Index

ABERS
approach 196
estimate for lower bound 200, 204, 206–7, 218
non-parametric estimator 74
adding-up test
adaptation for 70–73
“adding-up condition”
   applying only to goods obtained incrementally 60
   consumer preferences not adhering to 67–8
definition 59
description 61–3
deviations from 68
findings 61, 78
implementation of 59
in previous studies 60
testing 60–61
and adequate response to differences in scope 59, 66, 78
applied to restoration program for river system and lake 60–61, 69–75
elicitation method 63, 67–8, 78
explanation 61–3
findings 61, 78
income effects 64–5, 75–7
incremental parts
   for accelerated restoration 71
   and cognitive burden 64
   findings 61, 78
lack of studies on 59–60
meaning 59
in original study’s design 70
past studies review 66–8
use to test adding-up condition 60–61
limitations of scope tests 58–9
original study 68–70
potential difficulties in implementing
   cognitive burden 64
cost 66
income effects 64–5
provision mechanism 65
for reliability of CV 88–90
results 73–5
study discussion and conclusions 78
and truthfulness 60–61, 69, 78
adequate
   sensitivity to scope 129–37, 140
   use of term 88, 140
algae 60, 69, 100, 117, 257, 259
alum 60, 69–70, 72, 74, 100, 117
American Trader spill litigation 299
anchoring
   biases 178
cost 2, 5, 10, 84
effects 2, 5, 84, 114, 160, 163, 215, 277
as issue surrounding CV 30, 36
in red knot study 55–6
response distortions in 165
behavior
   choice 14, 176–9, 237–8
deterministic heuristic rule
   predicting 239–40
ideal, for validity of WTP estimates 224–5
irrational 48
market 153–4, 156–7
protest 232
purchase 172, 277
randomizer 234
surveys of consumer, in court cases 299–300
use of conjoint methods for predicting 162, 168–70, 173, 176
of utility maximizing 231, 255
behavioral anomalies 36, 112, 154
behavioral economics 155, 157, 159
behavioral response
to high bids 17–18, 36
questions to explore 34–5
ture 23
behavioral theories 78, 154–5, 157, 159,
252
belief in bid values 32–5
bias ratio (BR) 271–4, 277–85
bids
“composite good” approach
bid levels
cognition difficulties with part-
whole relationships
214–15
comparison between composite
good and V1 COS 207
non-monotonicity 200
propensity to shift votes 204–6
marine species preservation case 3
percentage of respondents voting for
alum treatments 73–4
red knot studies
belief in bid values 32–5
bid amount
non-parametric estimates by 27,
32, 35
percentage of respondents
who believed they would
pay more or pay less than
offered 34
percentage of yes responses at
highest 19–21
percentage of yes responses by
27
yes response irrespective of 30
yes responses v. responses
adjusted for “believed” 33
yes responses v. responses
adjusted for certainty 31
bid design 22, 24–5
bid levels
highest 17–23, 25, 28–36
low-end 22–3, 30
share of “yes” votes 50, 52
bid range 18
non-monotonicity 26
truncated 17–18, 23, 25, 27–9, 36
willingness to pay estimates 28–30,
36
and yes-response function 26–7

single-focus approach bid levels
194–6
and WTP for meal vouchers 67–8
“bounded substitution” 84–5, 88–9,
131
brain activity 178–9
budget awareness
adoption in survey 192
in CVM studies 188
findings 219
three related enhancements 193
“wording additions” intended to
enhance 216–19
budget constraint
affecting responses to valuation
questions 189
findings 219
in single-focus valuation method 190
in WTP survey methods 189

