

Social Status and Peer-Punishment: Findings from Two Road Traffic Field Experiments

Documentation of Data Analysis

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1 Setup

Required SSC packages: `fre`, `estout`, `estwrite`, `coefplot`, `addplot`.

```
. about
Stata/MP 14.2 for Mac (64-bit Intel)
Revision 07 Mar 2017
Copyright 1985-2015 StataCorp LLC
Total physical memory:    8.01 GB
30-user 2-core Stata network perpetual license:
  Serial number: 501406208640
  Licensed to: Ben Jann
                University of Bern

. version 14.2
. clear all
. set linesize 80
. set type double
```

2 Data preparation

2.1 Experiment of 1995

Import data from raw text file.

```
. insheet using honk-1995.dat, clear
(7 vars, 123 obs)
```

Identification number.

```
. rename fbnr id
. lab var id "Case ID"
. fre id, t(5)
id — Case ID
```

		Freq.	Percent	Valid	Cum.
Valid	1	1	0.81	0.81	0.81
	2	1	0.81	0.81	1.63
	3	1	0.81	0.81	2.44
	4	1	0.81	0.81	3.25
	5	1	0.81	0.81	4.07
	:	:	:	:	:
	120	1	0.81	0.81	96.75
	121	1	0.81	0.81	97.56
	122	1	0.81	0.81	98.37
	123	1	0.81	0.81	99.19
	124	1	0.81	0.81	100.00
	Total	123	100.00	100.00	

Status of frustrator (blocking car).

```
. lab var frust "Status of frustrator"
. lab def frust 0 "low" 1 "high"
. lab val frust frust
. fre frust
```

frust — Status of frustrator

		Freq.	Percent	Valid	Cum.
Valid	0 low	62	50.41	50.41	50.41
	1 high	61	49.59	49.59	100.00
	Total	123	100.00	100.00	

Variables on aggressor (blocked car).

```
. lab var aggr "Status of aggressor"
. lab def aggr 0 "low" 1 "mid" 2 "high"
. lab val aggr aggr
. fre aggr
```

aggr — Status of aggressor

		Freq.	Percent	Valid	Cum.
Valid	0 low	31	25.20	25.20	25.20
	1 mid	68	55.28	55.28	80.49
	2 high	24	19.51	19.51	100.00
	Total	123	100.00	100.00	

```
. rename sex female
. lab var female "Sex of aggressor"
. lab def female 0 "male" 1 "female"
. lab val female female
. fre female
```

female — Sex of aggressor

		Freq.	Percent	Valid	Cum.
Valid	0 male	94	76.42	76.42	76.42
	1 female	29	23.58	23.58	100.00
	Total	123	100.00	100.00	

```
. lab var age "Estimated age of aggressor"
. lab def age 0 "age 18-30" 1 "age 31-40" 2 "age 41-55" 3 "age 55+"
. lab val age age
. fre age
```

age — Estimated age of aggressor

		Freq.	Percent	Valid	Cum.
--	--	-------	---------	-------	------

Valid	0 age 18-30	17	13.82	13.82	13.82
	1 age 31-40	32	26.02	26.02	39.84
	2 age 41-55	48	39.02	39.02	78.86
	3 age 55+	26	21.14	21.14	100.00
	Total	123	100.00	100.00	

Outcome variables (horn honking).

```
. rename status response
. lab var response "Horn-honking response within 12 seconds"
. lab def response 0 "no (censored)" 1 "yes"
. lab val response response
. fre response
```

response — Horn-honking response within 12 seconds

		Freq.	Percent	Valid	Cum.
Valid	0 no (censored)	26	21.14	21.14	21.14
	1 yes	97	78.86	78.86	100.00
	Total	123	100.00	100.00	

```
. replace time = time / 10
variable time was int now float
(123 real changes made)
```

```
. lab var time "Horn-honking response time (in seconds)"
. fre time, t(5)
```

time — Horn-honking response time (in seconds)

		Freq.	Percent	Valid	Cum.
Valid	2	1	0.81	0.81	0.81
	2.2	1	0.81	0.81	1.63
	2.6	1	0.81	0.81	2.44
	2.9	2	1.63	1.63	4.07
	3	1	0.81	0.81	4.88
	:	:	:	:	:
	10.6	1	0.81	0.81	74.80
	10.9	1	0.81	0.81	75.61
	11	2	1.63	1.63	77.24
	11.2	1	0.81	0.81	78.05
	12	27	21.95	21.95	100.00
	Total	123	100.00	100.00	

Tidy up and save data.

```
. order id frust aggr female age response time
. compress
(0 bytes saved)
. describe
Contains data
obs:      123
vars:      7
```

size: 1,353

variable name	storage type	display format	value label	variable label
id	int	%8.0g		Case ID
frust	byte	%8.0g	frust	Status of frustrator
aggr	byte	%8.0g	aggr	Status of aggressor
female	byte	%8.0g	female	Sex of aggressor
age	byte	%9.0g	age	Estimated age of aggressor
response	byte	%13.0g	response	Horn-honking response within 12 seconds
time	float	%8.0g		Horn-honking response time (in seconds)

Sorted by:

Note: Dataset has changed since last saved.

. summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
id	123	62.21138	35.94218	1	124
frust	123	.495935	.5020284	0	1
aggr	123	.9430894	.668995	0	2
female	123	.2357724	.4262167	0	1
age	123	1.674797	.9623736	0	3
response	123	.7886179	.4099587	0	1
time	123	7.373171	3.24424	2	12

. saveold honk-1995.dta, version(11) replace
(saving in Stata 12 format, which Stata 11 can read)
file honk-1995.dta saved

2.2 Experiment of 2005

Import data from Excel file.

```
. import excel honk-2005, firstrow clear  
. drop o1model o2sex2 v1 v2
```

Identification number.

```
. lab var id "Case ID"  
. fre id, t(5)  
id — Case ID
```

		Freq.	Percent	Valid	Cum.
Valid	001	1	0.76	0.76	0.76
	002	1	0.76	0.76	1.53
	003	1	0.76	0.76	2.29
	004	1	0.76	0.76	3.05
	005	1	0.76	0.76	3.82
	:	:	:	:	:
	44a	1	0.76	0.76	96.95

44b	1	0.76	0.76	97.71
44c	1	0.76	0.76	98.47
44d	1	0.76	0.76	99.24
44e	1	0.76	0.76	100.00
Total	131	100.00	100.00	

Information on experimenters.

```
. local x fname o1name o2name v2name
. foreach v in id_driver id_o1 id_o2 id_camera {
2.   gettoken v0 x : x
3.   qui gen byte `v' = .
4.   local i 0
5.   foreach n in Heiko Jörg H  l  ne Lis Jelena {
6.     local ++i
7.     qui replace `v' = `i' if `v0'=="`n'"
8.   }
9. }
. drop fname o1name o2name v2name
. lab var id_driver "ID of driver"
. lab var id_o1 "ID of observer 1"
. lab var id_o2 "ID of observer 2"
. lab var id_camera "ID of person at camera"
. fre id_driver id_o1 id_o2 id_camera
id_driver    ID of driver
```

		Freq.	Percent	Valid	Cum.
Valid	1	36	27.48	27.48	27.48
	2	25	19.08	19.08	46.56
	3	45	34.35	34.35	80.92
	4	25	19.08	19.08	100.00
	Total	131	100.00	100.00	

id_o1    ID of observer 1

		Freq.	Percent	Valid	Cum.
Valid	1	14	10.69	10.69	10.69
	2	6	4.58	4.58	15.27
	3	86	65.65	65.65	80.92
	4	25	19.08	19.08	100.00
	Total	131	100.00	100.00	

id_o2    ID of observer 2

		Freq.	Percent	Valid	Cum.
Valid	1	25	19.08	19.08	19.08
	2	35	26.72	26.72	45.80
	4	28	21.37	21.37	67.18
	5	43	32.82	32.82	100.00
	Total	131	100.00	100.00	

id_camera — ID of person at camera

		Freq.	Percent	Valid	Cum.
Valid	1	35	26.72	26.72	26.72
	2	71	54.20	54.20	80.92
	4	25	19.08	19.08	100.00
	Total	131	100.00	100.00	

Time of day when trial took place.

```
. // Observer 1
. rename o1time TMP
. gen o1time = real(substr(TMP,1,2))*60+real(substr(TMP,4,2))
(2 missing values generated)
. *gen t1 = floor(o1time/60)
. *gen t2 = o1time - t1*60
. *browse TMP t1 t2
. lab var o1time "Time of day (observer 1)"
. su o1time
```

Variable	Obs	Mean	Std. Dev.	Min	Max
o1time	129	859.4884	140.5475	636	1061

```
. drop TMP
. // Observer 2
. rename o2time TMP
. gen o2time = real(substr(TMP,1,2))*60+real(substr(TMP,4,2))
. *gen t1 = floor(o2time/60)
. *gen t2 = o2time - t1*60
. *browse TMP t1 t2
. lab var o2time "Time of day (observer 2)"
. su o2time
```

Variable	Obs	Mean	Std. Dev.	Min	Max
o2time	131	858.1985	139.836	638	1062

```
. drop TMP
. gen time = (o1time + o2time) / 2
(2 missing values generated)
. replace time = o1time if time>=. & o1time<.
(0 real changes made)
. replace time = o2time if time>=. & o2time<.
(2 real changes made)
. lab var time "Time of day"
. su time
```

Variable	Obs	Mean	Std. Dev.	Min	Max
time	131	858.1298	139.8871	637	1061.5

Variables on frustrator (blocking car).

```
. // Status
```

```

. rename fstatus TMP
. gen byte fstatus = 0 if TMP=="low"
(61 missing values generated)
. replace fstatus = 1 if TMP=="high"
(61 real changes made)
. lab var fstatus "Status of blocking car"
. lab def fstatus 0 "low (VW Golf 1800 1995)" 1 "high (BMW 530i 2005)"
. lab val fstatus fstatus
. fre fstatus
fstatus — Status of blocking car

