Index

aboriginal rock paintings and wilderness recreation in Canada 105–16, 259, 264
methodology 106–12
econometric estimation 110–12
questionnaire 108–10
study area 106–8
results 112–14
accessibility 11
accident costs 95, 100, 101
acid deposition reduction to marble monuments in Washington DC 159–78, 259, 264, 268
choice experiment data collection 162–71
application 162–3
survey administration 169–71
survey instrument development 163–9
choice experiments and modeling willingness to pay 160–2
empirical results 171–7
conditional indirect utility function estimation 171–3
welfare estimates 173–7
Adamowicz, W.L. 105–16, 160
adjustment parameter 63
admissions see entrance fee
age 57, 108
marble monuments in Washington DC 172, 173, 174, 176, 177
monasteries in Bulgaria 79, 80, 83, 84
Royal Theatre (Copenhagen) 220–1, 223, 224
Agence Pour La Dedensification et la Rehabilitation de la Medina de Fes 120–1
air pollution 24, 36, 37, 39
see also acid deposition reduction; Lincoln Cathedral
Ajzen, I. 44
altruistic values 7
anchoring 62, 66, 211–12, 243
Andreoni, J. 248
Antoci, A. 241
appearance, change in 11
Argentina 262, 264
Arrow, K.R. 74, 205, 206, 212, 238, 240
art galleries (Turin) 264
Ashworth, G.J. 121
attitudinal variables 95–6, 173
Lincoln Cathedral 58–9, 60, 61, 62
monasteries in Bulgaria 74, 75–7, 79, 80, 83
Australia 260, 265
authenticity 11
Baia, Castle of 146
balance sheet structure 190
Batsell, R.R. 160
behavioural variables 41, 43–4, 79
Ben-Akiva, M. 161, 173
benefit transfer 144, 268
benefits 202, 214, 218–19, 222–6
aggregated 38–9
bequest values 7, 90, 203, 229
Campi Flegrei (Naples) 145, 146, 148, 157
Beymer, R. 105, 114
bias:
  interviewer 130
  question-ordering 155
  response-selection 130
  selection 73, 227, 228
  self-selection 22, 73, 82, 201, 226–8
  sequencing 155, 156
  starting point 23, 59, 62, 63, 65
  strategic 212
bid level 59, 60, 62
Bille Hansen, T. 200–30
Bishop, R.C. 204, 242
Bohm, P. 204, 212
Bølling, J. 261, 267
Bovaird, A.G. 40, 46–7
Box-Cox logit model 197
Box-Cox transformed bids 195
Boxall, P.C. 105–16
Boyle, K.J. 25
Bravi, M. 184–99
British Museum 261, 265
Brown, G. 160
Buchanan, T. 160
Bulgaria see monasteries in Bulgaria
Cambridge Economics Inc. 143
Cameron, A.C. 112
Cameron, T. 90, 97, 110
Campi Flegrei (Naples) 142–57, 259, 264
component elements and non-use values 144–6
component and temporal value reliability 143
data sources 146–7
hypothesis test 144
policy implications 155–6
results 148–55
protests and outliers 148–9
stepwise regressions and dummy variables 149–53
welfare measures and within subject tests for embedding 149
theoretical expectations 147–8
Canada see aboriginal rock paintings and wilderness recreation
Campi Flegrei (Naples) 143, 144, 148, 151, 153–4, 155, 156
monasteries in Bulgaria 69, 74
Royal Theatre (Copenhagen) 203, 205, 206, 211, 213
castles 146
see also Warkworth Castle
cathedrals see Durham Cathedral;
Lincoln Cathedral; Nidaros Cathedral
censored regression 72
characteristics value approach 12
Chestnut, L.G. 159–78
choice experiments 159, 176, 177
see also under acid deposition
reduction to marble monuments
choice mechanisms 126–8
Cicchetti, C.J. 203
circumstances of choice 239
collective ethic co-operation 249–50, 251
