

```

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log: D:iprogslog.log
log type: text
opened on: 13 Feb 2007, 17:49:37

. clear

*** STEP 1. Load the programs in iprogs.do

. quietly do iprogs

*** iprogsdoc is loaded when you "do" iprogs.do. It contains documentation of
*** the programs in iprogs.do

. iprogsdoc

* IPROGS CONTAINS 4 "IMMEDIATE FORM" PROGRAMS FOR
* CALCULATING FIELLER'S METHOD CONFIDENCE INTERVALS
* FOR COST-EFFECTIVENESS RATIOS (FIELLERI), AN
* ACCEPTABILITY CURVE (ACCEPTI), NMB CURVES (NMBI)
* AND BOUNDARIES BETWEEN PATTERNS 1, 2, AND 3
* RESULTS (CIBOUNDI)

* PARAMETER VALUES MAY BE DERIVED FROM ANY NUMBER
* OF ESTIMATION METHODS, BUT THESE PROGRAMS ARE
* PARTICULARLY USEFUL IF ONE HAS USED MULTIVARIABLE
* REGRESSION TO ESTIMATE POINT ESTIMATES AND SES.

* WHILE THESE PROGRAMS INCLUDE A PROGRAM FOR THE
* DERIVATION OF THE NECESSARY PARAMETERS BY USE OF
* T-TESTS (IPINPUTS), IF T-TESTS ARE SUFFICIENT,
* CONSIDER USING UPROGS.DO, WHICH CONDUCTS THE
* T-TESTS AS WELL AS ASSESSES SAMPLING UNCERTAINTY

* Glick, last revised 11/18/05

* PROGRAM: IPINPUTS

* USES T-TESTS TO CALCULATE INPUTS USED WITH
* CIBOUNDI, FIELLERI, ACCEPTI, AND NMBI

* Calculated inputs include:
* Difference in cost and SE
* Difference in effect and SE
* Correlation of difference in cost and effect

* COMMAND LINE: ipinputs [COST] [EFFECT] [GROUP] [if]

* The 3 arguments are all names of variables
** `1' Name of cost variable
** `2' Name of effect variable
** `3' Name of 0/1 treatment variable

* Saved Results

* r(meanc)
* r(sec)
* r(meanq)
* r(seq)
* r(rho)

```

```

* r(dof)

* PROGRAM:  CIBOUNDI

* DEFINES T-STATISTICS AND CI THAT FORM
* BOUNDARIES BETWEEN PATTERNS 1, 2, AND 3

*   COMMAND LINE:  ciboundi [COST] [SEcost] [EFFECT] [SEeffect] [CORR] [DOF]

** The 6 arguments are all numbers
** `1' difference in costs
** `2' SE diff costs
** `3' difference in effects
** `4' SE diff effects
** `5' correlation of differences
** `6' degrees of freedom

Alternative command lines (e.g., for automated calculation):
    ipinputs [cost] [effect] [group] [,if]
    local a=r(meanc)
    local b=r(sec)
    local c=r(meanq)
    local d=r(seq)
    local e=r(rho)
    local f=r(dof)
    ciboundi `a' `b' `c' `d' `e' `f'

* Saved Results
* r(tscore1_2)
* r(cil_2)
* r(fll1_2)
* r(full_2)
* r(tscore2_3)
* r(lastCI)
* r(fl2_3)

* PROGRAM:  FIELLERI

* CALCULATES FIELLER INTERVALS
* Reports the specified interval as well as the last
* defined interval; if the specified interval isn't
* defined, reports the limit of the last defined
* interval

*   COMMAND LINE:  fielleri [COST] [SEcost] [EFFECT] [SEeffect] [CORR] [DOF]
[CI]

* The 7 arguments are all numbers
** `1' difference in costs
** `2' SE diff costs
** `3' difference in effects
** `4' SE diff effects
** `5' correlation of differences
** `6' degrees of freedom
** `7' confidence interval, as decimal (e.g., 0.95 for a 95% interval)

Alternative command lines (e.g., for automated calculation):
    ipinputs [cost] [effect] [group] [,if]
    local a=r(meanc)

```

```
local b=r(sec)
local c=r(meanq)
local d=r(seq)
local e=r(rho)
local f=r(dof)
fielleri `a' `b' `c' `d' `e' `f' [CI]
```

* Saved Results

```
* r(R)
* r(CI)
* r(fll)
* r(ful)
* r(lastCI)
```

* PROGRAM: ACCEPTI

* CALCULATES CEILING RATIOS (Rc), % ACCEPTABLE, and P-VALUE

* COMMAND LINE: accepti [COST] [SEcost] [EFFECT] [SEeffect] [CORR] [DO
> F]

```
** The 6 arguments are all numbers
** `1' difference in costs
** `2' SE diff costs
** `3' difference in effects
** `4' SE diff effects
** `5' correlation of differences
** `6' degrees of freedom
```