California Environmental
Improvement Program 193–4,
199–202, 205–8, 213, 215
California oil spill (COS) study see
“composite good” approach
Carson, R.T. 17, 19, 58, 60–61, 69,
78, 85–8, 91–8, 100, 112–14, 117,
123, 132, 135, 140, 155, 159,
179, 192, 196, 209, 252–3, 255,
257, 271
CBC see choice-based conjoint (CBC)
census weights 54–5
certainty
adjustment 31–2
correction 138–40, 273–6, 279–81,
283–5
elimination of uncertainty 54–5
levels 30–31
questions 30–31
of response 255–6, 262, 266
weights 54–5
cervical screening study 3–4
“cheap talk”
in “composite good” approach 193,
215–16, 218–20
in hypothetical bias study 272, 274,
277, 279–81
in marine species preservation study
6, 228
in scope studies 137–8
choice-based conjoint (CBC)
behavioral effects 154
collection to CVM 154, 160
elicitations directly mimicking
market choice tasks 158
example of typical menu 158
as leading SP method 153
method and applicability 160–62
study design
data analysis 176–7
experimental design 166–8
failures 177–9
important issues 162–5
incentive alignment 170–71
making menus realistic 173–6
reconciliation and validation
171–3
sampling and recruitment 165–6
subject training 168–70
as variable in hypothetical bias study
278, 280–81, 283, 285
choice experiment (CE)
choice
based on absolute costs 5, 11, 14
based on relative costs 5, 11, 14
behavior 14
corner 10–11
in higher cost scale 8–11, 14
in lower cost scale 8–11
pattern for do-something 2, 5, 8, 10
pattern for status quo 8, 10–11, 14
proportions 4–5
tasks, performing 2
choice questions
answering 6
sample 7, 229
components 1
definition 82
fat tails equivalent for 36
in hypothetical bias study 272, 278
implications for choice behavior 14
method 1–2
NOAA sponsored online study 202, 216
popular use of 1
in previous scope test studies 105–6
see also choice-based conjoint
(CBC); dichotomous choice
surveys
choke price 18, 28
cognition difficulties
with part-whole relationships 214–16
sizeable proportion in responses
209–13
cognitive burden 64, 258
“composite good” approach
“cheap talk” 193, 215–16, 218–20
composite good version
priority allocations for
components 201–4
standalone COS
reactions to scenario 204–5
values for program 205–6
valuing Version 2 199–200
context and rationale
foci 188–9
and single-focus approach 189–91
study design 192–4
not-for votes 196–7, 200, 206–8, 214,
218, 220
and single-focus approach 189–91,
199, 205, 208–9, 211, 213–15
single-good version
1995 test-bed study
comparisons 196–8
similarities and differences
194–6
study findings
budget exercise and COS 213–14
cognition difficulties
with part-whole relationships
214–16
sizeable proportion in responses
209–13
lack of sensitivity to huge scope
difference 206–8
plausible rationalization 219–21
within-questionnaire “wording
additions” 216–19
single-good v. composite good
WTP estimates 208–9
Comprehensive Environmental
Response, Compensation, and
Liability Act (CERCLA) 293–4,
296, 299, 301–3, 305
consequentiality 18, 23, 35–6, 189, 191,
219
consumer choice behavior 14, 176–9,
237–8
Contingent valuation of environmental goods

consumer utility theory 83–4, 140, 157, 177
consumer well-being 154, 156, 160, 168, 177–8, 180
contingent valuation (CV)

concepts examined
difficulty answering questions xiii–xv
inadequate response to cost x–xi
inadequate response to number of payments xii
inadequate response to scope xii–xiii, xvii
legal issues xvi
restoration programs xvi–xvii
restricted samples xv
consequentiality as important issue in 35–6

definition 58
estimates of WTP for non-use
environmental goods see scope tests
hypothetical bias presence in 29–30, 36
prominent concern about 58
reliability
adding-up test 88–90
examination of criteria 86–8
gradient 154, 179
as ignored issue 91
question of x, 58
recognizing unreliability xvii
survey problems 300
use of term x
use values 82–3
“warm glow” that can arise in 68
see also “composite good” approach; referendum-style CV
contingent valuation method (CVM)
applicability 153
assumptions of 191
comparison to CBC 154, 160
in “composite good” approach 188–9
as controversial in economics community 160
criteria of reliability of 86–7
development of 159–60
hypothetical bias observed with 220
incentive compatibility as issue for 171
as leading SP method 153
legal obstacles
approaches to estimating non-use value for NRD 295
as highly disfavoured by NRD regulations 301–3
for non-use damages 292–3
as not relied on in non-NRD contexts 299–301
as not relied upon in NRD cases 296–9
trustees abandoning as matter of policy 305–6
trustees avoiding 303–5
as mimicking direct democracy by referendum 170
possible reasons for lack of development 154–5
and “protest no” votes 212
recreational use value of birdwatching 179–80
as sensitive to context and survey design considerations 199
tendency to pass scope tests 112–13, 128
typical referendum elicitations 159
valuation of lost use 162, 179
value of experience of SP methods 154
as widely used to value environmental goods and services 1
COS (California oil spill) see “composite good” approach
cost
adding up v. scope test 66, 90
anchoring 2, 5, 10, 84
annual v. one-time payments xii, 43–56
application to endangered shorebird species xi, 17–36
in CBC studies 167, 177
in choice experiments 1–2
household 24–5, 30, 32, 212, 216–17
in logit model of yes/no vote 76–7
in SP valuation of environmental goods x–xi, 1–14
cost-benefit trade-offs see trade-offs
cost prompts see bids
cost scales
effect of quadrupling costs on mean WTP estimates 8–11, 13–14, 108, 207
effect on consumer goods 14
effect on estimated WTPs 108–12
effect on use and non-use amenities 5, 14
effects on “T&E” species status 11, 14, 207
estimation results for conditional logit model by 12
in four survey versions 6, 8–11
frequency of choosing improvement option by 9
as having strong positive correlation with WTP 108
impact on utility function 11, 14
influence on WTP 2–5
and scope effects 109–12
status quo and corner choices by 10–11, 14
summary of studies 4
cumulative distribution function (CDF) 30
CV see contingent valuation (CV)
CVM see contingent valuation method (CVM)

