

APPENDIX D

DATA

SECTION C OF THE HUMAN FACTORS CHECKLIST

Section C of the human factors checklist was completed for all systems. As mentioned, this section required the two human factors experts to drive both of the test vehicles equipped with each system during both daytime and nighttime conditions (as described in section 2.2.3 of this report). The expert first answered Part I which consisted of a stationary evaluation of the system and then drove a specified course with the system. Upon completion of the driving session, the expert answered Part II of Section C. For ease of presentation, this data was summarized using a table for both parts of Section C as given in Tables D.1 and D.2 below.

As for all checklist responses, the following convention applies:

- Y = Yes
- N = No
- N/A = Not applicable
- ND = Not determinable
- NC = No comment (No response was given)

A response of "N/A" OR "ND" for a question relating to documentation indicates that no documentation was provided for that system.

Data also are not listed for runs made by either expert with System G in the HMMWV at night. These runs were not conducted due to the system being returned to the manufacturer to resolve a condition of malfunction experienced late in the test program.

No data are listed for System R due to a malfunctioning condition experienced during the testing.

TABLE D.1. Data for Section C - Part I: Stationary Evaluation

Question	System	Day/Night	Legend		HMMWV	
			Driver #1	Driver #2	Driver #1	Driver #2
1a	A	D	5	5	5	5
1a	A	N	5	5	5	5
1a	B	D	ND	N/A	ND	N/A
1a	B	N	ND	N/A	ND	N/A
1a	D	D	ND	N/A	ND	N/A
1a	D	N	ND	N/A	ND	N/A
1a	E	D	3	4	3	4
1a	E	N	3	4	3	4
1a	F	D	N/A	N/A	N/A	N/A
1a	F	N	N/A	N/A	N/A	N/A
1a	G	D	N/A	N/A	N/A	N/A

1a	G	N	N/A	N/A	--	--
1a	H	D	5	5	5	5
1a	H	N	5	5	5	5
1a	P	D	3	4	3	4
1a	P	N	3	4	3	4
1a	Q	D	4	1	4	1
1a	Q	N	4	4	4	4
1a	S	D	N/A	N/A	N/A	N/A
1a	S	N	N/A	N/A	N/A	N/A
1b	A	D	4	5	4	5
1b	A	N	4	5	4	5
1b	B	D	N/A	N/A	N/A	N/A
1b	B	N	N/A	N/A	N/A	N/A
1b	D	D	N/A	N/A	N/A	N/A
1b	D	N	ND	N/A	ND	N/A
1b	E	D	3	3	3	3
1b	E	N	3	3	4	3
1b	F	D	N/A	N/A	N/A	N/A
1b	F	N	N/A	N/A	N/A	N/A
1b	G	D	N/A	N/A	N/A	N/A
1b	G	N	N/A	N/A	--	--
1b	H	D	5	5	5	5
1b	H	N	5	5	5	5
1b	P	D	5	4	5	4
1b	P	N	5	4	5	4
1b	Q	D	5	4	5	4
1b	Q	N	5	5	5	5
1b	S	D	N/A	N/A	N/A	N/A
1b	S	N	N/A	N/A	N/A	N/A
1c	A	D	4	2	4	5
1c	A	N	4	2	4	5
1c	B	D	ND	N/A	ND	N/A
1c	B	N	ND	N/A	ND	N/A
1c	D	D	ND	N/A	ND	N/A
1c	D	N	ND	N/A	ND	N/A
1c	E	D	2	2	2	2
1c	E	N	2	2	3	2

