceptions of the value of their experience.

The one outlier to this pattern was the significant negative correlation between Museum Card ownership/use and Social Well-Being, i.e., Museum Card holders rated their Social Well-Being outcomes lower than did those without a Museum Card. A very likely explanation for this negative relationship, though unfortunately not one that is possible to verify with the current data set since data on the 'social arrangement' of visitors was not collected, is that anecdotally it has been observed that a larger number of Museum Card holders visited museums alone, particularly art

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[4] NOTE: Should it ever be decided to use this data to make comparisons between these 8 museums, these age-related factors would need to be taken into consideration as the age-profile of visitors to the eight museums significantly differed (t=-6.585, p<.001).

museums. Given that social interactions with family and/or friends during the visit is emphasized in our measures of Social Well-Being, individuals visiting a museum by themselves would likely rate these outcomes as low or non-existent, thus, driving down their ratings of perceived Social Well-Being. This hypothesis could, and probably should be tested.

So where do we stand at the conclusion of this investigation? We certainly stand more informed about the nature and extent of value created by each of the eight participating museums individually, collectively, and by extension, about Finnish museums in general. The rigorous measurement of the well-being-related value created at each of these eight museums substantiates the hypothesis that museum-going is a valuable experience for those adults who partake in it, as well as substantiating that each of the eight participating museums, as well as potentially the Finnish museum sector as a whole, generate significant, long-lasting well-being-related value to their communities. This data can be used to more carefully examine how each institution serves its public. Although the data does not allow us to set a value on how children might benefit from museum experiences nor does it provide specifics on the exact nature of what adult visitors found valuable from their museum visit, it does provide a general profile of adult well-being-related value for each institution; which broad areas of well-being – Personal, Intellectual, Social and Physical – each institution excels at delivering to its adult audiences and in which areas they provide less value. It also provides data on which categories of adult visitors, and to what degree, found percieved value in the experiences they had. The fact that there was a distribution of perceived value suggests that there is room for improvement and that it should be possible to shift perceptions towards higher and longer values. In the final chapter of his book, *The Value of Museums* (2021), and as summarized below in Table 12, Falk offered some specific guidelines for how this kind of well-being-related framing could be leveraged to achieve increases in the value of delivered experiences.

Table 12. Falk's Ten Well-Being-Related Principles for designing better museum experiences.

| Personal Well-Being | |
|---|---|
| 1 | Connect to the User's Identity-Related Needs |
| 2 | Allow Users to "Own" (Co-Create) their Experiences |
| 3 | Surprise and Delight |
| **Intellectual Well-Being** | |
| 4 | Start from the User's Knowledge and Interests |
| 5 | Recognize and Promote Choice & Control |
| 6 | Motivate Users to Want to Do it Again in the Future |
| **Social Well-Being** | |
| 7 | Make it Easy to Do Together with Others |
| 8 | Support Sharing (After the Experience) |
| **Physical Well-Being** | |
| 9 | Make the Experience Comfortable and Convenient |
| 10 | Make the Experience Feel Safe and Secure |

This study should also help each of the participating museums make a financial case for the significant and vital role they play in supporting Finland's public well-being. Each museum, as well as the field generally, can now talk about the significant financial benefits they deliver to their community as a consequence of their core public-facing activities. That not only does each museum deliver significant and important societal benefits, they do so in a highly cost-effective manner. The fact that not all Finnish citizens currently benefit from these experiences should be viewed as an opportunity not a problem. Given the potential benefits that museum-going delivers, would it not be

wonderful if more people understood how beneficial a visit to a museum could be? Would it not be wonderful if museums had the resources to find ever-better ways to attract and serve a larger audience? With greater support, museums could both broaden their audiences and deliver greater value to society. The findings from this research strongly suggest that doing so not only makes sense socially but also financially.

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