Alternative command lines (e.g., for automated calculation):

```
ipinputs [cost] [effect] [group] [,if]
local a=r(meanc)
local b=r(sec)
local c=r(meanq)
local d=r(seq)
local e=r(rho)
local f=r(dof)
accepti `a' `b' `c' `d' `e' `f'
```

* Saved Results

```
* r(accmat)
```

* PROGRAM: NMBI

* CALCULATES NMB, CI, AND P-VALUE FOR VARYING

* CEILING RATIOS

* COMMAND LINE: nmbi [COST] [SEcost] [EFFECT] [SEeffect] [CORR] [DOF]
> [CI]

* The 7 arguments are all numbers

```
** `1' difference in costs
** `2' SE diff costs
** `3' difference in effects
** `4' SE diff effects
** `5' correlation of differences
** `6' degrees of freedom
** `1' confidence interval, as decimal (e.g., 0.95 for a 95% interval)
```

Alternative command lines (e.g., for automated calculation):

```
ipininputs [cost] [effect] [group] [,if]
local a=r(meanc)
local b=r(sec)
local c=r(meanq)
local d=r(seq)
local e=r(rho)
local f=r(dof)
nmbi `a' `b' `c' `d' `e' `f' [CI]
```

```
* Saved Results
* r(CI)
* r(nmbmat)
```

*** STEP 2. Load the data you wish to analyze. In the first example, we load
*** the c8exper1 dataset

```
. use c8exper1
```

```
. sum
```

Variable	Obs	Mean	Std. Dev.	Min	Max
id	500	250.5	144.4818	1	500
treat	500	.5	.5005008	0	1
cost	500	9500	3664.302	1402	22082
qaly	500	1.065	.0220753	.9984848	1.114543

*** STEP 3. Use ipininputs to estimates the inputs needed to run the programs

```
. ipininputs cost qaly treat
```

Summary Statistics

```
Difference in cost:          1000
SE, difference in cost:      324.99927
Difference in effect:        .01000001
SE, difference in effect:    .00192499
Correlation of differences:  -.71000917
Degrees of freedom:         498
```

*** ipininputs saves its results in a set or rclass registers

```
. return list
```

scalars:

```
r(meanc) = 1000
r(sec) = 324.999273
r(meanq) = .01
r(seq) = .001925
r(rho) = -.710009
r(dof) = 498
```

*** One means of automating the analysis is to store the saved results in
*** local variables, and use them to run the programs.

```
. local meanc=r(meanc)
```

```
. local sec=r(sec)
```

```
. local meanq=r(meanq)
. local seq=r(seq)
. local rho=r(rho)
. local dof=r(dof)
```

```
*** STEP 4. Run fielleri
```

```
. fielleri `meanc' `sec' `meanq' `seq' `rho' `dof' 0.95
```

Cost-Effectiveness Analysis

```
Point Estimate:          100000
Quadrant:              NE
```

Fieller 95 % Confidence Interval

```
Lower limit :          28184
Upper limit:          245218
```

```
*** ALTERNATE SYNTAX
```

```
*** fielleri 1000 324.999273 .01 .001925 -.710009 498 0.95
```

```
*** STEP 5. Use ciboundi to define the boundaries between the 3 patterns of
*** results for experiment c8exper1
```

```
. ciboundi `meanc' `sec' `meanq' `seq' `rho' `dof'
```

T-scores and CI that define boundaries
between patterns 1, 2, and 3

Pattern 1/2 boundary

```
T-score for 1/2 boundary:      5.1948052
Boundary 1/2 CI:              99.99997 %
Approximate limits at boundary
  Lower limit:                -42100
  Upper limit:                4.397e+17
```

Pattern 2/3 boundary

```
T-score for last definable CI:  7.5772897
Last definable CI:              100 %
Upper and lower limits, last
  defineable CI:              -314863
```

```
*** STEP 6. Calculate NMB and its CI
```

```
. nmbi `meanc' `sec' `meanq' `seq' `rho' `dof' 0.95
```