1c	F	D	N/A	N/A	N/A	N/A
1c	F	N	N/A	N/A	N/A	N/A
1c	G	D	N/A	N/A	N/A	N/A
1c	G	N	N/A	N/A	-	-
1c	H	D	5	5	5	5
1c	H	N	5	5	5	5
1c	P	D	4	3	4	3
1c	P	N	4	3	4	3
1c	Q	D	4	1	4	1
1c	Q	N	4	4	4	4
1c	S	D	N/A	N/A	N/A	N/A
1c	S	N	N/A	N/A	N/A	N/A
2	A	D	NC	What is meaning of underscore beneath "x" character in auxiliary display?	NC	No
2	A	N	NC	NC	NC	NC
2	B	D	N/A	N/A	N/A	N/A
2	B	N	N/A	N/A	N/A	N/A
2	D	D	N/A	N/A	N/A	N/A
2	D	N	N/A	N/A	N/A	N/A
2	E	D	NC	NC	System operation	Control labels? Meaning of rotary knob?
2	E	N	NC	NC	System purpose	NC
2	F	D	N/A	N/A	N/A	N/A
2	F	N	N/A	N/A	N/A	N/A
2	G	D	N/A	N/A	N/A	N/A
2	G	N	N/A	N/A	-	-
2	H	D	Is range control for forward sensor only?	No	NC	No
2	H	N	NC	No	NC	No
2	P	D	NC	No	NC	No
2	P	N	NC	No	NC	No
2	Q	D	What do the lines on the screen signify?	No	NC	NC
2	Q	N	NC	No	NC	NC
2	S	D	N/A	N/A	N/A	N/A

2	S	N	N/A	N/A	N/A	N/A
3	A	D	5	3	5	5
3	A	N	4	4	4	4
3	B	D	3	4	N/A	4
3	B	N	3	4	N/A	5
3	D	D	4	4	4	4
3	D	N	4	4	4	5
3	E	D	2	4	4	5
3	E	N	4	5	4	4
3	F	D	3	ND	3	5
3	F	N	3	5	3	5
3	G	D	2	4	2	2
3	G	N	2	5	--	--
3	H	D	4	4	4	3
3	H	N	5	4	4	3
3	P	D	1	1	2	1
3	P	N	2	1	3	1
3	Q	D	3	3	3	3
3	Q	N	5	5	4	N/A
3	S	D	N/A	N/A	N/A	N/A
3	S	N	N/A	N/A	N/A	N/A
4a	A	D	1	4	1	N/A
4a	A	N	1	1	1	4
4a	B	D	3	3	3	5
4a	B	N	3	3	3	5
4a	D	D	N/A	N/A	N/A	ND
4a	D	N	N/A	3	N/A	4
4a	E	D	N/A	5	N/A	3
4a	E	N	N/A	4	N/A	3
4a	F	D	3	2	4	4
4a	F	N	3	4	3	1
4a	G	D	ND	4	ND	2
4a	G	N	ND	5	--	--
4a	H	D	5	4	5	4
4a	H	N	5	4	4	4
4a	P	D	N/A	N/A	N/A	N/A
4a	P	N	N/A	N/A	5	N/A

4a	Q	D	N/A	N/A	N/A	N/A
4a	Q	N	N/A	N/A	N/A	N/A
4a	S	D	N/A	ND	N/A	N/A
4a	S	N	N/A	N/A	N/A	N/A
4b	A	D	1	ND	1	N/A
4b	A	N	1	1	1	1
4b	B	D	1	1	1	1
4b	B	N	1	1	1	1
4b	D	D	N/A	N/A	N/A	ND
4b	D	N	N/A	4	N/A	1
4b	E	D	N/A	5	N/A	1
4b	E	N	N/A	4	N/A	1
4b	F	D	N/A	N/A	N/A	N/A
4b	F	N	N/A	N/A	N/A	N/A
4b	G	D	ND	4	ND	2
4b	G	N	ND	5	--	--
4b	H	D	N/A	4	5	5
4b	H	N	N/A	4	ND	4
4b	P	D	N/A	N/A	N/A	N/A
4b	P	N	N/A	N/A	N/A	N/A
4b	Q	D	N/A	N/A	N/A	N/A
4b	Q	N	N/A	N/A	N/A	N/A
4b	S	D	N/A	ND	N/A	N/A
4b	S	N	N/A	N/A	N/A	N/A
5a	A	D	5	5	5	4
5a	A	N	5	5	5	3
5a	B	D	4	5	3	5
5a	B	N	4	5	3	5
5a	D	D	3	N/A	3	ND
5a	D	N	3	N/A	3	5
5a	E	D	5	5	4	N/A
5a	E	N	4	5	4	N/A
5a	F	D	N/A	1	N/A	1
5a	F	N	N/A	3	N/A	1
5a	G	D	4	5	3	5
5a	G	N	4	5	--	--
5a	H	D	5	5	5	5