```

		Freq.	Percent	Valid	Cum.
Valid	0 low (VW Golf 1800 1995)	70	53.44	53.44	53.44
	1 high (BMW 530i 2005)	61	46.56	46.56	100.00
	Total	131	100.00	100.00	

```

. drop TMP
. // Sex
. gen byte ffemale = 0 if fsex=="m"
(70 missing values generated)
. replace ffemale = 1 if fsex=="w"
(70 real changes made)
. lab var ffemale "Sex of driver in blocking car"
. lab def ffemale 0 "male" 1 "female"
. lab val ffemale ffemale
. fre ffemale
ffemale — Sex of driver in blocking car

```

		Freq.	Percent	Valid	Cum.
Valid	0 male	61	46.56	46.56	46.56
	1 female	70	53.44	53.44	100.00
	Total	131	100.00	100.00	

```

. drop fsex

```

Variables on blocked vehicles and horn honking.

```

. // Number of blocked vehicles (observer 1)
. rename o1nveh nblocked
. replace nblocked = . if nblocked== -9
(4 real changes made, 4 to missing)
. lab var nblocked "Number of blocked vehicles"
. fre nblocked
nblocked — Number of blocked vehicles

```

		Freq.	Percent	Valid	Cum.
Valid	1	66	50.38	51.97	51.97
	2	38	29.01	29.92	81.89

3	15	11.45	11.81	93.70
4	7	5.34	5.51	99.21
6	1	0.76	0.79	100.00
Total	127	96.95	100.00	
Missing .	4	3.05		
Total	131	100.00		

```

. // Position of vehicle that honked (observer 1)
. rename olhonk poshonk

. replace poshonk = . if poshonk==--9
(10 real changes made, 10 to missing)

. lab var poshonk "Position of honking vehicle (1 = foremost) "
. fre poshonk

poshonk — Position of honking vehicle (1 = foremost)

```

		Freq.	Percent	Valid	Cum.
Valid	1	110	83.97	90.91	90.91
	2	9	6.87	7.44	98.35
	4	2	1.53	1.65	100.00
	Total	121	92.37	100.00	
Missing .		10	7.63		
Total		131	100.00		

```

. // Time until horn is honked (coded from video)
. replace honktime = . if honktime==--9
(18 real changes made, 18 to missing)

. lab var honktime "Time until horn is honked (from video)"
. fre honktime, t(5)

honktime — Time until horn is honked (from video)

```

		Freq.	Percent	Valid	Cum.
Valid	3.15	1	0.76	0.88	0.88
	3.4	1	0.76	0.88	1.77
	3.72	1	0.76	0.88	2.65
	3.75	1	0.76	0.88	3.54
	3.9	1	0.76	0.88	4.42
	:	:	:	:	:
	39.04	1	0.76	0.88	96.46
	39.97	1	0.76	0.88	97.35
	42.32	1	0.76	0.88	98.23
	43.36	1	0.76	0.88	99.12
	60.41	1	0.76	0.88	100.00
	Total	113	86.26	100.00	
Missing .		18	13.74		
Total		131	100.00		

```

. // Time until horn is honked (original field measurement)
. rename honktime0 TMP

. generate honktime0 = real(substr(TMP,1,1))*60 + real(substr(TMP,3,2))
(14 missing values generated)

. lab var honktime0 "Time until horn is honked (field measurement)"
. fre honktime0, t(5)

```

honktime0 — Time until horn is honked (field measurement)

		Freq.	Percent	Valid	Cum.
Valid	2	1	0.76	0.85	0.85
	3	3	2.29	2.56	3.42
	4	4	3.05	3.42	6.84
	5	10	7.63	8.55	15.38
	6	12	9.16	10.26	25.64
	:	:	:	:	:
	37	1	0.76	0.85	96.58
	38	1	0.76	0.85	97.44
	39	1	0.76	0.85	98.29
	45	1	0.76	0.85	99.15
	60	1	0.76	0.85	100.00
	Total	117	89.31	100.00	
Missing	.	14	10.69		
Total		131	100.00		

. drop TMP

Variables on aggressor (foremost blocked vehicle).

```
. // Status (observer 1)
. gen byte status = 1 if trim(o1status)=="L"
(110 missing values generated)
. replace status = 2 if trim(o1status)=="L-M"
(21 real changes made)
. replace status = 3 if trim(o1status)=="M"
(48 real changes made)
. replace status = 4 if trim(o1status)=="M-H"
(17 real changes made)
. replace status = 5 if trim(o1status)=="H"
(12 real changes made)
. replace status = 9 if trim(o1status)=="LW"
(9 real changes made)
. list o1status if status>=.
```

o1status	
47.	-9
49.	-9
92.	-9

```
. lab var status "Status of blocked vehicle"
. lab def status 1 "low" 2 "low to mid" 3 "mid" 4 "mid to high" 5 "high" ///
> 9 "delivery-van"
. lab val status status
. fre status
```

status — Status of blocked vehicle

		Freq.	Percent	Valid	Cum.
Valid	1 low	21	16.03	16.41	16.41

2 low to mid	21	16.03	16.41	32.81
3 mid	48	36.64	37.50	70.31
4 mid to high	17	12.98	13.28	83.59
5 high	12	9.16	9.38	92.97
9 delivery-van	9	6.87	7.03	100.00
Total	128	97.71	100.00	
Missing .	3	2.29		
Total	131	100.00		

```
. drop o1status
. // Estimated age of vehicle (observer 1)
. rename o1age vehicleage
. replace vehicleage = . if vehicleage==9
(5 real changes made, 5 to missing)
. lab var vehicleage "Estimated age of blocked vehicle"
. fre vehicleage
vehicleage — Estimated age of blocked vehicle
```

		Freq.	Percent	Valid	Cum.
Valid	0	49	37.40	38.89	38.89
	1	2	1.53	1.59	40.48
	2	4	3.05	3.17	43.65
	3	2	1.53	1.59	45.24
	4	3	2.29	2.38	47.62
	5	6	4.58	4.76	52.38
	6	1	0.76	0.79	53.17
	7	1	0.76	0.79	53.97
	8	3	2.29	2.38	56.35
	10	44	33.59	34.92	91.27
	15	4	3.05	3.17	94.44
	20	7	5.34	5.56	100.00
	Total	126	96.18	100.00	
Missing .		5	3.82		
Total		131	100.00		

```
. // Sex of driver (observer 2)
. gen byte female = 0 if o2sex=="m"
(42 missing values generated)
. replace female = 1 if o2sex=="w"
(42 real changes made)
. lab var female "Sex of driver of blocked vehicle"
. lab def female 0 "male" 1 "female"
. lab val female female
. fre female
female — Sex of driver of blocked vehicle
```

		Freq.	Percent	Valid	Cum.
Valid	0 male	89	67.94	67.94	67.94
	1 female	42	32.06	32.06	100.00
	Total	131	100.00	100.00	

```
. drop o2sex
```

```

. // Number of people in vehicle (observer 2)
. rename o2np passengers
. lab var passengers "Number of passengers in blocked vehicle"
. fre passengers
passengers — Number of passengers in blocked vehicle

```

		Freq.	Percent	Valid	Cum.
Valid	1	105	80.15	80.15	80.15
	2	16	12.21	12.21	92.37
	3	6	4.58	4.58	96.95
	4	4	3.05	3.05	100.00
	Total	131	100.00	100.00	

```

. // Estimated age of driver (observer 2)
. rename o2age age
. lab var age "Estimated age of driver of blocked vehicle"
. fre age
age — Estimated age of driver of blocked vehicle

```

		Freq.	Percent	Valid	Cum.
Valid	20	15	11.45	11.45	11.45
	21	1	0.76	0.76	12.21
	22	1	0.76	0.76	12.98
	25	3	2.29	2.29	15.27
	26	1	0.76	0.76	16.03
	30	31	23.66	23.66	39.69
	31	1	0.76	0.76	40.46
	33	1	0.76	0.76	41.22
	35	6	4.58	4.58	45.80
	37	1	0.76	0.76	46.56
	38	2	1.53	1.53	48.09
	40	18	13.74	13.74	61.83
	42	2	1.53	1.53	63.36
	43	1	0.76	0.76	64.12
	45	4	3.05	3.05	67.18
	46	1	0.76	0.76	67.94
	48	2	1.53	1.53	69.47
	50	16	12.21	12.21	81.68
	52	2	1.53	1.53	83.21
	55	5	3.82	3.82	87.02
	60	7	5.34	5.34	92.37
	63	1	0.76	0.76	93.13
	65	3	2.29	2.29	95.42
	68	1	0.76	0.76	96.18
	70	3	2.29	2.29	98.47
	78	1	0.76	0.76	99.24
	80	1	0.76	0.76	100.00
	Total	131	100.00	100.00	

```

. // Status of driver (observer 2)
. gen byte dstatus = 1 if trim(o2status)=="B1"
(121 missing values generated)
. replace dstatus = 2 if trim(o2status)=="B2"
(15 real changes made)

```

```

. replace dstatus = 3 if trim(o2status)=="B3"
(5 real changes made)

. replace dstatus = 4 if trim(o2status)=="F1"
(14 real changes made)

. replace dstatus = 5 if trim(o2status)=="F1-F2"
(1 real change made)

. replace dstatus = 6 if trim(o2status)=="F2"
(73 real changes made)

. replace dstatus = 7 if trim(o2status)=="F3"
(13 real changes made)

. lab var dstatus "Status of driver of blocked vehicle"

. lab def dstatus 1 "low (bussiness)" 2 "mid (bussiness)" ///
> 3 "high (bussiness)" 4 "low (casual)" 5 "low to mid (casual)" ///
> 6 "mid (casual)" 7 "high (casual)"

. lab val dstatus dstatus

. fre dstatus

dstatus — Status of driver of blocked vehicle

```

		Freq.	Percent	Valid	Cum.
Valid	1 low (bussiness)	10	7.63	7.63	7.63
	2 mid (bussiness)	15	11.45	11.45	19.08
	3 high (bussiness)	5	3.82	3.82	22.90
	4 low (casual)	14	10.69	10.69	33.59
	5 low to mid (casual)	1	0.76	0.76	34.35
	6 mid (casual)	73	55.73	55.73	90.08
	7 high (casual)	13	9.92	9.92	100.00
	Total	131	100.00	100.00	

```

. drop o2status

. // Type of vehicle (coded from video)
. rename cartype vehicletype

. replace vehicletype = . if vehicletype== -9
(3 real changes made, 3 to missing)

. lab var vehicletype "Type of blocked vehicle"

. lab def vehicletype 0 "private" 1 "business" 2 "taxi" 3 "military" ///
> 4 "motorcycle"

. lab val vehicletype vehicletype

. fre vehicletype

vehicletype — Type of blocked vehicle