Colon Theatre (Argentina) 262, 264
component elements 143, 144–6
Conaway, M.B. 118–39
conditional indirect utility function 171–3
confidence intervals 144, 195
conjoint analysis method 23
conservation, perceived state of 84
conservation, positive attitude towards 84
construct validity 25, 143
content validity 143
contingent:
choice method 23
ranking 23, 156
valuation 24–6
Copenhagen: Royal Theatre 200–30, 259, 265
background and purpose 200–1
benefits 202
elicitation 206–7
non-use values 202–3
option value 203–4
sample 204
use values 202
welfare concept 205
willingness to pay 207–28
aggregated 209–13
benefit categories (Poisson Model) 222–6
non-response 209
self-selection models 226–8
stated individual 207–8
theoretical validity 228
use-values, non-use values and option values 213–19
Comes, R. 241
cost-benefit analysis 5, 8, 39, 88, 121, 248, 269
Coulton, J.C. 260
criterion validity 25, 41, 42, 143
Croatia 260, 264, 267
Crouch, G.J. 121
Crowther, G. 119
Index

273

cultural:
  budget constraint 240–1
  index 79
  indicators 223, 227
  interests 84
  Cuma, Park of 146
  Cummings, R.G. 155
  Danchev, A. 68–85
  Darles, G. 120
  Delphi approach 122
  Delta method 149
demographic characteristics 57–8, 74, 170–1, 174, 177
  Denmark see Copenhagen
  Dennis, R.L. 177
density estimators 192
dependent children 220–1, 223, 224, 227
  Desvousges, W.H. 155, 213
  Dewdney, S. 105, 106, 116
  Diamond, P.A. 154, 187
dichotomous choice 22, 23, 24
campi Flegrei (Naples) 147, 156, 157
  monasteries in Bulgaria 74
  museums in Italy 188
  ‘napoli musei aperti’ 240
  Royal Theatre (Copenhagen) 206
  see also double-bounded
direct method 213, 248
direct-use values 160, 162, 164
discount rate 174–5
discrete choice 161, 191, 198
distribution function 162
  Dixon, J. 121
  Dobson, J. 47
double-bounded dichotomous choice 23, 57, 65–6
downing, M. 144
drost, A. 121
dubharda, A. 204
  duffield, j.w. 192
dummy variables 149–53
  Durham Cathedral 44–7, 50, 249, 250, 258, 264, 268
easy-riding 241
econometric analysis 81–2, 96–100, 110–12, 191–2
economic efficiency 211
ecosystem impacts 58
education 57, 62, 108
  benefit 203
  Fes Medina (Morocco) 129, 133
  monasteries in Bulgaria 75, 79, 83, 84
  Royal Theatre (Copenhagen) 220–1, 223, 224, 227
  value 229
  efficiency indicators 189
  Elias, D. 116
elicitation 22–3, 25, 266
  Copenhagen: Royal Theatre 206–7
  Fes Medina 128
  Lincoln Cathedral 65, 66
  marble monuments in Washington DC 159
  museums in Italy 188
  ‘napoli musei aperti’ (Naples) 240, 242–3
embedding:
  Campi Flegrei (Naples) 143, 145, 146, 148, 149, 154, 156
  Nidaros Cathedral (Norway) 31, 32, 33, 35, 36, 38
employment 220–1, 223, 224
endogenous variables 222
  Englin, W.L. 105–16
  English Heritage 50, 57, 60, 87, 88
  entrance fee 15–16, 22, 41, 42, 50
  environmental benefits 100
  environmental costs 100
  Environmental Economics 3
  environmental policy 3
  Environmental Protection Agency 268
  environmental quality 90
  Escher, A. 119
  estimators 192, 194, 195
  ethnicity 172, 173, 174, 176, 177
  Euler’s constant 162
  Europe 122
  excludibility 22, 51
  existence values 7, 90, 145, 156
  existing studies review 257–69
  existing empirical evidence, lessons from 263–7
  future research needs 268–9