WTP (Rc), NMB, CI, and P-Values

```
95 %          95 %
```

Rc	NMB	Lower limit	Upper limit	P-value
-42079	-1421	-1958	-883	0.0000
-28588	-1286	-1853	-719	0.0000
-25652	-1257	-1830	-683	0.0000
-23852	-1239	-1817	-661	0.0000
-22537	-1225	-1806	-644	0.0000
-21495	-1215	-1799	-631	0.0001
-20629	-1206	-1792	-621	0.0001
-19886	-1199	-1786	-611	0.0001
-19234	-1192	-1781	-603	0.0001
-18653	-1187	-1777	-596	0.0001
-14557	-1146	-1746	-545	0.0002
-10732	-1107	-1718	-497	0.0004
-8368	-1084	-1700	-467	0.0006
-6627	-1066	-1687	-445	0.0008
-5237	-1052	-1677	-428	0.0010
-4075	-1041	-1668	-413	0.0012
-3073	-1031	-1661	-400	0.0014
-2189	-1022	-1655	-389	0.0016
-1397	-1014	-1649	-379	0.0018
-679	-1007	-1644	-370	0.0020
4306	-957	-1607	-307	0.0040
7458	-925	-1584	-267	0.0060
9817	-902	-1567	-236	0.0080
11724	-883	-1554	-212	0.0100
13338	-867	-1542	-191	0.0120
14744	-853	-1532	-173	0.0140
15994	-840	-1523	-157	0.0160
17124	-829	-1515	-143	0.0180
18156	-818	-1507	-129	0.0200
19109	-809	-1501	-117	0.0220
26111	-739	-1451	-27	0.0420
28184	-718	-1436	-0	0.0500
30872	-691	-1417	35	0.0620
34606	-654	-1391	83	0.0820
37740	-623	-1369	124	0.1020
40476	-595	-1350	160	0.1220
42928	-571	-1333	192	0.1420
45166	-548	-1318	221	0.1620
47237	-528	-1303	248	0.1820
49174	-508	-1290	273	0.2020
51002	-490	-1277	297	0.2220
57374	-426	-1233	381	0.3000
64436	-356	-1185	474	0.4000
70803	-292	-1142	558	0.5000
76787	-232	-1101	637	0.6000
82576	-174	-1062	714	0.7000
88302	-117	-1024	790	0.8000
94076	-59	-985	866	0.9000
99984	-0	-945	945	0.9997
106181	62	-904	1028	0.9000
112747	127	-861	1116	0.8000
119860	199	-813	1211	0.7000
127746	277	-761	1316	0.6000
136748	367	-702	1437	0.5000
147438	474	-632	1581	0.4000
160895	609	-544	1762	0.3000
174790	748	-454	1950	0.2220
179134	791	-426	2008	0.2020

179592	796	-423	2015	0.2000
183933	839	-395	2073	0.1820
189298	893	-360	2146	0.1620
195390	954	-320	2228	0.1420
202443	1024	-275	2324	0.1220
210825	1108	-221	2437	0.1020
211757	1118	-215	2450	0.1000
221160	1212	-154	2578	0.0820
234635	1346	-68	2761	0.0620
245218	1452	-0	2904	0.0500
253954	1540	56	3023	0.0420
287829	1878	272	3484	0.0220
293048	1930	305	3556	0.0200
298892	1989	343	3635	0.0180
305523	2055	385	3726	0.0160
313172	2132	433	3830	0.0140
322185	2222	491	3953	0.0120
333110	2331	560	4102	0.0100
346903	2469	647	4291	0.0080
365427	2654	765	4544	0.0060
393120	2931	940	4923	0.0040
445518	3455	1270	5640	0.0020
454128	3541	1324	5758	0.0018
463972	3640	1386	5893	0.0016
475438	3754	1458	6050	0.0014
489091	3891	1544	6238	0.0012
505840	4058	1650	6467	0.0010
527317	4273	1784	6762	0.0008
556729	4567	1969	7165	0.0006
601909	5019	2252	7786	0.0004
691380	5914	2813	9015	0.0002
819768	7198	3616	10780	0.0001
841451	7415	3751	11078	0.0001
867408	7674	3913	11435	0.0001
898933	7989	4110	11869	0.0001
938572	8386	4357	12414	0.0001
990939	8909	4684	13135	0.0000
1065609	9656	5150	14162	0.0000
1187359	10874	5909	15838	0.0000
1456387	13564	7585	19542	0.0000
32550536	324505	200941	448070	0.0000

*** STEP 7. Calculate the points defining the acceptability curve

. accepti `meanc' `sec' `meanq' `seq' `rho' `dof'

WTP (Rc), % Acceptable, and P-Value

Rc	% Accept	P-value
-42079	0.00000	0.0000
-28588	0.00001	0.0000
-25652	0.00001	0.0000
-23852	0.00002	0.0000
-22537	0.00002	0.0000
-21495	0.00003	0.0001
-20629	0.00003	0.0001
-19886	0.00004	0.0001
-19234	0.00004	0.0001
-18653	0.00005	0.0001

