

## Appendix A. Survey

### Appendix A1. Survey questions

The research presented in the paper is based on the data collected with the use of an online survey (CAWI), including the following questions (there are separate series for museums, theatres, and cinemas) provided originally in Polish:

Q: *Have you been to a museum/theatre/cinema in Warsaw during the last 12 months?*

A1: Yes

A1.1.[If ‘Yes’] How many times? [single answer multiple choice question: 1-12+]

A2: No.

Subsequent questions were presented only to respondents who answered “Yes” to the question above.

*Think about your last visit to a museum/theatre/cinema in Warsaw. The questions below regard only this last visit.*

Q: *Which museum/theatre/cinema did you visit the last time?*

A1: [open-ended] \_\_\_\_\_

A2: I don’t remember. [when chosen the single answer multiple choice question appears, including the “I don’t know” answer option]

[MUSEUMS TO CHOOSE: Centrum Nauki Kopernik, Azji i Pacyfiku, Fryderyka Chopina, Historii Polski, Historii Żydów Polskich, Historyczne m.st. Warszawy, Jana Pawła II i Prymasa Wyszyńskiego, Literatury im. A. Mickiewicza, Łowiectwa i Jeździectwa, Marii Curie-Skłodowskiej, Marii Dąbrowskiej, Narodowe, Pałacu Króla Jana III (Pałac w Wilanowie), Powstania Warszawskiego, Sportu i Turystyki, Sztuki Nowoczesnej, Teatralne, Techniki, Muzeum w Łazienkach Królewskich, Wojska Polskiego, Zamek Ujazdowski, Ziemi PAN, Żydowskiego Instytutu Historycznego (ŻIH), Państwowe Muzeum Archeologiczne, Państwowe Muzeum Etnograficzne, Zachęta Narodowa Galeria Sztuki, Zamek Królewski]

[THEATRES TO CHOOSE: Ateneum, Baj, Guliwer, Komedia, Kwadrat, Lalka, Muzyczny Roma, Na Woli, Nowy, Powszechny, Rampa, Rozmaitości, Scena Prezentacje, Syrena, Współczesny, Ochoty, Studio, Dramatyczny, Żydowski, OCH-Teatr, Druga Strefa, Kamienica, Konsekwentny, Montownia, Polonia, Komuna//Warszawa, Studio Teatralne Koło, Studium Teatralne, Młyn, Polski, Praga, Mazowiecki Teatr Muzyczny im. Jana Kiepury, Warszawska Opera Kameralna, Teatr Narodowy, Teatr Wielki - Opera Narodowa, Projekt Teatr Warszawa, 6. Pietro, Capitol, IMKA, Studio Buffo, Unia Teatr Niemożliwy, Sabat, Scena Współczesna]

[CINEMAS TO CHOOSE: Alchemia, Atlantic, Cinema City Arkadia, Cinema City Bemowo, Cinema City Mokotów, Cinema City Promenada, Cinema City Sadyba (IMAX), Femina, Iluzjon, KC, LAB, KINOkawiarnia Stacja Falenica, Kinoteka, Kultura, Luna, Multikino Targówek, Multikino Ursynów, Multikino Złote Tarasy, Muranów, Praha, Rejs, Świt, Ursus, Wisła]

Note: The pilot version of the survey contained an open question where the respondent could have indicated an institution not included in the closed list presented. Once indicated as visited, the institution was incorporated into the list.

Q: *How much did you pay for a ticket to this museum/theatre/cinema (on average per person)? Please, indicate the price:*

A1. [open-ended] ..... PLN per a person  
**or use the scale below:**

A2.1 Less than 15 PLN

A2.2. 15-24 PLN

A2.3. 25-34 PLN

A2.4. 35-44 PLN

A2.5. 45-54 PLN

A2.6. 55-64 PLN

A2.7. 65-74 PLN

A2.8. 75 PLN or more

A2.9. I don't know/I don't remember.

## Appendix A2. Sample representativeness and descriptive statistics

Table A2.1. Sample representativeness. Descriptive statistics of samples used in the study in comparison with the population of inhabitants of Warsaw\*.

	full sample	museums-goers	theatre-goers	cinema-goers	population (inhabitants of Warsaw)
sample size	1699	1060	1322	1430	1448444
frequency					
<b>Sex</b>					
woman	54%	55%	54%	54%	55%
man	46%	45%	46%	46%	45%
<b>age</b>					
age 18-24	13%	13%	13%	14%	8%
age 25-44	39%	38%	38%	41%	40%
age 45-64	33%	33%	34%	32%	31%
age 65+	15%	15%	16%	13%	22%
<b>education</b>					
basic education	16%	13%	13%	14%	17%
middle education	43%	41%	42%	42%	39%
higher education	41%	46%	45%	44%	39%

\* According to *t*-test, the full sample is representative on the 1% level with respect to sex, people aged 25-44, and the best and the worst educated social groups, and on the 5% level to people aged 45-64. The youngest and the oldest groups as well as middle education are slightly underrepresented. The characteristics of the population are given for 2013 in case of sex and age, and for 2011 in case of education due to the availability of data. Source of data for population: Local Data Bank, Statistics Poland, online: <https://bdl.stat.gov.pl/BDL/start>, access: 26.06.2019.