  policy use 267–8
  review and classification 257–62
  expected consumer surplus 203
expressed preference technique 50
Exxon Valdez 248
fallacy of motivational precision 213
Fes Medina (Morocco) 118–39, 258, 264, 267
background 118–19
methodology 122–31
contingent valuation instruments
development 123–30
field work 130–1
sampling design 122–3
results 131–9
Fes foreign visitors 135–6
Fes visitors 131–5
non-Fes foreign visitors 136–9
World Bank project 119–22
fiduciary mechanism 128
Fischhoff, B. 240
Fishbein, M. 44
Foster, T. 261
free-riding 7, 20, 22
Durham Cathedral 45
monasteries in Bulgaria 85
‘Napoli Musei Aperti’ 240, 241, 249
Nidaros Cathedral (Norway) 31
Freeman, A.M. 121, 203, 204
Frey, B.S. 200, 204
Fridberg, T. 204, 206
Furby, L. 240
Galleria Civica see Italy
gamma distribution 112
Garrod, G.D. 40–51
Gauss programming language 171
gender 57, 79, 108
marble monuments in Washington DC
172, 173, 174, 176, 177
Royal Theatre (Copenhagen) 220–1, 223, 224
generosity attribute 83, 84
generosity proxy 79
geographical distance 220–1, 223, 227
Girard, F. 146
global cultural heritage goods 8
good, description of 21
Goodland, R. 120
Gordon, I.M. 205
Graham, D.A. 204
Grainger, R. 47
Grainger Town (Newcastle-upon-Tyne) 47–9, 50, 51, 54, 259, 264
grant aid 50
Green, J. 238, 249
Green, P.E. 160
Greene, W.H. 72
Greenley, D.A. 213
Griliches, Z. 12
Grogger, J.T. 112
Grosclaude, P. 260
Grudemo, S. 88
Haab, T.C. 132, 192
Hanemann, M. 149, 155, 238, 246, 247
Hanemann, W.M. 191, 192, 195, 205
Harrison, A. 116
Hartman, R.C. 204
Harvard Graduate School of Design 120–1
Hausman, J. 112, 187
health effects 58
Heberlein, T. 242
Heckman, J.J. 73, 82, 225, 227, 228
hedonic pricing technique 12–14
Hellerstein, D.M. 110
Heritage Lottery Fund 85
Herries, J. 63
Hett, T. 261
Hicksian compensation variation 71, 89
Hicksian welfare measures 246
history (recorded heritage) centre (UK)
165, 261
Hoehn, J.P. 21, 59, 122, 139, 154, 156, 240
household size 57
housing 12–14
Huppert, D.D. 97
Hyman, J. 121
hypothetical questions 212
hypothetical scenario 21–3, 55
implicit price function 13, 14
income 57, 90, 108, 149
Fes Medina (Morocco) 129–30, 133
Lincoln Cathedral 62, 63, 64
marble monuments in Washington DC
172, 173, 174, 176, 177, 178
monasteries in Bulgaria 75, 79, 80, 83, 84
Royal Theatre (Copenhagen) 220–1, 223, 224, 227
maximum likelihood technique 59–60
aboriginal rock paintings in Canada 113
monasteries in Bulgaria 72
museums in Italy 194
‘Napoli Musei Aperti’ 246
Royal Theatre (Copenhagen) 227
Stonehenge 90
membership fees 50
Mills ratio 73
Mitchell, R. 25, 41, 89, 118–39, 161, 238, 405
Campi Flegrei (Naples) 143, 148, 155, 156
monasteries in Bulgaria 69, 74
Royal Theatre (Copenhagen) 203, 205, 206, 211, 213
Moffitt, R.A. 73, 82
monasteries in Bulgaria 68–85, 258, 264
Bachkovo Monastery 75
Directory of Religious Affairs 68
methodological framework 71–3
Ministry of Culture 68
National Institute of Cultural Monuments 68
policy implications 83–5
Rila Monastery 68, 71, 75, 83, 85
survey instrument 74–5
Trojan Monastery 75
uses and attitudes 75–6
willingness to pay 76–83
Morey, E.R. 159–78
Morocco:
Casablanca 118, 122, 123, 130, 131, 136, 138
Government 124, 126, 139
Marrakesh 124, 134, 137
Meknes 124, 134, 137