```

		Freq.	Percent	Valid	Cum.
Valid	0 private	111	84.73	86.72	86.72
	1 business	12	9.16	9.38	96.09
	2 taxi	3	2.29	2.34	98.44
	3 military	1	0.76	0.78	99.22
	4 motorcycle	1	0.76	0.78	100.00
	Total	128	97.71	100.00	
Missing	.	3	2.29		
Total		131	100.00		

```

. // Color of vehicle (coded from video)
. lab var color "Color of blocked vehicle"

. fre color

color — Color of blocked vehicle

```

		Freq.	Percent	Valid	Cum.
Valid	blau	10	7.63	7.81	7.81
	dunkelblau	9	6.87	7.03	14.84
	dunkelgrau	3	2.29	2.34	17.19
	dunkelgrün	17	12.98	13.28	30.47
	dunkelgrün	1	0.76	0.78	31.25
	gelb	1	0.76	0.78	32.03
	grau	10	7.63	7.81	39.84
	grün	8	6.11	6.25	46.09
	hellblau	3	2.29	2.34	48.44
	hellgrau	12	9.16	9.38	57.81
	knallgrün	1	0.76	0.78	58.59
	rot	16	12.21	12.50	71.09
	schwarz	8	6.11	6.25	77.34
	silber	13	9.92	10.16	87.50
	violett	1	0.76	0.78	88.28
	weiss	15	11.45	11.72	100.00
	Total	128	97.71	100.00	
Missing		3	2.29		
Total		131	100.00		

```

. // Vehicle has open window(s) (coded from video)
. replace window = . if window== -9
(3 real changes made, 3 to missing)

. lab var window "Blocked vehicle has open window(s)"

. lab def window 0 "no" 1 "yes" 2 "convertible"

. lab val window window

. fre window

window — Blocked vehicle has open window(s)

```

		Freq.	Percent	Valid	Cum.
Valid	0 no	53	40.46	41.41	41.41
	1 yes	69	52.67	53.91	95.31
	2 convertible	6	4.58	4.69	100.00
	Total	128	97.71	100.00	
Missing	.	3	2.29		
Total		131	100.00		

```

. // Driver of talks on phone (coded from video)
. replace phone = . if phone== -9
(3 real changes made, 3 to missing)

. lab var phone "Driver of blocked vehicle talks on the phone"

. lab def phone 0 "no" 1 "yes"

. lab val phone phone

. fre phone

phone — Driver of blocked vehicle talks on the phone

```

		Freq.	Percent	Valid	Cum.
Valid	0 no	125	95.42	97.66	97.66
	1 yes	3	2.29	2.34	100.00
	Total	128	97.71	100.00	
Missing	.	3	2.29		
Total		131	100.00		

```

. // Vehicle flashes lights (coded from video)
. replace light = . if light== -9
(21 real changes made, 21 to missing)
. lab var light "Blocked vehicle flashes lights"
. lab def light 0 "no" 1 "yes"
. lab val light light
. fre light
light — Blocked vehicle flashes lights

```

		Freq.	Percent	Valid	Cum.
Valid	0 no	91	69.47	82.73	82.73
	1 yes	19	14.50	17.27	100.00
	Total	110	83.97	100.00	
Missing	.	21	16.03		
Total		131	100.00		

```

. // Time until lights are flashed (coded from video)
. replace lighttime = . if lighttime== -9
(111 real changes made, 111 to missing)
. lab var lighttime "Time until lights are flashed"
. fre lighttime // on case has valid time although light==0
lighttime — Time until lights are flashed

```

		Freq.	Percent	Valid	Cum.
Valid	1.44	1	0.76	5.00	5.00
	1.87	1	0.76	5.00	10.00
	2.26	1	0.76	5.00	15.00
	3.68	1	0.76	5.00	20.00
	3.76	1	0.76	5.00	25.00
	5.36	1	0.76	5.00	30.00
	5.76	1	0.76	5.00	35.00
	6.32	1	0.76	5.00	40.00
	7.2	1	0.76	5.00	45.00
	8.18	1	0.76	5.00	50.00
	8.48	1	0.76	5.00	55.00
	9.02	1	0.76	5.00	60.00
	9.13	1	0.76	5.00	65.00
	9.26	1	0.76	5.00	70.00
	9.35	1	0.76	5.00	75.00
	10.5	1	0.76	5.00	80.00
	11.5	1	0.76	5.00	85.00
	14.88	1	0.76	5.00	90.00
	15.04	1	0.76	5.00	95.00
	20.9	1	0.76	5.00	100.00
	Total	20	15.27	100.00	
Missing	.	111	84.73		

Total | 131 100.00

```
. // Direction from which vehicle enters street (coded from video)
. replace direction = . if direction== -9
(5 real changes made, 5 to missing)

. lab var direction "Direction from which vehicle enters the street"
. lab def direction 0 "left" 1 "right" 2 "from parking field"
. lab val direction direction
. fre direction
direction — Direction from which vehicle enters the street
```

		Freq.	Percent	Valid	Cum.
Valid	0 left	27	20.61	21.43	21.43
	1 right	96	73.28	76.19	97.62
	2 from parking field	3	2.29	2.38	100.00
	Total	126	96.18	100.00	
Missing	.	5	3.82		
Total		131	100.00		

```
. // Make and model (coded from video stills by expert)
. lab var model "Make and model of blocked vehicle"
. fre model, t(5)
model — Make and model of blocked vehicle
```

		Freq.	Percent	Valid	Cum.
Valid	Alfa Romeo 147	2	1.53	1.56	1.56
	Alfa Romeo GT	1	0.76	0.78	2.34
	Audi A3	1	0.76	0.78	3.12
	Audi A4	2	1.53	1.56	4.69
	Audi A6	1	0.76	0.78	5.47
	:	:	:	:	:
	VW Passat GT	1	0.76	0.78	95.31
	VW Polo	2	1.53	1.56	96.88
	Volvo V40	1	0.76	0.78	97.66
	Volvo V70	2	1.53	1.56	99.22
	Vw Golf II	1	0.76	0.78	100.00
	Total	128	97.71	100.00	
Missing		3	2.29		
Total		131	100.00		

```
. // Approximate production (coded from video stills by expert)
. replace year = . if year== -9
(3 real changes made, 3 to missing)

. lab var year "Approximate production year of blocked vehicle"
. fre year
year — Approximate production year of blocked vehicle
```

		Freq.	Percent	Valid	Cum.
Valid	1982	1	0.76	0.79	0.79
	1987	1	0.76	0.79	1.57
	1988	1	0.76	0.79	2.36

1989	1	0.76	0.79	3.15
1992	2	1.53	1.57	4.72
1994	2	1.53	1.57	6.30
1995	2	1.53	1.57	7.87
1996	1	0.76	0.79	8.66
1997	13	9.92	10.24	18.90
1998	13	9.92	10.24	29.13
1999	11	8.40	8.66	37.80
2000	10	7.63	7.87	45.67
2001	11	8.40	8.66	54.33
2002	18	13.74	14.17	68.50
2003	19	14.50	14.96	83.46
2004	12	9.16	9.45	92.91
2005	8	6.11	6.30	99.21
2006	1	0.76	0.79	100.00
Total	127	96.95	100.00	
Missing .	4	3.05		
Total	131	100.00		

```
. // Approximate selling price (coded from video stills by expert)
. replace price = . if price== -9
(3 real changes made, 3 to missing)

. lab var price "Approximate selling price of blocked vehicle"
. fre price, t(5)

price — Approximate selling price of blocked vehicle
```

		Freq.	Percent	Valid	Cum.
Valid	14000	1	0.76	0.79	0.79
	15000	1	0.76	0.79	1.57
	16000	2	1.53	1.57	3.15
	17000	1	0.76	0.79	3.94
	18000	12	9.16	9.45	13.39
	:	:	:	:	:
	56000	1	0.76	0.79	92.91
	60000	6	4.58	4.72	97.64
	68000	1	0.76	0.79	98.43
	80000	1	0.76	0.79	99.21
	100000	1	0.76	0.79	100.00
	Total	127	96.95	100.00	
Missing .		4	3.05		
Total		131	100.00		

Comments.

```
. // Remarks based on videos
. lab var remarks1 "Comments based on videos"
. fre remarks1, t(5)

remarks1 — Comments based on videos
```

		Freq.	Percent	Valid	Cum.
Valid	2nd vehicle honked shortly before blocked vehicle did	1	0.76	1.67	1.67
	4-türig	14	10.69	23.33	25.00

Avant	2	1.53	3.33	28.33
Break	1	0.76	1.67	30.00
Cabriolet	3	2.29	5.00	35.00
:	:	:	:	:
Touring	2	1.53	3.33	88.33
Tournier	1	0.76	1.67	90.00
Variant	4	3.05	6.67	96.67
mit Brücke(Pritsche)	1	0.76	1.67	98.33
mit Kühlraum	1	0.76	1.67	100.00
Total	60	45.80	100.00	
Missing	71	54.20		
Total	131	100.00		

```
. // Remarks from field notes
. lab var remarks2 "Comments based on field notes"
. fre remarks2, t(5)
remarks2 — Comments based on field notes
```

		Freq.	Percent	Valid	Cum.
Valid	2nd vehicle is motorcycle	1	0.76	2.17	2.17
	2nd vehicle is vespa	1	0.76	2.17	4.35
	3rd vehicle is motorcycle	1	0.76	2.17	6.52
	Achtung: Fehler, 2.Auto parkt aus:m, 35,B2,BMW	1	0.76	2.17	8.70
	Band fertig	2	1.53	4.35	13.04
	:	:	:	:	:
	nicht gehupt, über Randstein überholt	1	0.76	2.17	91.30
	sah ev. Ein wenig nach B2 aus trotz T-Shirt	1	0.76	2.17	93.48
	stimmen die Daten?	1	0.76	2.17	95.65
	telefoniert während Blockierung	1	0.76	2.17	97.83
	zu aggressiv kurz vor aussteigen	1	0.76	2.17	100.00
	Total	46	35.11	100.00	
Missing		85	64.89		
Total		131	100.00		