DDT and PCBs case 296–8, 305
debriefing questions see follow-up questions
Deepwater Horizon oil spill xvii, 121, 303–5
Desvousges, W., Mathews, K. and Train, K. (DMT) 17, 19, 22, 58, 69, 87, 90–92, 98–104, 112–13, 117, 126, 140
dichotomous choice surveys 2, 21–3, 82, 124, 126, 137, 192, 218, 271
disbelief of cost, elimination 54–5
dMT see Desvousges, W., Mathews, K. and Train, K. (DMT)
economic valuation approach 294–5
emotional intensity scales 85
endangered shorebird see red knot studies
Endangered Species Act (ESA) 5–7, 13, 228–9
environmental litigation see legal issues
Exxon Valdez oil spill 86, 305
familiarity 162–3, 168–9, 279
fat tails
and consequentality 35–6
extent in response data 18
in follow-up question responses 35
as manifestation of hypothetical bias 29–30, 36
as manifestation of yea-saying 30, 36
for non-parametric estimators 17, 27
for parametric estimators 17
paths for future research 36
phenomenon xi, 17
sensitivity of WTP to response data 23, 36
truncating high-end bids in response to 36
follow-up questions
to assess validity of SP data
earliest examples 253
in fourth section of survey 258
invalid responses 267
lack of consistency in use of 253
literature review 255–7
method and results 259–66
as used to identify problem responses 254
in hypothetical bias study 276
and identification of protestors 227, 232, 243
as inducing “bargaining” mind-set 162
in red knot study 34–6
yea-saying as result of 124–5
GfK Custom Research 25, 194
Groves, T. 60–61, 69, 78, 171, 252
Hanemann, W.M. 58, 65, 101, 112, 118, 123, 126, 133, 136, 162
Hicksian welfare measures 252
hypothetical bias
adjusting for 30–32
effect of “wording additions” 189
fat tails as manifestation of 29–30, 36
meta-analysis
 current v. prior studies on 270
 data
  bias ratio 271–4
  certainty correction 273–6
  cheap talk 277
  conjoint/choice experiment 278
  familiar good 279
  lab experiment 278
  non-use 279
  private good/public good 278–9
  same respondents v. different respondents 277
  student 278
  regression analysis
  base model 279–81
  fixed effects regression 284–6
  functional form 281–2
  time trend 282–4
  study conclusions 286
  method of detecting 29
  observed with CVM surveys 220

Idaho v. Southern Refrigerated Transport Inc. 298
“inadequate”, use of term 88
incentive alignment 170–71, 175–6, 179
incentive compatibility 163–4, 170–71
income effects 64–5, 75–7