5a	H	N	5	5	5	4
5a	P	D	5	N/A	N/A	N/A
5a	P	N	N/A	N/A	5	N/A
5a	Q	D	N/A	N/A	5	5
5a	Q	N	5	5	5	5
5a	S	D	N/A	N/A	N/A	N/A
5a	S	N	N/A	N/A	N/A	N/A
5b	A	D	N/A	N/A	N/A	N/A
5b	A	N	N/A	N/A	N/A	N/A
5b	B	D	N/A	N/A	N/A	N/A
5b	B	N	N/A	N/A	N/A	N/A
5b	D	D	N/A	N/A	N/A	N/A
5b	D	N	N/A	N/A	N/A	N/A
5b	E	D	N/A	N/A	N/A	N/A
5b	E	N	N/A	N/A	N/A	N/A
5b	F	D	N/A	N/A	N/A	N/A
5b	F	N	N/A	N/A	N/A	N/A
5b	G	D	N/A	N/A	N/A	N/A
5b	G	N	N/A	N/A	--	--
5b	H	D	N/A	N/A	N/A	N/A
5b	H	N	N/A	N/A	N/A	N/A
5b	P	D	N/A	N/A	N/A	N/A
5b	P	N	N/A	N/A	N/A	N/A
5b	Q	D	N/A	N/A	N/A	N/A
5b	Q	N	N/A	N/A	N/A	N/A
5b	S	D	N/A	N/A	N/A	N/A
5b	S	N	N/A	N/A	N/A	N/A
5c	A	D	3	5	4	5
5c	A	N	3	5	4	5
5c	B	D	5	5	5	5
5c	B	N	5	5	5	5
5c	D	D	2	3	2	3
5c	D	N	2	3	2	2
5c	E	D	3	5	4	5
5c	E	N	5	4	4	4
5c	F	D	3	4	4	1
5c	F	N	3	4	3	1

5c	G	D	3	3	3	5
5c	G	N	4	5	-	-
5c	H	D	5	5	4	5
5c	H	N	5	5	4	5
5c	P	D	5	N/A	5	N/A
5c	P	N	5	N/A	4	N/A
5c	Q	D	5	N/A	5	N/A
5c	Q	N	5	N/A	5	N/A
5c	S	D	N/A	N/A	N/A	N/A
5c	S	N	N/A	N/A	N/A	N/A
5d	A	D	N/A	N/A	N/A	N/A
5d	A	N	N/A	N/A	N/A	N/A
5d	B	D	N/A	N/A	N/A	N/A
5d	B	N	N/A	N/A	N/A	N/A
5d	D	D	N/A	N/A	N/A	N/A
5d	D	N	N/A	N/A	N/A	N/A
5d	E	D	N/A	N/A	N/A	N/A
5d	E	N	N/A	N/A	N/A	N/A
5d	F	D	N/A	N/A	N/A	N/A
5d	F	N	N/A	N/A	N/A	N/A
5d	G	D	N/A	N/A	N/A	N/A
5d	G	N	N/A	N/A	-	-
5d	H	D	N/A	N/A	N/A	N/A
5d	H	N	N/A	N/A	N/A	N/A
5d	P	D	N/A	N/A	N/A	N/A
5d	P	N	N/A	N/A	N/A	N/A
5d	Q	D	N/A	N/A	N/A	N/A
5d	Q	N	N/A	N/A	N/A	N/A
5d	S	D	N/A	N/A	N/A	N/A
5d	S	N	N/A	N/A	N/A	N/A
5e	A	D	4	5	4	5
5e	A	N	4	4	4	5
5e	B	D	ND	1	4	ND
5e	B	N	ND	1	4	ND
5e	D	D	ND	N/A	ND	N/A
5e	D	N	ND	2	ND	2
5e	E	D	ND	5	4	5