Merge temperature data.

```
. save honk-2005.dta, replace
file honk-2005.dta saved

. clear

. infix 2 first hour 13-14 min 15-16 tmp 24-27 ///
> using temperature-data-2005/temperature_zh_2005_06_21.txt
(143 observations read)

. gen time = hour * 60 + min

. keep time tmp

. append using honk-2005.dta

. ipolate tmp time, gen(temperature)

. drop tmp

. keep if id!=""
```

```
(143 observations deleted)
. lab var temperature "Temperature (degree celsius)"
```

Merge traffic data.

```
. save honk-2005.dta, replace
file honk-2005.dta saved

. clear

. insheet using traffic-data-2005/traffic_zh_2005_06_21.txt
(3 vars, 120 obs)

. bys zeit: egen traff = sum(anzahl)

. gen time = zeit * 60 + 30

. sort stelle zeit

. keep in 1/24
(96 observations deleted)

. keep time traff

. append using honk-2005.dta

. ipolate traff time, gen(traffic)

. replace traffic = traffic/1000
(155 real changes made)

. drop traff

. keep if id!="
(24 observations deleted)

. lab var traffic "Traffic density (1000 vehicles per hour)"
```

Tidy up and save data.

```
. lab var time "Time of day"

. compress
variable o1time was double now int
variable o2time was double now int
variable honktime0 was double now byte
(2,489 bytes saved)

. order id id_driver id_o1 id_o2 id_camera ///
> o1time o2time time temperature traffic ///
> fstatus ffemale nblocked poshonk honktime honktime0 ///
> status vehicleage female passengers age dstatus vehicletype color ///
> window phone light lighttime direction model year price ///
> remarks1 remarks2

. describe

Contains data
  obs:          131
  vars:           34
  size:         26,855
```

variable name	storage type	display format	value label	variable label
id	str3	%9s		Case ID
id_driver	byte	%8.0g		ID of driver
id_o1	byte	%8.0g		ID of observer 1
id_o2	byte	%8.0g		ID of observer 2

id_camera	byte	%8.0g		ID of person at camera
o1time	int	%10.0g		Time of day (observer 1)
o2time	int	%10.0g		Time of day (observer 2)
time	double	%10.0g		Time of day
temperature	double	%10.0g		Temperature (degree celsius)
traffic	double	%10.0g		Traffic density (1000 vehicles per hour)
fstatus	byte	%23.0g	fstatus	Status of blocking car
ffemale	byte	%8.0g	ffemale	Sex of driver in blocking car
nblocked	byte	%10.0g		Number of blocked vehicles
poshonk	byte	%10.0g		Position of honking vehicle (1 = foremost)
honktime	double	%10.0g		Time until horn is honked (from video)
honktime0	byte	%10.0g		Time until horn is honked (field measurement)
status	byte	%12.0g	status	Status of blocked vehicle
vehicleage	byte	%10.0g		Estimated age of blocked vehicle
female	byte	%8.0g	female	Sex of driver of blocked vehicle
passengers	byte	%10.0g		Number of passengers in blocked vehicle
age	byte	%10.0g		Estimated age of driver of blocked vehicle
dstatus	byte	%19.0g	dstatus	Status of driver of blocked vehicle
vehicletype	byte	%10.0g	vehicletype	Type of blocked vehicle
color	str12	%12s		Color of blocked vehicle
window	byte	%11.0g	window	Blocked vehicle has open window(s)
phone	byte	%10.0g	phone	Driver of blocked vehicle talks on the phone
light	byte	%10.0g	light	Blocked vehicle flashes lights
lighttime	double	%10.0g		Time until lights are flashed
direction	byte	%18.0g	direction	Direction from which vehicle enters the street
model	str20	%20s		Make and model of blocked vehicle
year	int	%10.0g		Approximate production year of blocked vehicle
price	long	%10.0g		Approximate selling price of blocked vehicle
remarks1	str53	%53s		Comments based on videos
remarks2	str47	%47s		Comments based on field notes

Sorted by:

Note: Dataset has changed since last saved.

. summarize

Variable	Obs	Mean	Std. Dev.	Min	Max
id	0				
id_driver	131	2.450382	1.08991	1	4
id_o1	131	2.931298	.815153	1	4
id_o2	131	3.221374	1.589824	1	5
id_camera	131	2.114504	1.012546	1	4
o1time	129	859.4884	140.5475	636	1061
o2time	131	858.1985	139.836	638	1062
time	131	858.1298	139.8871	637	1061.5
temperature	131	28.20328	.9431152	25.87	29.4

traffic	131	11.595	2.194225	9.491	15.4496
fstatus	131	.4656489	.5007335	0	1
ffemale	131	.5343511	.5007335	0	1
nblocked	127	1.740157	.9612541	1	6
poshonk	121	1.123967	.4577162	1	4
honktime	113	13.75018	9.678311	3.15	60.41
honktime0	117	13.15385	9.599403	2	60
status	128	3.25	1.956214	1	9
vehicleage	126	5.833333	5.881156	0	20
female	131	.3206107	.4685029	0	1
passengers	131	1.305344	.7004738	1	4
age	131	39.87023	14.13582	20	80
dstatus	131	4.923664	1.8672	1	7
vehicletype	128	.1953125	.589389	0	4
color	0				
window	128	.6328125	.573305	0	2
phone	128	.0234375	.1518829	0	1
light	110	.1727273	.3797414	0	1
lighttime	20	8.1945	4.881152	1.44	20.9
direction	126	.8095238	.4510306	0	2
model	0				
year	127	2000.205	3.863419	1982	2006
price	127	31228.35	14083.19	14000	100000
remarks1	0				
remarks2	0				

```
. saveold honk-2005.dta, version(11) replace
(saving in Stata 12 format, which Stata 11 can read)
file honk-2005.dta saved
```

3 Data analysis

3.1 Experiment of 1995

Read data and prepare for analysis.

```
. clear all
. use honk-1995
. stset time, failure(response)
      failure event:  response != 0 & response < .
obs. time interval:  (0, time]
exit on or before:  failure
```

```
123 total observations
  0 exclusions
```

```
123 observations remaining, representing
  97 failures in single-record/single-failure data
906.9 total analysis time at risk and under observation
```

```

                                at risk from t =      0
earliest observed entry t =      0
                                last observed exit t =    12

```

Survival function.

```

. stci
      failure _d: response
analysis time _t: time

```

	no. of subjects	50%	Std. Err.	[95% Conf. Interval]	
total	123	6.4	.4264322	5.7	7.6

```

. preserve
. sts generate _s = s _lb = lb(s) _ub = ub(s)
. bysort _t: gen byte _tag = _n==1
. mkmat _s if _tag, mat(b)
. mat b = 1, b'
. mkmat _t if _tag, mat(at)
. mat at = 0, at'
. mkmat _lb _ub if _tag, mat(ci)
. mat ci = (. \ .), ci'
. eret post b
. estadd local cmd "sts"
added macro:
      e(cmd) : "sts"
. estadd matrix at
added matrix:
      e(at) : 1 x 59
. estadd matrix ci
added matrix:
      e(ci) : 2 x 59
. matrix drop at ci
. eststo surv1995
. restore

```

Proportional hazards models.

```

. // status difference
. gen byte diff = aggr - (frust * 2)
. gen byte downward = abs(diff)*(diff>0)
. gen byte upward = abs(diff)*(diff<0)
. gen byte absdiff = abs(diff)
. // controls
. fre female
female — Sex of aggressor

```

	Freq.	Percent	Valid	Cum.
--	-------	---------	-------	------

Valid	0 male	94	76.42	76.42	76.42
	1 female	29	23.58	23.58	100.00
	Total	123	100.00	100.00	

```
. recode age (0 = 1) (1 2 = 2) (3 = 3), gen(cage)
(49 differences between age and cage)
. lab def cage 1 "age 18-30" 2 "age 31-55" 3 "age 55+"
. lab val cage cage
. fre cage
cage — RECODE of age (Estimated age of aggressor)
```

		Freq.	Percent	Valid	Cum.
Valid	1 age 18-30	17	13.82	13.82	13.82
	2 age 31-55	80	65.04	65.04	78.86
	3 age 55+	26	21.14	21.14	100.00
	Total	123	100.00	100.00	

```
. // models
. // - status main effects
. eststo s95main: stcox i.aggr i.frust i.female ib2.cage
```

```
failure _d: response
analysis time _t: time
```

```
Iteration 0: log likelihood = -411.82861
Iteration 1: log likelihood = -406.46006
Iteration 2: log likelihood = -406.41716
Iteration 3: log likelihood = -406.41715
Refining estimates:
Iteration 0: log likelihood = -406.41715
```

Cox regression -- Breslow method for ties

```
No. of subjects = 123 Number of obs = 123
No. of failures = 97
Time at risk = 906.9000006
Log likelihood = -406.41715 LR chi2(6) = 10.82
Prob > chi2 = 0.0940
```

_t	Haz. Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
aggr					
mid	.7872136	.2070795	-0.91	0.363	.4700898 1.31827
high	.6225799	.2137753	-1.38	0.168	.3176274 1.220316
frust					
high	1.22566	.2611598	0.95	0.340	.8072326 1.860979
female					
female	.5588016	.1579809	-2.06	0.040	.3210785 .9725323
cage					
age 18-30	1.299687	.3860799	0.88	0.378	.7260798 2.326448
age 55+	1.54867	.3986581	1.70	0.089	.9350676 2.564927

```
. estat phtest
```

Test of proportional-hazards assumption

Time: Time

	chi2	df	Prob>chi2
global test	5.58	6	0.4715

```
. // - absolute status difference
. stcox i.absdiff i.frust i.female ib2.cage
```

```
    failure _d: response
    analysis time _t: time
```

```
Iteration 0:  log likelihood = -411.82861
Iteration 1:  log likelihood = -405.1349
Iteration 2:  log likelihood = -405.05819
Iteration 3:  log likelihood = -405.05817
Refining estimates:
Iteration 0:  log likelihood = -405.05817
```

Cox regression -- Breslow method for ties

```
No. of subjects =          123          Number of obs   =          123
No. of failures =           97
Time at risk    = 906.9000006
Log likelihood  = -405.05817          LR chi2(6)       =          13.54
                                          Prob > chi2     =          0.0352
```