Kahneman, D. 44–5, 86–7, 92–4,
101–2, 119, 154, 157, 160, 178, 191
Knetsch, J.L. 44–5, 86–7, 93, 102, 119,
191
Knowledge Networks 6–7, 25–6, 194,
228–9, 299

lab experiment variable 273–4, 278–85
latent class models 226–7, 230–34
legal issues
 approaches to estimating non-use value for NRD
 contingent valuation methods 295
 restoration-based approach 294–5
 contingent valuation methods
 approach to estimating non-use value for NRD 295
 as highly disfavoured by NRD regulations 301–3

for non-use damages 292–3
as not relied upon in non-NRD contexts 299–301
as not relied upon in NRD cases 296–9
trustees abandoning as matter of policy 305–6
trustees avoiding 303–5
court cases
 American Trader spill litigation 299
Idaho v. Southern Refrigerated Transport Inc. 298
People v. Attransco, Inc., 299
Price v. Philip Morris, Inc 299–300
United States v. Montrose 296–8

NRD regulatory framework and basis for non-use damages 293–4

logit
model
 binary 266
 estimates for low-cost and high-cost data samples 11–13
 mixed form
 v. model with heuristics 235–7,
 244–9
 multinomial 176–7, 226
 of trade-off respondents 238,
 240–45
 traditional 225–6, 231, 242–6,
 248
 of yes/no vote 76
 parametric estimator 17
 of random utility model 1–2
 regression 264–6

Loureiro, M.L. 98, 105–9, 112
Louviere, J. 6, 157–8, 164, 172, 252–3,
257

mandatory payment
 mechanism 191
 survey mode 138
marginal utility
 diminishing 60, 62, 83–5, 88–9, 112,
 129–31
 of income 231
 levels for species improvement 231
Index 313

marine species preservation case inferences from stated preference surveys 225–49 response to cost prompts xi, 5–14 Mathews, K. see Desvousges, W., Mathews, K. and Train, K. (DMT) menus see choice-based conjoint (CBC) migratory bird studies see red knot studies minced pork study 3–4, 14 Mitchell, R.C. 85–6, 94, 117, 155, 252 natural resource damage (NRD) ability of survey methods to measure non-use values in 292 approaches to estimating non-use value for contingent valuation methods 295 restoration-based approach 294–5 assessment (NRDA) 253, 305 better approach for valuation of 306 contingent valuation methods as disfavoured by regulations of 301–3 court decisions associated with 296–9 Deepwater Horizon oil spill xvii, 303–5 regulatory framework and basis for non-use damages 293–4 “no purchase” option 163, 176 NOAA (National Oceanic and Atmospheric Administration) adding up test addressing concerns of 59, 63, 78 clarification of term “inadequate” 88 commissioning study of NRD 296 concern over scope 129, 140 conclusion on respondents’ WTP 114 and consequentiality 189 marine species survey application of 225–7 data 5–11, 228–9, 243 mixed logit analysis of 248 model 230–34, 237 purpose of 58, 86 recommendation of referendum format question 195 recommendation of “Yes/No” follow-up questions 253 reliability of CV 86–8, 91, 140 scope studies 91 non-parametric estimators in red knot study estimates by bid amount 27 adjusted for believed bid 35 adjusted for hypothetical bias 32 estimates of WTP 28–9 WTP and truncation of bids 23, 36 relation to fat tails 17 in river and lake quality study 73–5 non-use amenities 3, 5, 14, 83, 107, 141 see also scope tests: and CV estimates of WTP for non-use environmental goods non-use damages in court case 298 NRD regulatory framework and basis for 293–4 role of trustees 302 survey valuation methods legal obstacles to use 305 non-use by trustees 303–4 non-use, in hypothetical bias study considerations 270, 273, 275, 279–80 variable 279–81, 283–5 non-use values approaches to estimating for NRD CV methods 82–3, 253, 292, 295, 302, 305 restoration-based approach 294–5, 303–4 as at bad end of reliability gradient 154 and brain activity 179–80 in California 192–3 compensation for 294 in court cases 296, 303–4 CV and CE as designed to infer WTP for 108 CVM eliciting from consumers 154–5 effects of training and context 170 greatest need for SP data in application to environmental 180
lack of data to support WTP estimates 252
lack of success stories 180
relation to market benchmarks 162
SP discrete choice experiment for estimating 1
SP methods applicable to 180
NRD see natural resource damage (NRD)