Table A2.2. Descriptive statistics of the discrete variables used in the study (frequency).

	full sample	museums-goers	theatre-goers	cinema-goers
<b>size of a household</b>				
1 person in the household	10%	9%	8%	9%
2 people in the household	29%	27%	28%	28%
3 people in the household	31%	29%	31%	31%
4 people in the household	21%	23%	22%	22%
more than 4 people in the household	10%	11%	11%	10%
<b>employed</b>	81%	83%	83%	83%
<b>number of children</b>				
have no children	70%	67%	69%	68%
have 1 child	19%	22%	20%	20%
have 2 children	9%	10%	10%	10%
have more than 2 children	1%	1%	1%	2%
<b>born in Warsaw (if born)</b>	57%	58%	58%	60%

Table A2.3. Descriptive statistics of the continuous variables used in the study.

	years living in Warsaw				household income (in PLN)*			
	mean	std	min	max	mean	std	min	max
<b>full sample</b>	33.92	18.49	0	93	5523.16	3960	0	25000
<b>museums-goers</b>	34.14	19.00	0	93	5745.36	4159	0	25000
<b>theatre-goers</b>	34.38	18.83	0	93	5773.72	4004	0	25000
<b>cinema-goers</b>	33.22	18.34	0	93	5723.95	4137	0	25000

\*1,360 observations for the full sample, 862 for museum-goers sample, 1,054 for theatre-goers, 1142 for cinema-goers

Table A2.4. Total cost variable – descriptive statistics (in PLN).

	mean	std	min	max
<b>total cost per visit to a museum</b>				
full sample	20.58	11.28	0.11	151.89
museum-goers	27.39	14.59	0.48	273.77
<b>total cost per visit to the theatre</b>				
full sample	72.33	26.66	4.12	255.91
theatre-goers	79.65	28.49	7.23	431.83
<b>total cost per visit to the cinema</b>				
full sample	39.48	14.83	1.65	380.81
cinema-goers	31.45	9.55	1.33	205.15

## Appendix B. Ranking of public institutions

Table B1. Rankings of the cultural institutions in Warsaw (museums, theatres) according to their estimated economic use benefits generated and subsidies received (EUR).

Museums	CS ranking	Aggregated CS	Subsidy ranking	Subsidy	Theatres	CS ranking	Aggregated CS	Subsidy ranking	Subsidy
Centrum Nauki Kopernik	1	16,801,371	11	1,963,584	Teatr Wielki	1	1,009,408	1	20,465,394
Powstania Warszawskiego	2	12,931,273	10	2,146,205	Jana Kiepury	2	603,443	17	713,749
Narodowe w Warszawie	3	6,783,353	1	8,866,443	Komedia	3	445,750	24	119,114
Zamek Królewski	4	2,867,195	2	5,998,562	Ateneum	4	383,122	9	1,477,020
Łazienki Królewskie	5	2,264,353	3	5,724,104	Powszechny	5	375,565	6	1,786,717
Pałac w Wilanowie	6	1,849,808	4	5,315,243	Teatr Narodowy	6	362,314	2	6,101,588
Zachęta	7	1,516,955	21	377,117	Rampa	7	340,334	16	976,739
Kolejnictwa	8	1,491,318	17	765,082	Na Woli	8	320,079	13	1,072,030
MSN	9	1,422,082	5	4,914,030	Dramatyczny	9	318,354	5	3,263,737
Fryderyka Chopina	10	1,420,489	8	3,788,578	Lalka	10	220,529	18	607,484
Historii Żydów Polskich	11	1,271,154	14	1,292,869	Muzyczny Roma	11	165,077	12	1,429,374
Dom Spotkań z Historią	12	953,945	16	945,769	Żydowski	12	160,350	8	1,665,697
Państwowe Muzeum Etnograficzne	13	880,509	15	1,174,596	Kwadrat	13	156,416	23	196,539
Państwowe Muzeum Archeologiczne	14	588,648	13	1,639,662	Syrena	14	152,966	15	983,206
Historyczne m.st. Warszawy	15	533,317	6	4,740,042	Współczesny	15	143,822	10	1,548,488
Łowiectwa i Jeździectwa	16	468,282	18	622,665	Ochoty	16	119,219	21	317,797
Azji i Pacyfiku	17	411,503	19	516,414	Polski	17	111,110	4	3,145,135
CSW	18	410,054	9	3,476,610	Nowy	18	101,621	14	1,095,853
Sportu i Turystyki	19	237,979	20	512,776	Studio	19	80,882	11	1,918,815
Historii Polski	20	235,372	7	4,195,548	Guliwer	20	74,292	19	595,572
Literatury	21	59,241	12	1,696,376	Rozmaitości	21	68,495	7	1,667,603
					Scena Prezentacje	22	49,723	22	285,875
					Baj	23	49,516	20	562,220
					Opera Kameralna	24	35,093	3	3,848,649