_t	Haz. Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
absdiff					
1	1.375378	.3826986	1.15	0.252	.7972154 2.372842
2	2.003983	.6466327	2.15	0.031	1.064716 3.77185
frust					
high	1.153725	.2436941	0.68	0.498	.76262 1.745405
female					
female	.6411584	.173264	-1.64	0.100	.3775202 1.088906
cage					
age 18-30	1.455473	.4284313	1.28	0.202	.8174201 2.591569
age 55+	1.708388	.4505783	2.03	0.042	1.018795 2.864748

```
. test 1.absdiff*2=2.absdiff
```

```
( 1) 2*1.absdiff - 2.absdiff = 0
```

```
      chi2( 1) =    0.02
      Prob > chi2 =    0.8930
```

```
. eststo s95absdif: stcox absdiff i.frust i.female ib2.cage
```

```
    failure _d: response
    analysis time _t: time
```

```
Iteration 0:  log likelihood = -411.82861
Iteration 1:  log likelihood = -405.1348
Iteration 2:  log likelihood = -405.06722
Iteration 3:  log likelihood = -405.0672
Refining estimates:
Iteration 0:  log likelihood = -405.0672
```

Cox regression -- Breslow method for ties


```

No. of subjects =          123          Number of obs   =          123
No. of failures =           97
Time at risk   =  906.9000006
Log likelihood =  -405.0672          LR chi2(5)       =          13.52
                                          Prob > chi2     =          0.0189

```

_t	Haz. Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
absdiff	1.418048	.229776	2.16	0.031	1.032203	1.948126
frust high	1.150081	.2414964	0.67	0.505	.7620642	1.735664
female female	.6447672	.1721344	-1.64	0.100	.3820819	1.088051
cage age 18-30	1.449145	.4239579	1.27	0.205	.816745	2.571207
age 55+	1.717413	.4481805	2.07	0.038	1.029776	2.864221

```
. estat phtest
```

```
Test of proportional-hazards assumption
```

```
Time: Time
```

	chi2	df	Prob>chi2
global test	2.45	5	0.7835

```
. // - positive and negative status difference
```

```
. eststo s95dnup: stcox downward upward i.frust i.female ib2.cage
```

```
failure _d: response
analysis time _t: time
```

```
Iteration 0: log likelihood = -411.82861
Iteration 1: log likelihood = -403.94993
Iteration 2: log likelihood = -403.84823
Iteration 3: log likelihood = -403.84819
Refining estimates:
Iteration 0: log likelihood = -403.84819
```

```
Cox regression -- Breslow method for ties
```

```

No. of subjects =          123          Number of obs   =          123
No. of failures =           97
Time at risk   =  906.9000006
Log likelihood =  -403.84819          LR chi2(6)       =          15.96
                                          Prob > chi2     =          0.0140

```

_t	Haz. Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
downward upward	1.109509 1.899622	.2502453 .4748	0.46 2.57	0.645 0.010	.7130919 1.163896	1.726298 3.100418
frust high	.670229	.2719967	-0.99	0.324	.3025402	1.484784
female female	.5525365	.1576724	-2.08	0.038	.3158358	.966631

cage						
age 18-30	1.332328	.395468	0.97	0.334	.7446521	2.383795
age 55+	1.775533	.4667073	2.18	0.029	1.060685	2.972152

```
. lincom downward-upward
( 1) downward - upward = 0
```

_t	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
(1)	-.5377376	.3447002	-1.56	0.119	-1.213338 .1378625

```
. estat phtest
Test of proportional-hazards assumption
```

Time: Time

	chi2	df	Prob>chi2
global test	3.07	6	0.8000

```
. stcurve, survival ///
> at1(downward=0 upward=0 frust=0) ///
> at2(downward=1 upward=0 frust=0) ///
> at3(downward=2 upward=0 frust=0) ///
> at4(downward=0 upward=0 frust=1) ///
> at5(downward=0 upward=1 frust=1) ///
> at6(downward=0 upward=2 frust=1) ///
> outfile(results/surv95, replace) nodraw
```

Descriptives of predictors.

```
. preserve
. gen byte alow = aggr==0
. gen byte amid = aggr==1
. gen byte ahigh = aggr==2
. gen byte cage18 = cage==1
. gen byte cage31 = cage==2
. gen byte cage56 = cage==3
. estpost su frust alow amid ahigh absdiff downward upward female ///
> cage18 cage31 cage56
```

	e(count)	e(sum_w)	e(mean)	e(Var)	e(sd)	e(min)
frust	123	123	.495935	.2520325	.5020284	0
alow	123	123	.2520325	.1900573	.4359556	0
amid	123	123	.5528455	.2492336	.4992331	0
ahigh	123	123	.195122	.1583367	.3979154	0
absdiff	123	123	.9756098	.4502199	.6709843	0
downward	123	123	.4634146	.447421	.6688954	0
upward	123	123	.5121951	.4814074	.6938353	0
female	123	123	.2357724	.1816607	.4262167	0
cage18	123	123	.1382114	.1200853	.3465333	0
cage31	123	123	.6504065	.2292416	.4787919	0
cage56	123	123	.2113821	.1680661	.4099587	0
	e(max)	e(sum)				

frust	1	61
alow	1	31
amid	1	68
ahigh	1	24
absdiff	2	120
downward	2	57
upward	2	63
female	1	29
cage18	1	17
cage31	1	80
cage56	1	26

```

. eststo des95
. restore

```

Store results on disk.

```

. estwrite * using results/1995, replace
(saving surv1995)
(saving s95main)
(saving s95absdif)
(saving s95dnup)
(saving des95)
(file results/1995.sters saved)

```

3.2 Experiment of 2005

Read data and prepare for analysis.

```

. clear all
. use honk-2005
. corr honktime honktime0
(obs=113)

```

	honktime honkti-0	
honktime	1.0000	
honktime0	0.9830	1.0000

```

. gen honk = honktime
(18 missing values generated)
. replace honk = honktime0 if honk>=.
(4 real changes made)

```

```

. su honk

```

Variable	Obs	Mean	Std. Dev.	Min	Max
honk	117	14.03222	9.84883	3.15	60.41

```

. drop if poshonk>=. | honk>=. // exclude invalid/incomplete trials
(15 observations deleted)
. drop if vehicletype==4 // motorcycle (inconsistent data)
(1 observation deleted)
. drop if status==9 // exclude delivery vans
(9 observations deleted)

```

```

. label def fstatus 0 "low" 1 "high", modify
. recode status (1 2 = 0) (3 = 1) (4 5 = 2), gen(aggr)
(106 differences between status and aggr)
. lab def aggr 0 "low" 1 "mid" 2 "high"
. lab val aggr aggr
. fre aggr
aggr — RECODE of status (Status of blocked vehicle)

```

		Freq.	Percent	Valid	Cum.
Valid	0 low	39	36.79	36.79	36.79
	1 mid	41	38.68	38.68	75.47
	2 high	26	24.53	24.53	100.00
	Total	106	100.00	100.00	

```

. stset honk, failure(poshonk==1)
      failure event:  poshonk == 1
obs. time interval:  (0, honk]
exit on or before:  failure

```

```

106 total observations
0 exclusions

```

```

106 observations remaining, representing
96 failures in single-record/single-failure data
1422.87 total analysis time at risk and under observation
              at risk from t =          0
earliest observed entry t =          0
last observed exit t =         43.36

```

Survival function.

```

. stci
      failure _d:  poshonk == 1
analysis time _t:  honk

```

	no. of subjects	50%	Std. Err.	[95% Conf. Interval]	
total	106	11.8	1.290931	9.12	13.8

```

. preserve
. sts generate _s = s _lb = lb(s) _ub = ub(s)
. bysort _t: gen byte _tag = _n==1
. mkmat _s if _tag, mat(b)
. mat b = 1, b'
. mkmat _t if _tag, mat(at)
. mat at = 0, at'
. mkmat _lb _ub if _tag, mat(ci)
. mat ci = (. \ .), ci'
. eret post b
. estadd local cmd "sts"

```

```

added macro:
          e(cmd) : "sts"
. estadd matrix at
added matrix:
          e(at) : 1 x 97
. estadd matrix ci
added matrix:
          e(ci) : 2 x 97
. matrix drop at ci
. eststo surv2005
. restore

```

Proportional hazards models.

```

. // status difference
. gen byte diff      = aggr - (fstatus * 2)
. gen byte downward = abs(diff)*(diff>0)
. gen byte upward   = abs(diff)*(diff<0)
. gen byte absdiff  = abs(diff)
. // price difference
. gen value = price*0.95^(2005-year) // 5% depreciation per year
. gen lnvalue = ln(price*0.95^(2005-year))
. gen lnfvalue = ln(((fstatus==1)*64000+(fstatus==0)*24000*0.95^10))
. gen vdiff = lnvalue - lnfvalue
. /* high = 64k CHF (new), low = 25k CHF (10 years old) */
. gen absvdiff = abs(vdiff)
. gen vdownward = abs(vdiff)*(vdiff>0)
. gen vupward   = abs(vdiff)*(vdiff<0)
. // relation between price and status
. mean value, over(aggr)

```

```

Mean estimation              Number of obs   =           106
      low: aggr = low
      mid: aggr = mid
      high: aggr = high

```

	Over	Mean	Std. Err.	[95% Conf. Interval]	
value					
	low	16497.21	824.7119	14861.95	18132.46
	mid	24971.41	1507.662	21981.99	27960.82
	high	37573.06	3152.712	31321.81	43824.31

```

. // controls
. fre ffemale
ffemale — Sex of driver in blocking car

```

		Freq.	Percent	Valid	Cum.
Valid	0 male	50	47.17	47.17	47.17
	1 female	56	52.83	52.83	100.00

Total	106	100.00	100.00
-------	-----	--------	--------

```
. fre female
female — Sex of driver of blocked vehicle
```

		Freq.	Percent	Valid	Cum.
Valid	0 male	69	65.09	65.09	65.09
	1 female	37	34.91	34.91	100.00
	Total	106	100.00	100.00	

```
. gen cage = 1 if age<=30
(63 missing values generated)
. replace cage = 2 if age>30 & age<=55
(49 real changes made)
. replace cage = 3 if age>55 & age<.
(14 real changes made)
. lab def cage 1 "age 18-30" 2 "age 31-55" 3 "age 55+"
. lab val cage cage
. fre cage
```