Oil Pollution Act (OPA) 192, 293–4, 296, 299, 301–4
Ojea, E. 98, 105–9, 112
one-time tax 24, 199, 216–17
ordering problem xiv, 164

parametric estimators 17, 22–3, 43–4, 46, 53, 55, 126–7
payments, frequency of, inadequate response to analysis 50–55
annual payments
comparison of split samples 52
implicit discount rates 44–9
lower-bound estimates 53
probit estimates 54
referendum question 50–51
relation to WTP 55–6
sensitivity results 55
share of “yes” vote by bid amount 52
in split-sample survey 43–4, 50
version B of survey instrument 50
literature review 44–9
one-time payments
comparison of split samples 52
implicit discount rates 44–9
lower-bound estimates 53
probit estimates 54
referendum question 50–51
relation to WTP 55–6
sensitivity results 55
share of “yes” vote by bid amount 52
in split-sample survey 43–4, 50
version A of survey instrument 50

People v. Attransco, Inc., 299
power outages study 3–4
present value willingness to pay (PV WTP)
analysis 50–55
conclusion 55
literature review 44–9
survey 49–50
Price v. Philip Morris, Inc 299–300
private good/public good variable 273–4, 278–81, 283–5
probit estimates 54
model of yes/no vote 53
multivariate regressions 138–40
parametric estimator 17, 43
protestors
common practice of excluding 7, 9, 124, 225, 240
definition 7, 9
and sensitivity of lower-bound mean WTP 211–12
in stated preference assessing validity study 253, 255–6, 260
in stated preference inferences study and estimated population share 239–40
model with three heuristics to identify 225
in sensitivity analysis 242–5
status quo only respondents 232
study conclusion on 249
use of latent class models to identify 227
PV WTP see present value willingness to pay (PV WTP)

Qualtrics sample 25–6
random utility model (RUM) 1–2, 8
rational choice model (RCM) 252
red knot studies
fat tails and truncated bids
purpose and method 17–18
related literature 19–23
results
adjusting for hypothetical bias 30–32
belief in bid values 32–4
follow up questions 34–5
willingness to pay estimates 28–30
yes-response function 26–7
study discussion 35–6
survey 24–6
response to frequency of payments analysis 50–55
literature review 44–9
purpose and method 43–4
study conclusions 55–6
survey 49–50
referendum-style CV
in hypothetical bias study 271
red knot studies 18–21, 24–5, 43, 50–51, 55–6
in river and lake quality study 69, 76
in single-focus and “composite good” approaches 190, 192–7, 199–206, 208, 210–13, 218, 220
in stated preference methods study 159–60, 163, 170–71
responsible parties (RPs) 303–4
restoration-based approach 294–5, 301–3, 305
restoration programs
and contingent valuation xvi–xvii
oyster reef 44, 46
pros and cons of voting for 258
for river and lake 60–61, 69–75, 78
wetland 254–67
revealed preference (RP) 82–3, 153–4, 156, 172, 178–9, 219
river and lake quality study see adding-up test
river health improvements study 3–5
sample allocation 3
scope effects 63, 84, 88, 91, 98, 108, 112–13, 123, 128
scope elasticities 112, 129–37, 141
scope insensitivity 83–6, 91, 97, 126, 139–40
scope literature
Carson’s review 91–7, 112–14
DMT’s review 91, 98–104
effect of cost scale on estimated WTPs 108–12
flaws in 107–8, 140–41
frequency of CV studies passing scope test 128–9
Ojea and Loureiro 98, 105–9
review of scope results reported in 113–24
scope sensitivity in 83, 87, 96–8, 107–8, 112, 123, 126
summary of state of 112–13
on use amenities 107