Ministry of Tourism 135
Rabat 124, 134, 137
Tangier 118, 122, 123, 130, 131, 136, 138
see also Fes Medina
Morrison, W.G. 248
Mourato, S. 68–85, 87–102, 257–69
museums see Italy: Galleria Civica and Rivoli Castle museums; ‘Napoli Musei Aperti’
‘Napoli Musei Aperti’ (Naples) 238–51, 259, 265, 268
individual preferences valuation 239–48
cultural good to be valued 239
payment principle results 244–5
questionnaire design 239–43
sample description 243–4
survey execution 243
valuation function 247–8
willingness to pay estimation 245–7
policy analysis 248–50
National Oceanic and Atmospheric Administration:
Campi Flegrei (Naples) 143, 147
Lincoln Cathedral 54
monasteries in Bulgaria 74, 75
‘Napoli Musei Aperti’ 238, 242
Royal Theatre (Copenhagen) 205, 206
National Trust 57, 60, 87
Navrud, S. 10–27, 31–9, 238, 257–69
negative binomial model 112, 113, 114
negative predicted value 222
neighbourhood characteristic 13
Neill, H.R. 25
net value 15
Neuchatel (Switzerland) 89, 260, 264
Nidaros Cathedral (Norway) 31–9, 260, 264, 268
aggregated benefits 38–9
cost-benefit analysis and policy implications 39
results 34–7
survey 32–4
noise levels 89, 95, 100
non-excludibility 3–4, 11, 20
non-market goods 12, 43–4, 178
non-market valuation 8, 10, 12, 205
Northumbria 41, 50, 51
non-profit 249–50
non-rival public goods 4–5, 11
non-use values 8, 14, 19, 20, 26
Campi Flegrei (Naples) 142, 143, 144–6
monasteries in Bulgaria 71
Nidaros Cathedral (Norway) 34, 38
Royal Theatre (Copenhagen) 201–4, 206, 213–19, 223, 227, 229
Stonehenge 88
non-user benefits 11
Nopiming Park see aboriginal rock paintings
Northern Hotel (Fort Collins) 261, 264
Northumbria 40–51
  Durham Cathedral 44–7, 50, 249, 250, 258, 264, 268
  Grainger Town (Newcastle-upon-Tyne) 47–9, 50, 51, 259, 264
  Warkworth Castle 41–4, 50, 264
Norway see Nidaros Cathedral

object of choice 239
one-time payment 174, 175, 177
open-ended format 23, 74, 75, 206, 209
opportunity cost of travel time 17, 18
option price 203
option values 7, 90
  Campi Flegrei (Naples) 145, 146
  Royal Theatre (Copenhagen) 201, 203–4, 213–19
ordinary least-squares regression 71, 72, 73, 227
originality 32, 33, 34, 35
Ostro, B.D. 177
outliers 148–9
over-riding 240, 241
overdispersion 111–12, 113
overvaluation 249
Ozuna, T. 144

Pagioloa, S. 260
pairwise choice 159, 169, 171, 177
parameter/parametric:
  analysis 196
  bootstrap procedure 195
  estimates 137, 154, 228
  vector 192
Pareto criterion 211
participation 73, 83
passive-use values 121, 156, 162, 164, 178
  ‘Napoli Musei Aperti’ 238, 249, 250
Patterson, D.A. 192
payment:
  -card data 176–7
  decision 83
  equation 73
  ladder 97, 101–2
  principle 242, 244–5
  vehicle 22, 126–8
Pearce, D.W. 84, 257–69
perceptions 79, 80
performing and visual arts in Sydney
(Australia) 260, 265
perpetual annual payment 175
Peru 261, 264
physical characteristics 13
picture library (UK) 261, 265
Piperno, S. 248
Plummer, M.L. 204
Poisson:
  distribution 112, 221
  model 111, 201, 222–6, 227, 228
  regression 225
Pollicino, M. 53–66
pollution 32
see also air pollution
Pommerehne, W.W. 200, 238
Powe, N.A. 42
prehistoric cave paintings in the Peak District (UK) 260, 264
preservation:
  marble monuments in Washington DC 161, 162, 169, 171, 172, 173, 174