-14557	0.00010	0.0002
-10732	0.00020	0.0004
-8368	0.00030	0.0006
-6627	0.00040	0.0008
-5237	0.00050	0.0010
-4075	0.00060	0.0012
-3073	0.00070	0.0014
-2189	0.00080	0.0016
-1397	0.00090	0.0018
-679	0.00100	0.0020
4306	0.00200	0.0040
7458	0.00300	0.0060
9817	0.00400	0.0080
11724	0.00500	0.0100
13338	0.00600	0.0120
14744	0.00700	0.0140
15994	0.00800	0.0160
17124	0.00900	0.0180
18156	0.01000	0.0200
19109	0.01100	0.0220
26111	0.02100	0.0420
28184	0.02500	0.0500
30872	0.03100	0.0620
34606	0.04100	0.0820
37740	0.05100	0.1020
40476	0.06100	0.1220
42928	0.07100	0.1420
45166	0.08100	0.1620
47237	0.09100	0.1820
49174	0.10100	0.2020
51002	0.11100	0.2220
57374	0.15000	0.3000
64436	0.20000	0.4000
70803	0.25000	0.5000
76787	0.30000	0.6000
82576	0.35000	0.7000
88302	0.40000	0.8000
94076	0.45000	0.9000
99984	0.49987	0.9997
106181	0.55000	0.9000
112747	0.60000	0.8000
119860	0.65000	0.7000
127746	0.70000	0.6000
136748	0.75000	0.5000
147438	0.80000	0.4000
160895	0.85000	0.3000
174790	0.88900	0.2220
179134	0.89900	0.2020
179592	0.90000	0.2000
183933	0.90900	0.1820
189298	0.91900	0.1620
195390	0.92900	0.1420
202443	0.93900	0.1220
210825	0.94900	0.1020
211757	0.95000	0.1000
221160	0.95900	0.0820
234635	0.96900	0.0620
245218	0.97500	0.0500
253954	0.97900	0.0420
287829	0.98900	0.0220
293048	0.99000	0.0200


```

298892      0.99100      0.0180
305523      0.99200      0.0160
313172      0.99300      0.0140
322185      0.99400      0.0120
333110      0.99500      0.0100
346903      0.99600      0.0080
365427      0.99700      0.0060
393120      0.99800      0.0040
445518      0.99900      0.0020
454128      0.99910      0.0018
463972      0.99920      0.0016
475438      0.99930      0.0014
489091      0.99940      0.0012
505840      0.99950      0.0010
527317      0.99960      0.0008
556729      0.99970      0.0006
601909      0.99980      0.0004
691380      0.99990      0.0002
819768      0.99995      0.0001
841451      0.99996      0.0001
867408      0.99996      0.0001
898933      0.99997      0.0001
938572      0.99997      0.0001
990939      0.99998      0.0000
1065609     0.99998      0.0000
1187359     0.99999      0.0000
1456387     0.99999      0.0000
32550536    1.00000      0.0000

```

*** Repeat these steps for experiment c8exper2

```
. use c8exper2
```

```
. sum
```

Variable	Obs	Mean	Std. Dev.	Min	Max
id	500	250.5	144.4818	1	500
treat	500	.5	.5005008	0	1
cost	500	19307.5	8684.017	125.02	52665.01
qaly	500	1.1672	.2509883	.27965	1.801082

```
. ipinputs cost qaly treat
```

Summary Statistics

```

Difference in cost:          34.999568
SE, difference in cost:     777.49999
Difference in effect:       .03999994
SE, difference in effect:   .0224
Correlation of differences: .70600382
Degrees of freedom:        498

```

```
. local meanc=r(meanc)
```

```
. local sec=r(sec)
```

```

. local meanq=r(meanq)
. local seq=r(seq)
. local rho=r(rho)
. local dof=r(dof)
. fielleri `meanc' `sec' `meanq' `seq' `rho' `dof' 0.95

```

Cost-Effectiveness Analysis

```

Point Estimate:          875
Quadrant:              NE

```

Fieller 95 % Confidence Interval

```

Lower limit :          245234
Upper limit:          28230

```

```

. ciboundi `meanc' `sec' `meanq' `seq' `rho' `dof'

```

T-scores and CI that define boundaries
between patterns 1, 2, and 3

Pattern 1/2 boundary

```

T-score for 1/2 boundary:      1.7857143
Boundary 1/2 CI:              92.524609 %
Approximate limits at boundary
  Lower limit:                -7.562e+17
  Upper limit:                 25508

```

Pattern 2/3 boundary

```

T-score for last definable CI:  2.4769887
Last definable CI:              98.641949 %
Upper and lower limits, last
  defineable CI:                50077

```

```

. nmbi `meanc' `sec' `meanq' `seq' `rho' `dof' 0.95

```

WTP (Rc), NMB, CI, and P-Values

Rc	NMB	95 % Lower limit	95 % Upper limit	P-value
-10620581	-424858	-893351	43635	0.0754
-6870955	-274873	-578345	28599	0.0758
-3448057	-137957	-290789	14875	0.0768
-2307028	-92316	-194933	10301	0.0778
-1736414	-69492	-146997	8014	0.0788
-1393983	-55794	-118232	6643	0.0798
-1165640	-46661	-99050	5729	0.0808
-1002494	-40135	-85346	5077	0.0818