regressions examining factors affecting 139–40
rejection of hypothesis 91, 97
“warm glow” as explanation for 86
for wolves 83
scope tests
and adding-up test study
adding-up test extending 62
cost 66
examining estimated WTP increases 58–9, 63
issue of adequate response 59, 66, 78
non-negative scope effects 63
restoration program
discussion 78
results 73–4
of river and lake 69–70
and CV estimates of WTP for non-use environmental goods
diminishing marginal utility 83–5, 88–9, 112, 129–31
inconsistent statistical significance results 127–9
pass and fail results affected by measurable survey characteristics 137–40
reliability of CVM 86–90
scope effects 84, 88, 91, 98, 108, 112–13, 123, 128
scope elasticities 112, 129–37, 141
scope insensitivity 83–6, 91, 97, 126, 139–40
scope tests
and adding-up test study
adding-up test extending 62
cost 66
examining estimated WTP increases 58–9, 63
issue of adequate response 59, 66, 78
non-negative scope effects 63
restoration program
discussion 78
results 73–4
of river and lake 69–70
and CV estimates of WTP for non-use environmental goods
diminishing marginal utility 83–5, 88–9, 112, 129–31
inconsistent statistical significance results 127–9
pass and fail results affected by measurable survey characteristics 137–40
reliability of CVM 86–90
scope effects 84, 88, 91, 98, 108, 112–13, 123, 128
scope elasticities 112, 129–37, 141
scope insensitivity 83–6, 91, 97, 126, 139–40
scope literature
Carson’s review 91–7, 112–14
DMT’s review 91, 98–104
effect of cost scale on estimated WTPs 108–12
flaws in 107–8, 140–41
frequency of CV studies passing scope test 128–9
Ojea and Loureiro 98, 105–9
review of scope results reported in 113–24
scope sensitivity in 83, 87, 96–8, 107–8, 112, 123, 126
summary of state of 112–13
on use amenities 107
Contingent valuation of environmental goods

scope sensitivity
demonstration of adequate 129–37
in scope literature 83, 87, 96–8, 107–8, 112, 123, 126
study conclusions 140–41
use of external 84, 91–104, 112–15, 123–4, 129
use values 82–3
variations
in analytical models and statistical procedures 126–7
in data included in analysis 124–5
in survey design 125–6
sensitivity analysis 209–13, 242–8
single-focus approach 189–91, 199, 205, 208–9, 211, 213–15
SP see stated preference (SP)
stated preference (SP) evaluation of environmental goods
assessing validity of data using follow-up questions
consistency of questions 253
criteria for 252–3, 266–7
literature review 255–7
methods and results
 cumulative assessment of validity of responses 261–4
descriptive statistics 260–61
regression analysis 264–6
three basic components 259–60
“problematic responses” 253–4
study design and data 257–9
study discussion and conclusions 266–7
survey subject 254
inferences from surveys when costs and benefits are not compared
application of methodology to data 225
estimation 235–8
heuristic decision rules
attentive to environmental costs only 233–4
attentive to environmental improvements only 232–3
environmental improvements ignoring costs and benefits 234
randomizers ignoring costs and benefits 234
status quo only 232
model
alternative to benefit-cost trade-offs 231–4
trade-off respondents 230–31
related literature 226–7
results
estimated population shares of choice rules 238–40
estimated WTP for species status improvement 240–42
sensitivity analysis 242–8
study conclusions 248–9
survey data 228–9
WTP estimate
features determining 224
ideal behavior for validity 224–5
for species status improvement 240–42
methods and applicability
choice-based conjoint study
design 160–79
history of 155–61
importance of 153–4
lessons for 179–80
possible reasons for lack of development 154–5
response to cost prompts
choice experiment method 1–2
cost scale studies 2–5
study conclusion 11–14
survey data 5–11
status quo
in CBC studies 165, 177–8
in marine species preservation study 6–11, 14
in non-use amenities study 3–5
in stated preference inferences study 224, 227–8, 232, 235–40, 243–9
in stated preference validity study 258, 264, 266
steelhead fish population damage case 298
student variable 273–4, 278–81, 283–5
subject training 168–70
“subjective well-being” methods 160
threatened and endangered ("T&E") species marine
choice experiment effects of cost scales on status 11, 14, 207
NOAA survey data 5–11 study conclusions 11–14
stated preference survey estimation 235–8
model 230–34
NOAA survey data 228–9 related literature 226–7 results 238–48
study conclusions 248–9 scope tests 105, 130
total value equivalency method (TVE) 295, 302 trade-offs
in CBC studies 175, 178 criterion in assessment of SP 255
and familiarity 163
in red knot study 35–6
in stated preference inferences study alternatives to benefit-cost trade-offs
attentive to environmental costs only 233–4
attentive to environmental improvements only 232–3
environmental improvements ignoring costs and benefits 234
randomizers ignoring costs and benefits 234
status quo only 232 estimation 235–8
need for heuristics 225
and respondent behavior 224–5
respondents 230–31
results 238–49
between status quo and do-something options 8–11, 14
Train, K. see Desvousges, W., Mathews, K. and Train, K. (DMT)
truncated bids
as common practice 18
effect on WTP 27–9
explanation 17 implications 25
intentional 23
as tempting response to fat tails 36
truthfulness 60–61, 69, 78, 161, 163–4, 169, 171, 176, 195
Turnbull, B.W. 17, 43, 50, 53, 109, 196, 219
United States v. Montrose 296–8, 305
use amenities 3, 5, 14, 83, 107
use values applications of SP methods to environmental 179
and brain activity 179
CBC elicitations of 179–80
and contingent valuation 82–3
passive 1, 11, 86, 94, 121
from SP studies 154
utility function 1–2, 8, 11, 107, 155–6, 158, 233–4, 237
valuation of lost use 162, 179
“vignette analysis” 160
voluntary contributions 124, 191
voting question example 25, 51
“warm glow” concept 60, 68, 83–4, 86–7, 89–90, 115, 125, 131, 208, 216, 220
water quality studies annual v. one-time payments 46–7
cost scale study 3–4
measuring yes-response rates 19–21, 23
scope tests Carson 91–8
DMT 98–104
summary 117–24
use of debriefing questions 256
wetland restoration project study see stated preference (SP) assessing validity study
willingness to accept (WTA) 63, 67, 190
willingness to pay (WTP)
in adding-up test
addressing adequate response 59–60
description 62–3
findings 61, 78
Contingent valuation of environmental goods