  monasteries in Bulgaria 72, 78
Nidaros Cathedral 34, 35, 36, 37, 38, 39
prestige value 203, 229
price:
  differentials 12, 13
  discrimination 46, 47
  points 123, 128–9
  sensitivity 64
  two-tier 85
probability densities 197
probability of payment 61
probit analysis 73, 79, 98, 134, 225, 227, 245
propensity to accept 60
protest 148–9
  bids 212
  decision 83
public goods 3–5, 11, 41, 51, 68
congestible 5
non-rival 4–5, 11
purchase, actual 25
question ordering bias 155
Ragland, S. 159–78
Valuing Cultural Heritage

Rajinovich, G. 105, 114
Randall, A. 21, 59, 122, 139, 154, 156, 203, 240
random parameters model 178
random utility model 19, 23, 161, 191
Ready, R.C. 10–27, 257–69
reductionistic method 213–15, 218, 225, 229
referendum format 240–1
registration system 108
renovation 49, 50
response-selection bias 130
responsibility, sense of 83, 84
restoration 49, 50
Nidaros Cathedral (Norway) 32, 34, 35, 36, 37, 38, 39
revealed preference 12, 25, 27, 35
aboriginal rock paintings in Canada 108, 109, 110, 113
Riganini, P. 142–57
Rivoli Castle see Italy
road options see Stonehenge
Robb, A. 195
Roche Rivera, H. 262
Roe, B. 160
Rosen, S. 12
Rossmann, K.G. 159–78
Royal Theatre see Copenhagen
Sacco, P.-L. 241
St. Genevieve Academy 261, 265
Samuelsonian optimal condition 248
Sandler, T. 241
Santagata, W. 238–51
Scarpa, R. 184–99
scope effects 31, 65, 143, 155, 163
season tickets 47
selection bias 73, 227, 228
self-selection bias/models 22, 73, 82, 201, 226–8
sequencing bias/effects 155, 156
Sherman, R. 121
Shogren, J. 63
Signorello, G. 238–51
Simonis, D. 119
Sinden, J.A. 205
single-bounded discrete choice 238, 240, 242, 246
Sirchia, G. 184–99
site choice models 17–18
site quality 17, 18
Silberman, J. 222
Smith, V.K. 204, 213, 239
socio-economic characteristics:
aboriginal rock paintings in Canada 110
Lincoln Cathedral 60, 62
monasteries in Bulgaria 79
museums in Italy 193
‘Napoli Musei Aperti’ 243
Royal Theatre (Copenhagen) 207, 228
see also age; education; gender; income; ethnicity
Soguel, N. 89, 260
souvenirs sales 50
spike logit model 246
Split (Croatia) 260, 264, 267
Srinivasen, V. 160
standardized cumulative normal distribution 59–60
Starrett, D.A. 238
starting point bias 23, 59, 62, 63, 65
state 249–50
stated preference 12, 19–26, 27, 41
aboriginal rock paintings in Canada 108
Campi Flegrei (Naples) 156
contingent valuation application 25–6
contingent valuation response reliability 24–5
hypothetical scenario 21–3
stated purchase 25
statistical regression techniques 13
Steinbring, J. 116
stepwise results 149–53
Stone Town (Zanzibar) 261, 264
Stonehenge and road options 54, 87–102, 258, 264, 267, 268
attitudinal variables 95–6 econometric analysis 96–100
pay ladder 101–2
previous literature 88–9
survey design and implementation 90–5
theoretical framework 89–90
Strand, J. 31–9
strategic:
answers 212
behaviour 244
bias 212
Index

sub-additivity effects 155
sulfur dioxide 159, 162, 163, 164, 174, 178
Sweden 88
Switzerland 89, 260, 264
Tagemouati, N.L. 130
taxation 22, 51, 94, 99
Lincoln Cathedral 55, 57, 63
monasteries in Bulgaria 74, 84
Nidaros Cathedral (Norway) 31, 32
television transmissions 203
temporal stability 144
temporal value 143
theatres see Copenhagen: Royal Theatre