5e	E	N	ND	5	5	5
5e	F	D	N/A	N/A	N/A	N/A
5e	F	N	N/A	N/A	N/A	N/A
5e	G	D	3	5	3	5
5e	G	N	5	5	--	--
5e	H	D	N/A	5	ND	5
5e	H	N	N/A	5	ND	N/A
5e	P	D	N/A	N/A	N/A	N/A
5e	P	N	N/A	N/A	N/A	N/A
5e	Q	D	N/A	N/A	N/A	N/A
5e	Q	N	5	N/A	N/A	N/A
5e	S	D	4	1	4	4
5e	S	N	3	3	3	3
5f	A	D	N/A	N/A	N/A	N/A
5f	A	N	N/A	N/A	N/A	N/A
5f	B	D	N/A	N/A	N/A	N/A
5f	B	N	N/A	N/A	N/A	N/A
5f	D	D	N/A	N/A	N/A	N/A
5f	D	N	N/A	N/A	N/A	N/A
5f	E	D	N/A	N/A	N/A	N/A
5f	E	N	N/A	N/A	N/A	N/A
5f	F	D	N/A	N/A	N/A	N/A
5f	F	N	N/A	N/A	N/A	N/A
5f	G	D	N/A	N/A	N/A	N/A
5f	G	N	N/A	N/A	--	--
5f	H	D	N/A	N/A	N/A	N/A
5f	H	N	N/A	N/A	N/A	N/A
5f	P	D	N/A	N/A	N/A	N/A
5f	P	N	N/A	N/A	N/A	N/A
5f	Q	D	N/A	N/A	N/A	N/A
5f	Q	N	N/A	N/A	N/A	N/A
5f	S	D	N/A	N/A	N/A	N/A
5f	S	N	N/A	N/A	N/A	N/A

TABLE D.2. Data for Section C - Part II: Dynamic Evaluation

Question	System	Day/Night	Legend		HMMWV	
			Driver #1	Driver #2	Driver #1	Driver #2
1a	A	D	N/A	N/A	N/A	N/A
1a	A	N	N/A	N/A	N/A	N/A
1a	B	D	N/A	N/A	N/A	N/A
1a	B	N	N/A	N/A	N/A	N/A
1a	D	D	N/A	N/A	N/A	N/A
1a	D	N	N/A	N/A	N/A	N/A
1a	E	D	N/A	N/A	N/A	N/A
1a	E	N	N/A	N/A	N/A	N/A
1a	F	D	N/A	N/A	N/A	N/A
1a	F	N	N/A	N/A	N/A	N/A
1a	G	D	N/A	N/A	N/A	N/A
1a	G	N	N/A	N/A	N/A	N/A
1a	H	D	N/A	N/A	N/A	N/A
1a	H	N	N/A	N/A	N/A	N/A
1a	P	D	N/A	N/A	N/A	N/A
1a	P	N	N/A	N/A	N/A	N/A
1a	Q	D	N/A	N/A	N/A	N/A
1a	Q	N	N/A	N/A	N/A	N/A
1a	S	D	N/A	N/A	N/A	N/A
1a	S	N	N/A	N/A	N/A	N/A
1b	A	D	3	2	3	2
1b	A	N	4	5	4	5
1b	B	D	N/A	N/A	N/A	N/A
1b	B	N	N/A	N/A	N/A	N/A
1b	D	D	4	5	5	5
1b	D	N	4	4	5	5
1b	E	D	N/A	N/A	N/A	N/A
1b	E	N	N/A	N/A	N/A	N/A
1b	F	D	N/A	N/A	N/A	N/A
1b	F	N	N/A	N/A	N/A	N/A
1b	G	D	N/A	N/A	N/A	N/A
1b	G	N	N/A	N/A	N/A	N/A
1b	H	D	N/A	N/A	N/A	N/A
1b	H	N	N/A	N/A	N/A	N/A
1b	P	D	N/A	N/A	N/A	N/A
1b	P	N	N/A	N/A	N/A	N/A
1b	Q	D	N/A	N/A	N/A	N/A
1b	Q	N	N/A	N/A	N/A	N/A
1b	S	D	N/A	N/A	N/A	N/A
1b	S	N	N/A	N/A	N/A	N/A