-880095	-35239	-75065	4587	0.0828
-784863	-31430	-67066	4207	0.0838
-354112	-14199	-30898	2499	0.0954
-188489	-7575	-17011	1862	0.1154
-130887	-5270	-12194	1653	0.1354
-101131	-4080	-9714	1554	0.1554
-82723	-3344	-8185	1498	0.1754
-70079	-2838	-7139	1463	0.1954
-60778	-2466	-6372	1440	0.2154
-53599	-2179	-5783	1425	0.2354
-36337	-1488	-4376	1399	0.3117
-24396	-1011	-3420	1398	0.4100
-17006	-715	-2838	1408	0.5084
-11764	-506	-2434	1423	0.6067
-7722	-344	-2128	1440	0.7050
-4421	-212	-1882	1459	0.8034
-1607	-99	-1678	1479	0.9017
875	0	-1501	1501	1.0000
3130	90	-1343	1524	0.9017
5233	174	-1200	1549	0.8034
7246	255	-1067	1577	0.7050
9224	334	-940	1608	0.6067
11230	414	-815	1644	0.5084
13341	499	-690	1687	0.4100
15685	592	-557	1742	0.3117
17822	678	-443	1799	0.2354
18459	703	-411	1817	0.2154
18525	706	-407	1819	0.2134
19142	731	-377	1838	0.1954
19882	760	-341	1861	0.1754
20696	793	-302	1888	0.1554
21605	829	-260	1919	0.1354
22647	871	-214	1956	0.1154
22666	872	-213	1957	0.1151
23882	920	-162	2002	0.0954
24729	954	-128	2036	0.0838
24808	957	-125	2039	0.0827
24887	960	-121	2042	0.0818
24968	964	-118	2046	0.0808
25050	967	-115	2049	0.0797
25132	970	-112	2052	0.0788
25216	974	-109	2056	0.0778
25302	977	-105	2059	0.0768
25388	981	-102	2063	0.0758
25419	982	-101	2064	0.0754
25476	984	-99	2067	0.0748
25565	988	-95	2070	0.0738
25655	991	-92	2074	0.0728
25747	995	-88	2078	0.0718
25841	999	-85	2082	0.0708
25936	1002	-81	2086	0.0697
26032	1006	-78	2090	0.0688
26130	1010	-74	2094	0.0678
26230	1014	-70	2099	0.0668
26331	1018	-67	2103	0.0658
27504	1065	-25	2155	0.0554
28230	1094	0	2188	0.0500
30872	1200	82	2317	0.0354
31360	1219	96	2343	0.0334
31896	1241	111	2371	0.0314
32492	1265	127	2402	0.0294

33162	1291	145	2438	0.0274
33928	1322	164	2481	0.0254
34821	1358	185	2531	0.0234
35891	1401	208	2593	0.0214
37230	1454	236	2672	0.0194
39021	1526	269	2782	0.0174
41781	1636	314	2959	0.0154
42165	1652	320	2984	0.0152
42583	1668	325	3011	0.0150
43044	1687	332	3042	0.0148
43558	1707	339	3076	0.0146
44143	1731	346	3115	0.0144
44828	1758	354	3162	0.0142
45668	1792	364	3219	0.0140
46801	1837	376	3298	0.0138
49052	1927	398	3456	0.0136
51147	2011	416	3606	0.0136
53855	2119	434	3804	0.0138
55448	2183	444	3922	0.0140
56750	2235	451	4019	0.0142
57897	2281	456	4106	0.0144
58946	2323	461	4185	0.0146
59925	2362	465	4259	0.0148
60853	2399	468	4330	0.0150
61740	2435	471	4398	0.0152
62594	2469	474	4464	0.0154
70156	2771	489	5053	0.0174
76965	3044	494	5593	0.0194
83582	3308	492	6124	0.0214
90241	3575	486	6663	0.0234
97083	3848	476	7221	0.0254
104215	4134	463	7805	0.0274
111735	4434	446	8423	0.0294
119740	4755	426	9083	0.0314
128333	5098	403	9794	0.0334
137630	5470	375	10565	0.0354
245234	9774	-0	19549	0.0500
323821	12918	-299	26135	0.0554
733065	29288	-1915	60490	0.0658
828344	33099	-2295	68492	0.0668
950780	37996	-2784	78776	0.0678
1113962	44523	-3436	92483	0.0688
1342332	53658	-4350	111666	0.0698
1684788	67357	-5721	140434	0.0708
2255416	90182	-8007	188370	0.0718
3396495	135825	-12581	284231	0.0728
6819377	272740	-26305	571785	0.0738

. accepti `meanc' `sec' `meanq' `seq' `rho' `dof'

WTP (Rc), % Acceptable, and P-Value

Rc	% Accept	P-value
-10620581	0.03770	0.0754
-6870955	0.03788	0.0758
-3448057	0.03838	0.0768
-2307028	0.03888	0.0778
-1736414	0.03938	0.0788
-1393983	0.03988	0.0798