		Freq.	Percent	Valid	Cum.
Valid	1 age 18-30	43	40.57	40.57	40.57
	2 age 31-55	49	46.23	46.23	86.79
	3 age 55+	14	13.21	13.21	100.00
	Total	106	100.00	100.00	

```
. gen byte business = vehicletype!=0 if vehicletype<.
. fre business
```

		Freq.	Percent	Valid	Cum.
Valid	0	98	92.45	92.45	92.45
	1	8	7.55	7.55	100.00
	Total	106	100.00	100.00	

```
. su temperature
```

Variable	Obs	Mean	Std. Dev.	Min	Max
temperature	106	28.19311	.9844702	25.87	29.4

```
. su traffic
```

Variable	Obs	Mean	Std. Dev.	Min	Max
traffic	106	11.64167	2.213801	9.491	15.4496

```
. fre direction
```

```
direction — Direction from which vehicle enters the street
```

	Freq.	Percent	Valid	Cum.
--	-------	---------	-------	------

Valid	0 left	25	23.58	23.58	23.58
	1 right	81	76.42	76.42	100.00
	Total	106	100.00	100.00	

```
. // models
. // - status main effects
. eststo s05main: stcox i.aggr i.fstatus i.ffemale i.female ///
>   ib2.cage i.business temperature traffic i.direction
```

```
failure _d: poshonk == 1
analysis time _t: honk
```

```
Iteration 0: log likelihood = -363.56296
Iteration 1: log likelihood = -351.98174
Iteration 2: log likelihood = -351.26746
Iteration 3: log likelihood = -351.26079
Iteration 4: log likelihood = -351.26079
```

Refining estimates:

```
Iteration 0: log likelihood = -351.26079
```

Cox regression -- Breslow method for ties

```
No. of subjects =          106          Number of obs   =          106
No. of failures =           96
Time at risk    =          1422.87
Log likelihood  = -351.26079          LR chi2(11)      =          24.60
                                          Prob > chi2     =          0.0104
```

_t	Haz. Ratio	Std. Err.	z	P> z	[95% Conf. Interval]
aggr					
mid	.7441152	.1900616	-1.16	0.247	.451052 1.227591
high	.5396982	.1633742	-2.04	0.042	.2981813 .9768358
fstatus					
high	1.018993	.2367284	0.08	0.935	.6462842 1.606642
ffemale					
female	.5697637	.1368909	-2.34	0.019	.3557835 .9124387
female					
female	1.401891	.3401879	1.39	0.164	.8712816 2.25564
cage					
age 18-30	.5318145	.1645042	-2.04	0.041	.2900422 .9751227
age 55+	1.345789	.4662561	0.86	0.391	.6824542 2.653875
1.business	1.746185	.7574784	1.29	0.199	.7461857 4.086329
temperature	1.215093	.2032917	1.16	0.244	.8753849 1.686632
traffic	1.137914	.0966353	1.52	0.128	.9634357 1.343991
direction					
right	2.004153	.5598916	2.49	0.013	1.159136 3.465193

```
. estat phtest
```

Test of proportional-hazards assumption

Time: Time

	chi2	df	Prob>chi2

global test | 8.90 11 0.6310

```
. qui stcox i.aggr i.fstatus i.ffemale##i.female ///
>   ib2.cage i.business temperature traffic i.direction
. lincom 1.ffemale#1.female
(1) 1.ffemale#1.female = 0
```

_t	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
(1)	-.6995708	.46518	-1.50	0.133	-1.611307	.2121652

```
. // - absolute status difference
. stcox i.absdiff i.fstatus i.ffemale i.female ///
>   ib2.cage i.business temperature traffic i.direction
```

```
       failure _d:  poshonk == 1
       analysis time _t:  honk

Iteration 0:   log likelihood = -363.56296
Iteration 1:   log likelihood = -350.69225
Iteration 2:   log likelihood = -350.24405
Iteration 3:   log likelihood = -350.24156
Iteration 4:   log likelihood = -350.24156
Refining estimates:
Iteration 0:   log likelihood = -350.24156

Cox regression -- Breslow method for ties

No. of subjects =          106           Number of obs   =          106
No. of failures =           96
Time at risk    =          1422.87

Log likelihood =  -350.24156           LR chi2(11)       =          26.64
                                           Prob > chi2      =          0.0052
```

_t	Haz. Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
absdiff						
1	1.296692	.3320645	1.01	0.310	.7849755	2.14199
2	2.124304	.6343329	2.52	0.012	1.183155	3.814097
fstatus						
high	.8589018	.1956955	-0.67	0.504	.549544	1.342408
ffemale						
female	.5214683	.1223923	-2.77	0.006	.3291887	.8260588
female						
female	1.603225	.3902099	1.94	0.052	.9949931	2.583265
cage						
age 18-30	.4803745	.1464481	-2.40	0.016	.26429	.8731306
age 55+	1.498938	.5086847	1.19	0.233	.770756	2.915079
1.business	2.412168	1.038258	2.05	0.041	1.037597	5.60772
temperature	1.137122	.1871616	0.78	0.435	.8235798	1.570031
traffic	1.083497	.0898682	0.97	0.334	.9209298	1.27476
direction						
right	2.094032	.586755	2.64	0.008	1.209132	3.626544


```

. test 1.absdiff*2=2.absdiff
( 1) 2*1.absdiff - 2.absdiff = 0
      chi2( 1) =    0.27
      Prob > chi2 =    0.6007

. eststo s05absdif: stcox absdiff i.fstatus i.ffemale i.female ///
>   ib2.cage i.business temperature traffic i.direction
      failure _d:  poshonk == 1
      analysis time _t:  honk

Iteration 0:  log likelihood = -363.56296
Iteration 1:  log likelihood = -350.76319
Iteration 2:  log likelihood = -350.38078
Iteration 3:  log likelihood = -350.37925
Iteration 4:  log likelihood = -350.37925
Refining estimates:
Iteration 0:  log likelihood = -350.37925

Cox regression -- Breslow method for ties

No. of subjects =          106                Number of obs   =          106
No. of failures =           96
Time at risk   =        1422.87

LR chi2(10)     =          26.37
Prob > chi2     =          0.0033
Log likelihood  = -350.37925

```

_t	Haz. Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
absdiff	1.446038	.2185982	2.44	0.015	1.075235	1.944716
fstatus high	.8512608	.1939582	-0.71	0.480	.5446506	1.330477
ffemale female	.5169762	.1212358	-2.81	0.005	.3264794	.8186255
female female	1.606846	.3917068	1.95	0.052	.9964918	2.591044
cage age 18-30	.4772805	.1459864	-2.42	0.016	.262069	.869224
age 55+	1.457283	.4878642	1.12	0.261	.7561038	2.808705
1.business temperature	2.377056	1.023878	2.01	0.044	1.021876	5.529434
temperature traffic	1.130748	.1859867	0.75	0.455	.8191423	1.560891
traffic	1.090489	.0898801	1.05	0.293	.9278204	1.281678
direction right	2.103725	.5895559	2.65	0.008	1.214633	3.643619

```

. estat phtest
Test of proportional-hazards assumption
Time: Time

```

	chi2	df	Prob>chi2
global test	10.31	10	0.4138

```
. qui stcox absdiff i.fstatus i.ffemale##i.female ///
>   ib2.cage i.business temperature traffic i.direction
. lincom 1.ffemale#1.female
( 1) 1.ffemale#1.female = 0
```

_t	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
(1)	-.3921216	.4885281	-0.80	0.422	-1.349619	.5653758

```
. // - positive and negative status difference
. eststo s05dnup: stcox downward upward i.fstatus i.ffemale i.female ///
>   ib2.cage i.business temperature traffic i.direction
```

```
failure _d: poshonk == 1
analysis time _t: honk
```

```
Iteration 0: log likelihood = -363.56296
Iteration 1: log likelihood = -348.55013
Iteration 2: log likelihood = -348.07599
Iteration 3: log likelihood = -348.07411
Iteration 4: log likelihood = -348.07411
Refining estimates:
Iteration 0: log likelihood = -348.07411
```

Cox regression -- Breslow method for ties

```
No. of subjects =          106                Number of obs   =          106
No. of failures =           96
Time at risk    =        1422.87
Log likelihood  =   -348.07411                LR chi2(11)       =          30.98
                                                Prob > chi2      =          0.0011
```

_t	Haz. Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
downward	1.073469	.2226491	0.34	0.732	.7148934	1.6119
upward	2.022895	.4500605	3.17	0.002	1.307962	3.128611
fstatus						
high	.4575193	.1720226	-2.08	0.038	.2189608	.9559881
ffemale						
female	.5261116	.1254883	-2.69	0.007	.3296469	.8396664
female						
female	1.503022	.3679923	1.66	0.096	.9301685	2.428674
cage						
age 18-30	.4657414	.1438931	-2.47	0.013	.254192	.8533513
age 55+	1.438487	.4880308	1.07	0.284	.7398122	2.796986
1.business	2.045708	.8911586	1.64	0.100	.8710444	4.804488
temperature	1.238428	.2113304	1.25	0.210	.8863767	1.730307
traffic	1.123324	.0951808	1.37	0.170	.9514398	1.326259
direction						
right	2.14227	.600488	2.72	0.007	1.23674	3.71082

```
. lincom downward-upward
( 1) downward - upward = 0
```

_t	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
(1)	-.633634	.2980548	-2.13	0.034	-1.217811	-.0494573

. estat phtest

Test of proportional-hazards assumption

Time: Time

	chi2	df	Prob>chi2
global test	10.62	11	0.4758

. stcurve, survival ///

```
> at1(downward=0 upward=0 fstatus=0) ///
> at2(downward=1 upward=0 fstatus=0) ///
> at3(downward=2 upward=0 fstatus=0) ///
> at4(downward=0 upward=0 fstatus=1) ///
> at5(downward=0 upward=1 fstatus=1) ///
> at6(downward=0 upward=2 fstatus=1) ///
> range(0 20) outfile(results/surv05, replace) nodraw
```

. qui stcox downward upward i.fstatus i.ffemale##i.female ///

```
> ib2.cage i.business temperature traffic i.direction
```