income effects 64–5, 75–7
in original study 69
in previous studies 59–60
provision mechanism 65
questionnaire versions 71
relation to adding-up condition 59–60
in restoration program 60–61, 69, 71, 74–5
results 74–5
review of past studies 66–8
and willingness to accept (WTA) discrepancy 63
in CBC studies 165
in “composite good” approach
in aggregate for large basket of alternative public goods 190
effect if valuation question delayed 199
effect of propensity to shift votes 204
embodying budget constraint 189
estimates
effect of “wording additions” 216–19
sensitivity to cognitive difficulties 209–13
single-focus v. composite good 208–9
exploration of, using split-sample design 188
impact of budget exercise 214
lower-bound mean 196–7, 200, 203–4, 206–7, 210–11, 213, 218
lowering of statistics 198
respondents expressing value for first environmental good 215–16
and scope failure 207
similarities with average charitable donations 220
v. single-focus survey 190–91
statistics for long and short forms 198
and consumer well-being 178–9, 180
hurdles faced by CBC or CVM elicitation of 179
in hypothetical bias study 271, 276–8
marine species preservation case
impact of fourfold increase in costs 8–11, 13–14, 108, 207
influence of cost scales on 2–5, 14
modeling consumer utility in “money metric” form 177
for non-use amenities 3, 5, 14
in red knot studies
adjusting for hypothetical bias 31–2
belief in bid values 34
effect of bid truncation on 27–8
estimates 18, 28–30
fat tails of yes-response function 24–5, 30
importance of maximum bid selection 28–9
lower-bound mean 27–9, 31–2, 35–6, 50–51, 53, 55
present value (PV WTP) 44–55
problem of negative estimates 17
related literature 22–3
sensitivity
to frequency of payments 43–4, 49, 55–6
of mean, to largest bid 36
results 55
size of mean bids 29
scope tests
and CV estimates of WTP for non-use environmental goods 82–141
effect of cost scale on estimated WTPs 108–12
and increase in environmental benefits 58–9
and prominent concern of CV 58
in stated preference inferences study estimates
features determining 224
fragility of 242–8
ideal behavior for validity 224–5
for maximization of utility 249
for species status improvement 240–42, 248
estimation 235–8
for landscape improvements 227
and trade-off respondents 231
for use amenities 3, 5, 14
Index

wine scent wheel 174
“wording additions” 216–19

yea-saying 30, 36, 253, 255–6
yes-response function
adjusting for hypothetical bias 30–31
fat tails of 17–18, 34–5
many studies with truncated 18–21, 35
pinning down tails of 24–5, 35
results in red knot study 26–7
WTP captured in high-end tail of 36

yes-response rates
bid design for 25

in binary choice models 23
expectations in valid surveys 30
at higher bid prices
effect of high 29
explanation for high 35
to highest bid in referendum-style
CV studies 18–21
in non-parametric estimates by bid amount 27
to question about tax amount 33
relation to fat tails 17
share by bid amount 50, 52
in study of migratory birds 22
in WTP estimates 28