-1165640	0.04038	0.0808
-1002494	0.04088	0.0818
-880095	0.04138	0.0828
-784863	0.04188	0.0838
-354112	0.04770	0.0954
-188489	0.05770	0.1154
-130887	0.06770	0.1354
-101131	0.07770	0.1554
-82723	0.08770	0.1754
-70079	0.09770	0.1954
-60778	0.10770	0.2154
-53599	0.11770	0.2354
-36337	0.15586	0.3117
-24396	0.20502	0.4100
-17006	0.25418	0.5084
-11764	0.30335	0.6067
-7722	0.35252	0.7050
-4421	0.40168	0.8034
-1607	0.45085	0.9017
875	0.50000	1.0000
3130	0.54916	0.9017
5233	0.59832	0.8034
7246	0.64749	0.7050
9224	0.69664	0.6067
11230	0.74582	0.5084
13341	0.79498	0.4100
15685	0.84414	0.3117
17822	0.88229	0.2354
18459	0.89229	0.2154
18525	0.89329	0.2134
19142	0.90230	0.1954
19882	0.91229	0.1754
20696	0.92230	0.1554
21605	0.93230	0.1354
22647	0.94230	0.1154
22666	0.94247	0.1151
23882	0.95230	0.0954
24729	0.95812	0.0838
24808	0.95863	0.0827
24887	0.95912	0.0818
24968	0.95962	0.0808
25050	0.96013	0.0797
25132	0.96062	0.0788
25216	0.96112	0.0778
25302	0.96162	0.0768
25388	0.96212	0.0758
25419	0.96230	0.0754
25476	0.96262	0.0748
25565	0.96312	0.0738
25655	0.96362	0.0728
25747	0.96412	0.0718
25841	0.96462	0.0708
25936	0.96513	0.0697
26032	0.96562	0.0688
26130	0.96612	0.0678
26230	0.96662	0.0668
26331	0.96712	0.0658
27504	0.97230	0.0554
28230	0.97500	0.0500
30872	0.98230	0.0354
31360	0.98330	0.0334

31896	0.98430	0.0314
32492	0.98530	0.0294
33162	0.98630	0.0274
33928	0.98730	0.0254
34821	0.98830	0.0234
35891	0.98930	0.0214
37230	0.99030	0.0194
39021	0.99130	0.0174
41781	0.99230	0.0154
42165	0.99240	0.0152
42583	0.99250	0.0150
43044	0.99260	0.0148
43558	0.99270	0.0146
44143	0.99280	0.0144
44828	0.99290	0.0142
45668	0.99300	0.0140
46801	0.99310	0.0138
49052	0.99320	0.0136
51147	0.99320	0.0136
53855	0.99310	0.0138
55448	0.99300	0.0140
56750	0.99290	0.0142
57897	0.99280	0.0144
58946	0.99270	0.0146
59925	0.99260	0.0148
60853	0.99250	0.0150
61740	0.99240	0.0152
62594	0.99230	0.0154
70156	0.99130	0.0174
76965	0.99030	0.0194
83582	0.98930	0.0214
90241	0.98830	0.0234
97083	0.98730	0.0254
104215	0.98630	0.0274
111735	0.98530	0.0294
119740	0.98430	0.0314
128333	0.98330	0.0334
137630	0.98230	0.0354
245234	0.97500	0.0500
323821	0.97230	0.0554
733065	0.96712	0.0658
828344	0.96662	0.0668
950780	0.96612	0.0678
1113962	0.96562	0.0688
1342332	0.96512	0.0698
1684788	0.96462	0.0708
2255416	0.96412	0.0718
3396495	0.96362	0.0728
6819377	0.96312	0.0738

*** Repeat these steps for experiment c8exper3

. use c8exper3

. sum

Variable	Obs	Mean	Std. Dev.	Min	Max
id	500	250.5	144.4818	1	500
treat	500	.5	.5005008	0	1

cost		500	17810	3635.484	9127.039	32910.05
qaly		500	1.1	.2236068	.207287	1.738353

. ipinputs cost qaly treat

Summary Statistics

Difference in cost:	400
SE, difference in cost:	325.00002
Difference in effect:	.01999999
SE, difference in effect:	.02
Correlation of differences:	.24999735
Degrees of freedom:	498

. local meanc=r(meanc)

. local sec=r(sec)

. local meanq=r(meanq)

. local seq=r(seq)

. local rho=r(rho)

. local dof=r(dof)

. fielleri `meanc' `sec' `meanq' `seq' `rho' `dof' 0.95

Cost-Effectiveness Analysis

Point Estimate:	20000
Quadrant:	NE

NOTE: The Fieller 95 % confidence interval could not be defined

The widest definable interval equals:

Last definable CI:	84.475079 %
Upper and lower limits, last defineable CI:	-11471

. ciboundi `meanc' `sec' `meanq' `seq' `rho' `dof'

T-scores and CI that define boundaries between patterns 1, 2, and 3

Pattern 1/2 boundary

T-score for 1/2 boundary:	1
Boundary 1/2 CI:	68.220385 %
Approximate limits at boundary	
Lower limit:	4263
Upper limit:	1.275e+17

Pattern 2/3 boundary

T-score for last definable CI: 1.4233903
Last definable CI: 84.475079 %
Upper and lower limits, last
defineable CI: -11471

. nmbi `meanc' `sec' `meanq' `seq' `rho' `dof' 0.95

WTP (Rc), NMB, CI, and P-Values

Rc	NMB	95 % Lower limit	95 % Upper limit	P-value
-9658593	-193572	-573264	186121	0.3170
-750383	-15408	-45060	14245	0.3078
-364782	-7696	-22202	6811	0.2978
-350004	-7400	-21327	6527	0.2970
-235999	-5120	-14573	4333	0.2878
-171402	-3828	-10751	3094	0.2778
-167611	-3752	-10526	3022	0.2770
-132464	-3049	-8450	2351	0.2678
-118397	-2768	-7620	2084	0.2629
-106339	-2527	-6909	1855	0.2578
-104621	-2492	-6808	1823	0.2570
-87518	-2150	-5802	1501	0.2478
-73242	-1865	-4965	1235	0.2378
-72250	-1845	-4907	1217	0.2370
-61974	-1639	-4307	1028	0.2278
-52122	-1442	-3735	850	0.2170
-37921	-1158	-2920	603	0.1970
-26631	-933	-2288	423	0.1770
-25570	-911	-2230	407	0.1750
-24509	-890	-2172	392	0.1730
-23443	-869	-2114	376	0.1710
-22366	-847	-2056	361	0.1690
-21269	-825	-1997	346	0.1670
-20142	-803	-1937	332	0.1650
-18966	-779	-1875	317	0.1630
-17711	-754	-1810	301	0.1610
-16318	-726	-1738	285	0.1590
-14624	-692	-1652	267	0.1570
-14421	-688	-1642	265	0.1568
-14207	-684	-1632	263	0.1566
-13979	-680	-1620	261	0.1564
-13734	-675	-1608	259	0.1562
-13466	-669	-1595	256	0.1560
-13164	-663	-1580	253	0.1558
-12807	-656	-1563	250	0.1556
-12334	-647	-1540	246	0.1554
-10652	-613	-1460	233	0.1554
-10239	-605	-1440	231	0.1556
-9942	-599	-1427	229	0.1558
-9700	-594	-1415	227	0.1560
-9492	-590	-1406	226	0.1562
-9307	-586	-1397	225	0.1564
-9140	-583	-1390	224	0.1566
-8986	-580	-1383	223	0.1568

-8843	-577	-1376	223	0.1570
-7765	-555	-1329	218	0.1590
-7002	-540	-1296	216	0.1610
-6394	-528	-1270	214	0.1630
-5880	-518	-1249	214	0.1650
-5432	-509	-1231	213	0.1670
-5033	-501	-1215	213	0.1690
-4672	-493	-1201	214	0.1710
-4340	-487	-1188	214	0.1730
-4034	-481	-1176	215	0.1750
-3749	-475	-1165	215	0.1770
-1605	-432	-1089	225	0.1970
-126	-403	-1042	237	0.2170
527	-389	-1023	244	0.2278
1029	-379	-1009	250	0.2370
1070	-379	-1008	251	0.2378
1567	-369	-995	257	0.2478
1991	-360	-984	263	0.2570
2026	-359	-983	264	0.2578
2454	-351	-972	271	0.2678
2824	-344	-964	277	0.2770
2855	-343	-963	277	0.2778
3234	-335	-954	284	0.2878
3566	-329	-947	290	0.2970
3594	-328	-947	290	0.2978
3937	-321	-940	297	0.3078
4239	-315	-934	303	0.3170
4580	-308	-927	310	0.3278
4860	-303	-922	316	0.3370
4883	-302	-921	317	0.3378
5177	-296	-916	323	0.3478
5439	-291	-912	329	0.3570
5461	-291	-911	330	0.3578
5737	-285	-907	336	0.3678
5984	-280	-903	343	0.3770
6005	-280	-903	343	0.3778
6267	-275	-899	350	0.3878
6523	-270	-895	356	0.3978
6773	-265	-892	363	0.4078
7712	-246	-880	389	0.4471
9727	-205	-863	452	0.5393
11621	-168	-853	518	0.6314
13506	-130	-851	591	0.7236
15468	-91	-854	673	0.8157
17597	-48	-864	767	0.9079
19997	-0	-880	880	0.9999
22837	57	-906	1019	0.9078
26364	127	-945	1200	0.8157
31058	221	-1007	1449	0.7236
37922	358	-1109	1826	0.6314
49594	592	-1301	2485	0.5393
76090	1122	-1775	4019	0.4471
102987	1660	-2276	5596	0.4078
113922	1878	-2483	6239	0.3978
127921	2158	-2748	7065	0.3878
146515	2530	-3101	8162	0.3778
148262	2565	-3135	8265	0.3770
172455	3049	-3597	9695	0.3678
211247	3825	-4340	11990	0.3578
215181	3904	-4415	12222	0.3570
225801	4116	-4619	12851	0.3550