Throsby, C.D. 200, 248, 249, 260
time savings 95, 100, 101
Title IV see United States Clean Air Act Amendments
Tobit model 72, 73, 79, 82, 83, 221, 222, 228
top-down approach 33
towns see Grainger Town
training 220–1
travel cost method 12, 15–19, 23
aboriginal rock paintings in Canada 110–11, 113
Fes Medina (Morocco) 121
marble monuments in Washington DC 161
site choice models 17–18
visitation frequency models 15–17
zonal 17
trip generating function 16–17, 19
Trivedi, P.K. 112
trust enhancement 241
Turnbridge, J.E. 121
Turnbull, B.W. 131–2, 135, 136–7, 138
Turnbull lower bound 118
Turnbull-Kaplan-Meier estimator 192, 194, 195
Tversky, A. 205
two-step Heckman selectivity model 82
two-tier pricing 85
Type I Extreme Value Distribution 162
unconditional distributions 193
UNESCO 119, 120, 126
see also World Heritage
United Kingdom 184, 260, 264
British Museum 261, 265
see also Lincoln Cathedral; Northumbria
Stonehenge 88
see also UNESCO
United States 128, 184
Atlanta 175
Chicago 175
Clean Air Act Amendments 159, 162, 163, 164, 165, 174, 175, 177–8
Congress 177
see also acid deposition reduction
use-values 8, 14, 19, 20
Campi Flegrei (Naples) 142, 145, 146
monasteries in Bulgaria 71, 85
‘Napoli Musei Aperti’ 238, 249, 250
Nidaros Cathedral (Norway) 34, 35, 38, 39
Northumbria 50
Royal Theatre (Copenhagen) 201, 202, 204, 213–19
Stonehenge 88
utility function 11, 18
conditional indirect 171–3
marble monuments in Washington DC 161, 162, 173, 174
‘Napoli Musei Aperti’ 246
Stonehenge 90
see also random utility
valuation:
estimates 267
function 132, 134, 135, 137, 247–8
methods 10–27
hedonic pricing technique 12–14
stated preference 19–26
travel cost method 15–19
value, definition of 10–12
results 268
scenario 177
value, definition of 10–12
values 89
altruistic 7
direct-use 160, 162, 164
every 7, 90, 145, 156
indirect use 162
intrinsic 145, 156
prestige 203, 229
see also bequest; non-use; option;
passive-use; use-values
vandalism 115–16
vicarious consumption 203, 229
view, loss of 95
Viscusi, W.K. 160
visitation:
  estimates 131–5
  frequency 15–17, 47
  numbers 38
visual intrusion 95, 100
voluntary donation 7, 22
  Durham Cathedral 45, 46
  Lincoln Cathedral 65
monasteries in Bulgaria 85
  Nidaros Cathedral (Norway) 31, 32, 33
  Northumbria 41
wage price functions 14
Warkworth Castle 41–4, 50, 264
Watson, D.O. 108, 112
Webb, M. 120
Weibull distribution 132–3, 137
Weisbrod, B.A. 248
welfare:
  benefits 144
  concept 205
  -enhancing impacts 90, 96
  estimates 173–7
  measures 149
  -reducing impacts 90, 96
West, E.G. 248
Whitehead, J. 261
wilderness recreation see aboriginal rock paintings and wilderness recreation willingness to accept 10, 186, 187, 205 willingness to pay:
  acid deposition reduction to marble monuments in Washington DC 160–2
  Italy 193–8
  Lincoln Cathedral 59–62
  monasteries in Bulgaria 76–83
  ‘Napoli Musei Aperti’ (Naples) 245–7
  see also Copenhagen: Royal Theatre Willis, K.G. 40–51, 142–57, 249–50
Wirth, E. 119
Withers, G.A. 200, 248, 249, 260
within subject tests 149
World Bank 118, 119–22, 267
World Heritage:
  City 119
  List 257, 264
  Sites 68, 83, 87, 118, 121, 269
World Tourism Organization 138
Yates, T. 53–66
yea-saying phenomenon 74, 161
Yen, S.T 113
Zanzibar 261, 264