Web Appendix 1: Arts participation variables included in the Latent Class Analysis.

% Participate: the percentage of total participation in the sample. % Monthly: the proportion of participants (i.e. of those who have participated at least once in the last year) who participate monthly or more.		
In the last 12 months, have you done any of these activities? Remember don't include paid work, school or academic activities.		
Variable names	*% Participate*	*% Monthly*
Ballet	0.45	38.01
Other dance (for fitness)	3.95	75.92
Other dance (not for fitness)	8.97	55.80
Sang to an audience or rehearsed for a performance	3.79	48.17
Played a musical instrument to an audience or rehearsed	2.81	57.15
Played a musical instrument for your own pleasure	9.91	74.03
Written music	2.12	57.11
Rehearsed or performed in a play / drama	1.74	44.42
Rehearsed or performed in an opera / operetta	0.38	52.73
Painting, drawing, printmaking or sculpture	11.92	55.84
Photography as an artistic activity (not family or holiday)	8.62	57.18
Films or videos as an artistic activity (not family or holiday)	1.90	29.13
Used a computer to create original artworks or animation	9.32	53.27
Textile crafts such as embroidery, crocheting or knitting	13.90	61.06
Wood crafts such as wood turning or carving	4.02	44.40
Written any stories or plays	3.07	44.41
Written any poetry	3.89	36.67

Web Appendix 2: Fit Statistics for Latent Class Analysis of 16 Arts Participation variables (excluding Ballet).

Latent Variable	L²	BIC(L2)	AIC(L2)	df	d
1-Cluster	56110.84	-681935	-74927.2	65519	0.2297
2-Cluster	22230.24	-715624	-108774	65502	0.1023
3-Cluster	15925.46	-721737	-115045	65485	0.0737
4-Cluster	14000.74	-723470	-116935	65468	0.0654
5-Cluster	12307.13	-724973	-118595	65451	0.0571
6-Cluster	11201.76	-725886	-119666	65434	0.0526
7-Cluster	10564.7	-726332	-120269	65417	0.0479

Notes:
L² the likelihood ratio χ^2 statistic
BIC(L^2) is the Bayesian Information Criterion derived from the likelihood ratio χ^2 statistic
AIC(L^2) is the Akaike Information Criterion derived from the likelihood ratio χ^2 statistic
df lists the degrees of freedom
d is the dissimilarity index.

Web Appendix 3: Prior and Conditional Probabilities for the 5 class Latent Class Model for Arts participation, 16 arts participation variables (excluding Ballet).

N=78,011					
	None	**Artist**	**Dance & Art**	**Musician**	**Omnivore**
Prior Probabilities	0.7634	0.0984	0.0944	0.0303	0.0135
Conditional Probabilities of Participation					
Dance					
Ballet	-	-	-	-	-
Dance (Fitness)	0.02	0.0447	0.1756	0.0235	0.1849
Dance (Not Fitness)	0.0542	0.1082	0.3174	0.1035	0.3404
Music					
Sing Public	0.0065	0.0116	0.1477	0.3465	0.5429
Instrument Public	0.0017	0.0005	0.0144	0.6273	0.4751
Instrument Pleasure	0.0397	0.1768	0.1575	0.888	0.709
Write Music	0.0016	0.0141	0.014	0.3646	0.4648
Performance					
Play/Drama	0.001	0.0134	0.0917	0.0688	0.3436
Opera	0	0	0.0162	0.0345	0.0903
Art and crafts					
Paint/Draw/Sculpt	0.0469	0.4258	0.3004	0.1675	0.5985
Photography	0.0287	0.4772	0.0703	0.1416	0.4776
Film/Video Art	0.0021	0.114	0.0079	0.0335	0.3279
CPU Art	0.0312	0.4642	0.1147	0.1778	0.5528
Textiles	0.1069	0.2115	0.3194	0.0957	0.2606
Wood	0.0251	0.1493	0.023	0.075	0.1451
Writing					
Write Story/Play	0.0055	0.1075	0.0953	0.0365	0.4321
Write Poetry	0.0074	0.1136	0.1421	0.0657	0.4965

Notes*:* Light-gray shading indicates probabilities .20-.49. Dark-grey indicates probabilities of >.50 Not all probabilities are equal to 1 due to rounding

Web Appendix 4: Prior and Conditional Probabilities for the 5 class Latent Class Model for Arts participation from R latent class model

N=78,011					
	None	**Artist**	**Dance & Art**	**Musician**	**Omnivore**
Prior Probabilities	0.763	0.095	0.099	0.031	0.012
Conditional Probabilities of Participation					
Dance					
Ballet	0.00	0.00	0.03	0.00	0.08
Dance (Fitness)	0.06	0.11	0.32	0.09	0.40
Dance (Not Fitness)	0.02	0.05	0.22	0.03	0.30
Music					
Sing Public	0.01	0.01	0.13	0.35	0.62
Instrument Public	0.00	0.00	0.01	0.64	0.44
Instrument Pleasure	0.04	0.17	0.15	0.89	0.64
Write Music	0.00	0.02	0.01	0.41	0.39
Performance					
Play/Drama	0.00	0.02	0.08	0.06	0.39
Opera	0.00	0.00	0.01	0.03	0.10
Art and crafts					
Paint/Draw/Sculpt	0.05	0.44	0.28	0.18	0.55
Photography	0.03	0.50	0.07	0.16	0.44
Film/Video Art	0.00	0.13	0.01	0.05	0.32
CPU Art	0.03	0.45	0.10	0.17	0.48
Textiles	0.11	0.21	0.33	0.09	0.26
Wood	0.02	0.14	0.02	0.07	0.11
Writing					
Write Story/Play	0.01	0.12	0.07	0.04	0.43
Write Poetry	0.01	0.13	0.11	0.08	0.47

Notes: Not all probabilities are equal to 1 due to rounding. Light-gray shading indicates probabilities .20-.49.

Dark-grey indicates probabilities of >.50. Latent class models were performed using poLCA.