275733	5115	-5578	15808	0.3478
404438	7689	-8056	23434	0.3378
420434	8009	-8364	24382	0.3370
789988	15400	-15489	46289	0.3278

. accepti `meanc' `sec' `meanq' `seq' `rho' `dof'

WTP (Rc), % Acceptable, and P-Value

Rc	% Accept	P-value
-9658593	0.15850	0.3170
-750383	0.15390	0.3078
-364782	0.14890	0.2978
-350004	0.14850	0.2970
-235999	0.14390	0.2878
-171402	0.13890	0.2778
-167611	0.13850	0.2770
-132464	0.13390	0.2678
-118397	0.13143	0.2629
-106339	0.12890	0.2578
-104621	0.12850	0.2570
-87518	0.12390	0.2478
-73242	0.11890	0.2378
-72250	0.11850	0.2370
-61974	0.11390	0.2278
-52122	0.10850	0.2170
-37921	0.09850	0.1970
-26631	0.08850	0.1770
-25570	0.08750	0.1750
-24509	0.08650	0.1730
-23443	0.08550	0.1710
-22366	0.08450	0.1690
-21269	0.08350	0.1670
-20142	0.08250	0.1650
-18966	0.08150	0.1630
-17711	0.08050	0.1610
-16318	0.07950	0.1590
-14624	0.07850	0.1570
-14421	0.07840	0.1568
-14207	0.07830	0.1566
-13979	0.07820	0.1564
-13734	0.07810	0.1562
-13466	0.07800	0.1560
-13164	0.07790	0.1558
-12807	0.07780	0.1556
-12334	0.07770	0.1554
-10652	0.07770	0.1554
-10239	0.07780	0.1556
-9942	0.07790	0.1558
-9700	0.07800	0.1560
-9492	0.07810	0.1562
-9307	0.07820	0.1564
-9140	0.07830	0.1566
-8986	0.07840	0.1568
-8843	0.07850	0.1570
-7765	0.07950	0.1590
-7002	0.08050	0.1610
-6394	0.08150	0.1630

-5880	0.08250	0.1650
-5432	0.08350	0.1670
-5033	0.08450	0.1690
-4672	0.08550	0.1710
-4340	0.08650	0.1730
-4034	0.08750	0.1750
-3749	0.08850	0.1770
-1605	0.09850	0.1970
-126	0.10850	0.2170
527	0.11390	0.2278
1029	0.11850	0.2370
1070	0.11890	0.2378
1567	0.12390	0.2478
1991	0.12850	0.2570
2026	0.12890	0.2578
2454	0.13390	0.2678
2824	0.13850	0.2770
2855	0.13890	0.2778
3234	0.14390	0.2878
3566	0.14850	0.2970
3594	0.14890	0.2978
3937	0.15390	0.3078
4239	0.15850	0.3170
4580	0.16390	0.3278
4860	0.16851	0.3370
4883	0.16889	0.3378
5177	0.17390	0.3478
5439	0.17851	0.3570
5461	0.17890	0.3578
5737	0.18390	0.3678
5984	0.18850	0.3770
6005	0.18889	0.3778
6267	0.19390	0.3878
6523	0.19891	0.3978
6773	0.20390	0.4078
7712	0.22357	0.4471
9727	0.26964	0.5393
11621	0.31571	0.6314
13506	0.36179	0.7236
15468	0.40785	0.8157
17597	0.45394	0.9079
19997	0.49995	0.9999
22837	0.54608	0.9078
26364	0.59214	0.8157
31058	0.63822	0.7236
37922	0.68428	0.6314
49594	0.73036	0.5393
76090	0.77643	0.4471
102987	0.79610	0.4078
113922	0.80110	0.3978
127921	0.80610	0.3878
146515	0.81110	0.3778
148262	0.81150	0.3770
172455	0.81610	0.3678
211247	0.82110	0.3578
215181	0.82150	0.3570
225801	0.82250	0.3550
275733	0.82610	0.3478
404438	0.83110	0.3378
420434	0.83150	0.3370
789988	0.83610	0.3278

```
. log close
  log: D:iprogslog.log
  log type: text
  closed on: 13 Feb 2007, 17:59:22
```