. lincom 1.ffemale#1.female

(1) 1.ffemale#1.female = 0

_t	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
(1)	-.4789781	.4804402	-1.00	0.319	-1.420623	.4626673

. // - value main effects

. eststo v05main: stcox lnvalue i.fstatus i.ffemale i.female ///

```
> ib2.cage i.business temperature traffic i.direction
```

```
failure _d: poshonk == 1
analysis time _t: honk
```

```
Iteration 0: log likelihood = -363.56296
Iteration 1: log likelihood = -353.83503
Iteration 2: log likelihood = -353.3783
Iteration 3: log likelihood = -353.37634
Iteration 4: log likelihood = -353.37634
```

Refining estimates:

```
Iteration 0: log likelihood = -353.37634
```

Cox regression -- Breslow method for ties

```
No. of subjects = 106 Number of obs = 106
No. of failures = 96
Time at risk = 1422.87
```

```
Log likelihood = -353.37634 LR chi2(10) = 20.37
Prob > chi2 = 0.0259
```

_t	Haz. Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
lnvalue	.933912	.2496855	-0.26	0.798	.5530106	1.57717
fstatus						

high	.9143598	.2086547	-0.39	0.695	.5846218	1.430076
ffemale						
female	.5634424	.1331541	-2.43	0.015	.3545614	.8953803
female						
female	1.513132	.3640813	1.72	0.085	.9442036	2.424869
cage						
age 18-30	.5385855	.1649788	-2.02	0.043	.2954716	.9817334
age 55+	1.392077	.4747664	0.97	0.332	.7134469	2.716218
1.business	2.016793	.8645652	1.64	0.102	.8704937	4.672584
temperature	1.141237	.1876856	0.80	0.422	.8267781	1.575298
traffic	1.114042	.0916006	1.31	0.189	.9482281	1.308852
direction						
right	1.975979	.554263	2.43	0.015	1.140302	3.424087

. estat phtest

Test of proportional-hazards assumption

Time: Time

	chi2	df	Prob>chi2
global test	8.77	10	0.5545

```
. qui stcox lnvalue i.fstatus i.ffemale##i.female ///
> ib2.cage i.business temperature traffic i.direction
```

. lincom 1.ffemale#1.female

(1) 1.ffemale#1.female = 0

_t	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
(1)	-.6687912	.4680335	-1.43	0.153	-1.58612 .2485377

. // - absolute value difference

```
. eststo v05absdif: stcox absvdif i.fstatus i.ffemale i.female ///
> ib2.cage i.business temperature traffic i.direction
```

```
failure _d: poshonk == 1
analysis time _t: honk
```

Iteration 0: log likelihood = -363.56296

Iteration 1: log likelihood = -349.06097

Iteration 2: log likelihood = -348.66773

Iteration 3: log likelihood = -348.66563

Iteration 4: log likelihood = -348.66563

Refining estimates:

Iteration 0: log likelihood = -348.66563

Cox regression -- Breslow method for ties

No. of subjects = 106 Number of obs = 106

No. of failures = 96

Time at risk = 1422.87

Log likelihood = -348.66563

LR chi2(10) = 29.79

Prob > chi2 = 0.0009

_t	Haz. Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
absvdiff	2.40037	.6845103	3.07	0.002	1.372594	4.197727
fstatus high	.5159618	.1530334	-2.23	0.026	.2885045	.9227468
ffemale female	.5100143	.1208572	-2.84	0.004	.3205344	.8115031
female female	1.497317	.3624852	1.67	0.095	.9316365	2.406473
cage age 18-30	.4712337	.147337	-2.41	0.016	.2553276	.869711
age 55+	1.274921	.429887	0.72	0.471	.6583684	2.468866
1.business temperature	2.278488	.9684327	1.94	0.053	.9905083	5.241258
traffic	1.179545	.1957823	0.99	0.320	.8519836	1.633045
direction right	1.103581	.0935718	1.16	0.245	.9346124	1.303098
	2.145174	.5978891	2.74	0.006	1.242285	3.704281

. estat phtest

Test of proportional-hazards assumption

Time: Time

	chi2	df	Prob>chi2
global test	7.88	10	0.6404

. qui stcox absvdiff i.fstatus i.ffemale##i.female ///
> ib2.cage i.business temperature traffic i.direction

. lincom 1.ffemale#1.female

(1) 1.ffemale#1.female = 0

_t	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
(1)	-.4978944	.4677209	-1.06	0.287	-1.414611	.4188218

. // - positive and negative value difference

. eststo v05dnup: stcox vdownward vupward i.fstatus i.ffemale i.female ///

> ib2.cage i.business temperature traffic i.direction

failure _d: poshonk == 1

analysis time _t: honk

Iteration 0: log likelihood = -363.56296

Iteration 1: log likelihood = -348.79983

Iteration 2: log likelihood = -348.45642

Iteration 3: log likelihood = -348.45463

Iteration 4: log likelihood = -348.45463

Refining estimates:

Iteration 0: log likelihood = -348.45463

Cox regression -- Breslow method for ties

```

No. of subjects =          106          Number of obs   =          106
No. of failures =           96
Time at risk   =        1422.87
Log likelihood =   -348.45463
LR chi2(11)    =          30.22
Prob > chi2    =          0.0015

```

_t	Haz. Ratio	Std. Err.	z	P> z	[95% Conf. Interval]	
vdownward	2.989313	1.311551	2.50	0.013	1.265056	7.063713
vupward	2.109933	.7299172	2.16	0.031	1.071029	4.15658
fstatus						
high	.6583282	.312808	-0.88	0.379	.2594118	1.670687
ffemale						
female	.5004987	.1190774	-2.91	0.004	.3139693	.7978453
female						
female	1.501898	.363698	1.68	0.093	.9343603	2.414162
cage						
age 18-30	.4742792	.1475268	-2.40	0.016	.2577886	.8725784
age 55+	1.310836	.4450369	0.80	0.425	.6738451	2.549979
1.business	2.366048	1.018151	2.00	0.045	1.017975	5.499333
temperature	1.16446	.1944584	0.91	0.362	.8394191	1.615365
traffic	1.103812	.0931674	1.17	0.242	.9355122	1.30239
direction						
right	2.135969	.594781	2.73	0.006	1.23757	3.68655

```

. lincom vdownward-vupward
( 1) vdownward - vupward = 0

```

_t	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
(1)	.3483874	.5355004	0.65	0.515	-.7011741	1.397949

```

. estat phtest
Test of proportional-hazards assumption
Time: Time

```

	chi2	df	Prob>chi2
global test	7.84	11	0.7278

```

. stcurve, survival ///
> at1(vdownward=0 vupward=0 fstatus=0) ///
> at2(vdownward='=ln(1.5)' vupward=0 fstatus=0) ///
> at3(vdownward='=ln(2)' vupward=0 fstatus=0) ///
> at4(vdownward=0 vupward=0 fstatus=1) ///
> at5(vdownward=0 vupward='=ln(1.5)' fstatus=1) ///
> at6(vdownward=0 vupward='=ln(2)' fstatus=1) ///
> range(0 20) outfile(results/surv05, replace) nodraw
. qui stcox vdownward vupward i.fstatus i.ffemale##i.female ///
> ib2.cage i.business temperature traffic i.direction

```

```
. lincom 1.ffemale#1.female
( 1) 1.ffemale#1.female = 0
```

_t	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
(1)	-.4897283	.469386	-1.04	0.297	-1.409708	.4302513

Descriptives of predictors.

```
. preserve
. gen byte alow = aggr==0
. gen byte amid = aggr==1
. gen byte ahigh = aggr==2
. gen byte cage18 = cage==1
. gen byte cage31 = cage==2
. gen byte cage56 = cage==3
. estpost su fstatus ffemale alow amid ahigh absdiff downward upward ///
> lnvalue absvdiff vdownward vupward female cage18 cage31 cage56 ///
> business temperature traffic direction
```

	e(count)	e(sum_w)	e(mean)	e(Var)	e(sd)	e(min)
fstatus	106	106	.4811321	.2520216	.5020175	0
ffemale	106	106	.5283019	.2515723	.5015699	0
alow	106	106	.3679245	.2347709	.4845316	0
amid	106	106	.3867925	.2394429	.4893291	0
ahigh	106	106	.245283	.1868823	.4322989	0
absdiff	106	106	.9716981	.618239	.7862818	0
downward	106	106	.4433962	.4967655	.7048159	0
upward	106	106	.5283019	.5944295	.7709925	0
lnvalue	106	106	10.01741	.2038043	.4514469	8.819052
absvdiff	106	106	.7920165	.2465281	.4965159	.0155752
vdownward	106	106	.2589271	.1315613	.3627138	0
vupward	106	106	.5330895	.3936585	.6274221	0
female	106	106	.3490566	.2293801	.4789364	0
cage18	106	106	.4056604	.2433962	.493352	0
cage31	106	106	.4622642	.2509434	.5009425	0
cage56	106	106	.1320755	.1157233	.3401812	0
business	106	106	.0754717	.0704403	.2654058	0
temperature	106	106	28.19311	.9691815	.9844702	25.87
traffic	106	106	11.64167	4.900916	2.213801	9.491
direction	106	106	.7641509	.1819407	.4265451	0
	e(max)	e(sum)				
fstatus	1	51				
ffemale	1	56				
alow	1	39				
amid	1	41				
ahigh	1	26				
absdiff	2	103				
downward	2	47				
upward	2	56				
lnvalue	11.51293	1061.846				
absvdiff	1.939827	83.95375				
vdownward	1.460439	27.44627				

vupward	1.939827	56.50748
female	1	37
cage18	1	43
cage31	1	49
cage56	1	14
business	1	8
temperature	29.4	2988.47
traffic	15.4496	1234.017
direction	1	81

```

. eststo des05
. restore