2	A	D	5	4	5	5
2	A	N	5	4	5	4
2	B	D	5	5	5	3
2	B	N	5	5	5	5
2	D	D	4	4	3	4
2	D	N	5	4	3	4
2	E	D	4	4	5	4
2	E	N	5	5	5	5
2	F	D	2	1	2	1
2	F	N	3	4	3	3
2	G	D	3	5	5	4
2	G	N	4	5		
2	H	D	5	5	3	2
2	H	N	3	5	4	2
2	P	D	N/A	N/A	5	N/A
2	P	N	5	3	5	N/A
2	Q	D	5	N/A	5	5
2	Q	N	5	N/A	5	5
2	S	D	N/A	N/A	N/A	N/A
2	S	N	N/A	N/A	N/A	N/A
3	A	D	4	4	5	5
3	A	N	5	5	5	4
3	B	D	5	5	5	4
3	B	N	5	5	5	5
3	D	D	4	4	4	3
3	D	N	4	4	4	3
3	E	D	4	4	5	5
3	E	N	5	5	5	5
3	F	D	3	5	3	5
3	F	N	3	4	3	5
3	G	D	5	5	5	4
3	G	N	4	5		
3	H	D	2	5	4	4
3	H	N	3	5	4	3
3	P	D	5	N/A	5	N/A
3	P	N	5	N/A	5	N/A
3	Q	D	5	N/A	5	N/A
3	Q	N	5	N/A	5	N/A
3	S	D	N/A	N/A	N/A	N/A
3	S	N	N/A	N/A	N/A	N/A
4a	A	D	5	5	5	5
4a	A	N	5	5	5	5
4a	B	D	5	5	5	5

4a	B	N	5	2	5	5
4a	D	D	5	4	4	4
4a	D	N	5	4	4	4
4a	E	D	5	5	5	5
4a	E	N	5	5	5	5
4a	F	D	4	5	4	5
4a	F	N	4	2	4	5
4a	G	D	5	5	5	5
4a	G	N	5	5		
4a	H	D	5	4	5	5
4a	H	N	2	3	5	5
4a	P	D	5	N/A	5	N/A
4a	P	N	5	N/A	5	N/A
4a	Q	D	5	N/A	5	5
4a	Q	N	5	N/A	5	5
4a	S	D	N/A	N/A	N/A	N/A
4a	S	N	N/A	N/A	N/A	N/A
<hr/>						
4b	A	D	5	5	5	5
4b	A	N	2	5	5	5
4b	B	D	5	5	5	5
4b	B	N	5	4	5	5
4b	D	D	5	3	4	2
4b	D	N	2	3	3	3
4b	E	D	5	5	5	5
4b	E	N	5	3	5	4
4b	F	D	5	5	5	3
4b	F	N	3	1	5	3
4b	G	D	4	5	5	5
4b	G	N	3	3		
4b	H	D	5	4	5	5
4b	H	N	5	3	5	5
4b	P	D	5	N/A	5	N/A
4b	P	N	5	N/A	5	N/A
4b	Q	D	5	N/A	5	N/A
4b	Q	N	5	N/A	5	N/A
4b	S	D	N/A	N/A	N/A	N/A
4b	S	N	N/A	N/A	N/A	N/A
<hr/>						
4c	A	D	N/A	N/A	N/A	N/A
4c	A	N	N/A	N/A	N/A	N/A
4c	B	D	N/A	N/A	N/A	N/A
4c	B	N	N/A	N/A	N/A	N/A
4c	D	D	N/A	N/A	N/A	N/A
4c	D	N	N/A	N/A	N/A	N/A
4c	E	D	N/A	N/A	N/A	N/A