```

Store results on disk.

```

. estwrite * using results/2005, replace
(saving surv2005)
(saving s05main)
(saving s05absdif)
(saving s05dnup)
(saving v05main)
(saving v05absdif)
(saving v05dnup)
(saving des05)
(file results/2005.sters saved)

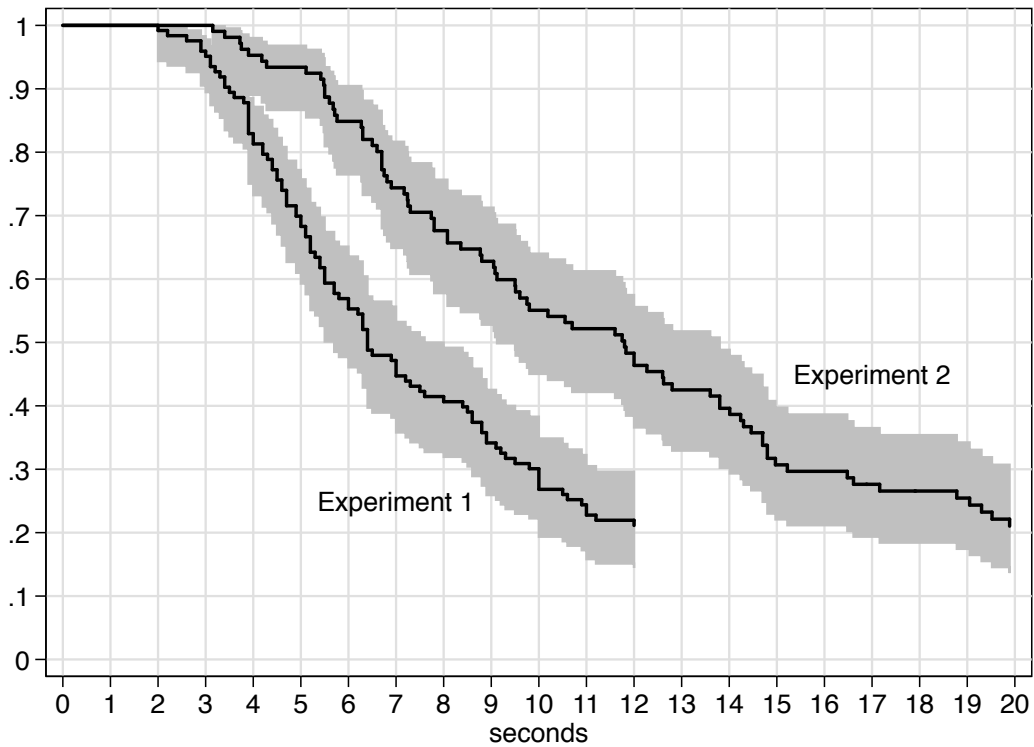
```

3.3 Results processing

```

. clear all
. qui estread results/1995
. qui estread results/2005
. // survival graph
. coefplot (surv1995, cionly) (surv2005, cionly if(@at<=20)) ///
> (surv1995, noci) (surv2005, noci if(@at<=20)) ///
> , at recast(line) c(J) lc(black) lw(*1.5) ///
> legend(off) text(.25 7 "Experiment 1" .45 17 "Experiment 2" ) ///
> ci(ci) ciopts(recast(rarea) asty(ci) c(J)) ///
> ylabel(0(0.1)1, angle(hor) grid gmin) graphr(margin(b=1 l=0 t=2 r=2)) ///
> xlabel(0(1)20, grid gmax) xti(seconds) scheme(s1mono)
(surv1995: CI1 missing for some coefficients)
(surv2005: CI1 missing for some coefficients)

```

```

. // regression table
. esttab s95absdif s95dnup s05absdif s05dnup v05absdif v05dnup, ///
> eform nogap nobase b(2) compress modelw(8) ///
> stats(N N_fail chi2 df_m, layout(@(@) @(@)) star(chi2) f(g g 1 g)) ///
> rename(absvdif absdif vdownward downward vupward upward) ///
> 1.fstatus 1.frust) mti nonum ///
> order(absdif downward upward 1.frust 1.ffemale) ///
> star(+ 0.10 * 0.05 ** 0.01 *** 0.001)

```

	s95abs~f	s95dnup	s05abs~f	s05dnup	v05abs~f	v05dnup
absdif	1.42*		1.45*		2.40**	
	(2.16)		(2.44)		(3.07)	
downward		1.11		1.07		2.99*
		(0.46)		(0.34)		(2.50)
upward		1.90*		2.02**		2.11*
		(2.57)		(3.17)		(2.16)
1.frust	1.15	0.67	0.85	0.46*	0.52*	0.66
	(0.67)	(-0.99)	(-0.71)	(-2.08)	(-2.23)	(-0.88)
1.ffemale			0.52**	0.53**	0.51**	0.50**
			(-2.81)	(-2.69)	(-2.84)	(-2.91)
1.female	0.64	0.55*	1.61+	1.50+	1.50+	1.50+
	(-1.64)	(-2.08)	(1.95)	(1.66)	(1.67)	(1.68)
1.cage	1.45	1.33	0.48*	0.47*	0.47*	0.47*
	(1.27)	(0.97)	(-2.42)	(-2.47)	(-2.41)	(-2.40)
3.cage	1.72*	1.78*	1.46	1.44	1.27	1.31
	(2.07)	(2.18)	(1.12)	(1.07)	(0.72)	(0.80)
1.business			2.38*	2.05	2.28+	2.37*
			(2.01)	(1.64)	(1.94)	(2.00)
temperat~e			1.13	1.24	1.18	1.16
			(0.75)	(1.25)	(0.99)	(0.91)
traffic			1.09	1.12	1.10	1.10

		(1.05)	(1.37)	(1.16)	(1.17)
1.direct~n		2.10**	2.14**	2.15**	2.14**
		(2.65)	(2.72)	(2.74)	(2.73)

N(N_fail)	123(97)	123(97)	106(96)	106(96)	106(96)	106(96)
chi2(df_m)	13.5(5)*	16.0(6)*	26.4(10)**	31.0(11)**	29.8(10)***	30.2(11)**

Exponentiated coefficients; t statistics in parentheses

+ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

```
. esttab s95absdif s95dnup s05absdif s05dnup v05absdif v05dnup ///
> using results/tables.rtf, replace ///
> eform nogap nobase b(2) compress onecell ///
> stats(N N_fail chi2 df_m, layout(@(@) @(@)) star(chi2) f(g g 1 g)) ///
> rename(absvdif absdif vdownward downward vupward upward) ///
> 1.fstatus 1.frust) mti nonum ///
> order(absdif downward upward 1.frust 1.ffemale) ///
> star(+ 0.10 * 0.05 ** 0.01 *** 0.001)
(output written to results/tables.rtf)
```

```
. // descriptives
. esttab des95 des05, main(mean) b(3) not nostar mti nonum ///
> drop(absdif downward upward lnvalue absvdif vdownward vupward) ///
> traffic temperature) rename(fstatus frust) order(frust ffemale)
```

	des95	des05
frust	0.496	0.481
ffemale		0.528
alow	0.252	0.368
amid	0.553	0.387
ahigh	0.195	0.245
female	0.236	0.349
cage18	0.138	0.406
cage31	0.650	0.462
cage56	0.211	0.132
business		0.075
direction		0.764

N	123	106
---	-----	-----

mean coefficients

```
. esttab des95 des05 using results/tables.rtf, append ///
> main(mean) b(3) not nostar mti nonum ///
> drop(absdif downward upward lnvalue absvdif vdownward vupward) ///
> traffic temperature) rename(fstatus frust) order(frust ffemale)
(output written to results/tables.rtf)

. esttab des95 des05, main(mean) b(a3) wide aux(sd 2) nostar mti nonum ///
> keep(absdif downward upward lnvalue absvdif vdownward vupward) ///
> traffic temperature)
```

	des95		des05	
absdif	0.976	(0.67)	0.972	(0.79)
downward	0.463	(0.67)	0.443	(0.70)
upward	0.512	(0.69)	0.528	(0.77)
lnvalue			10.02	(0.45)
absvdif			0.792	(0.50)
vdownward			0.259	(0.36)
vupward			0.533	(0.63)

temperature	28.19	(0.98)
traffic	11.64	(2.21)

N	123	106
---	-----	-----

mean coefficients; sd in parentheses

```
. esttab des95 des05 using results/tables.rtf, append ///
> main(mean) wide b(a3) aux(sd) nostar mti nonum ///
> keep(absdiff downward upward lnvalue absvdiff vdownward vupward ///
> traffic temperature)
(output written to results/tables.rtf)
```

```
. // predicted survival curves by status difference
. clear all
```

```
. use results/surv95
```

```
. gen byte id = 1
```

```
. append using results/surv05
```

```
. replace id = 2 if id>=.
```

```
(87 real changes made)
```

```
. append using results/surv05
```

```
. replace id = 3 if id>=.
```

```
(87 real changes made)
```

```
. rename surv2 same0
```

```
. rename surv5 same1
```

```
. rename surv3 small0
```

```
. rename surv6 small1
```

```
. rename surv4 large0
```

```
. rename surv7 large1
```

```
. gen id1 = _n
```

```
. reshape long same small large, i(id1) j(id2)
```

```
(note: j = 0 1)
```

Data	wide	->	long
Number of obs.	297	->	594
Number of variables	9	->	7
j variable (2 values)		->	id2
xij variables:			
	same0 same1	->	same
	small0 small1	->	small
	large0 large1	->	large

```
. gen byte grp = (id-1)*2+1 + id2
```

```
. lab def grp 1 "Experiment 1 (status)" 2 "Experiment 1 (status)" ///
```

```
> 3 "Experiment 2 (status)" 4 "Experiment 2 (status)" ///
```

```
> 5 "Experiment 2 (value)" 6 "Experiment 2 (value)"
```

```
. lab val grp grp
```

```
. two line same small large _t, connect(J) ysize(7.5) legend(pos(0)) ///
```

```
> xlabel(2(2)20, grid gmin gmax) xti("") ///
```

```
> ylabel(0(.1)1, angle(hor) grid gmin gmax) ///
```

```
> by(grp, cols(2) compact note("") legend(off) iscale(*.85) ///
```

```
> graphr(margin(b=0 l=0 t=1 r=2))) ///
```

```
> lw(*1.5 ..) lc(black ..) lp(1 _ -) scheme(s1mono)
```

```

. addplot 1: , title("Low status blocker", tsty(subheading) margin(b=1)) ///
>   norescaling
. addplot 2: , title("High status blocker", tsty(subheading) margin(b=1)) ///
>   norescaling ///
>   legend(on bplace(ne) cols(1) symxsize(8) region(style(none))) ///
>   order(1 "small" 2 "medium" 3 "large") ///
>   ti("Difference:", placement(nw) margin(l=-1) tsty(body))

```