4c	E	N	N/A	N/A	N/A	N/A
4c	F	D	N/A	N/A	N/A	N/A
4c	F	N	N/A	N/A	N/A	N/A
4c	G	D	N/A	N/A	N/A	N/A
4c	G	N	N/A	N/A	N/A	N/A
4c	H	D	N/A	N/A	N/A	N/A
4c	H	N	N/A	N/A	N/A	N/A
4c	H	N	N/A	N/A	N/A	N/A
4c	P	D	N/A	N/A	N/A	N/A
4c	P	N	N/A	N/A	N/A	N/A
4c	Q	D	N/A	N/A	N/A	N/A
4c	Q	N	N/A	N/A	N/A	N/A
4c	S	D	N/A	N/A	N/A	N/A
4c	S	N	N/A	N/A	N/A	N/A
<hr/>						
5a	A	D	N/A	N/A	N/A	N/A
5a	A	N	N/A	N/A	N/A	N/A
5a	B	D	N/A	N/A	N/A	N/A
5a	B	N	N/A	N/A	N/A	N/A
5a	D	D	N/A	N/A	N/A	N/A
5a	D	N	N/A	N/A	N/A	N/A
5a	E	D	N/A	N/A	N/A	N/A
5a	E	N	N/A	N/A	N/A	N/A
5a	F	D	N/A	N/A	N/A	N/A
5a	F	N	N/A	N/A	N/A	N/A
5a	G	D	N/A	N/A	N/A	N/A
5a	G	N	N/A	N/A	N/A	N/A
5a	H	D	N/A	N/A	N/A	N/A
5a	H	N	N/A	N/A	N/A	N/A
5a	P	D	N/A	N/A	N/A	N/A
5a	P	N	N/A	N/A	N/A	N/A
5a	Q	D	N/A	N/A	N/A	N/A
5a	Q	N	N/A	N/A	N/A	N/A
5a	S	D	N/A	N/A	N/A	N/A
5a	S	N	N/A	N/A	N/A	N/A
<hr/>						
5b	A	D	5	3	2	4
5b	A	N	2	2	4	5
5b	B	D	5	5	5	5
5b	B	N	5	5	5	5
5b	D	D	4	5	5	5
5b	D	N	5	4	3	5
5b	E	D	1	3	1	3
5b	E	N	2	2	3	4
5b	F	D	N/A	N/A	N/A	N/A
5b	F	N	N/A	N/A	N/A	N/A

5b	G	D	3	3	5	3
5b	G	N	2	4		
5b	H	D	5	5	5	2
5b	H	N	5	4	5	3
5b	P	D	N/A	N/A	N/A	N/A
5b	P	N	N/A	N/A	N/A	N/A
5b	Q	D	ND	N/A	ND	N/A
5b	Q	N	ND	N/A	ND	N/A
5b	S	D	4	2	3	5
5b	S	N	2	3	5	3
5c	A	D	N/A	N/A	N/A	N/A
5c	A	N	N/A	N/A	N/A	N/A
5c	B	D	N/A	N/A	N/A	N/A
5c	B	N	N/A	N/A	N/A	N/A
5c	D	D	N/A	N/A	N/A	N/A
5c	D	N	N/A	N/A	N/A	N/A
5c	E	D	N/A	N/A	N/A	N/A
5c	E	N	N/A	N/A	N/A	N/A
5c	F	D	N/A	N/A	N/A	N/A
5c	F	N	N/A	N/A	N/A	N/A
5c	G	D	N/A	N/A	N/A	N/A
5c	G	N	N/A	N/A	N/A	N/A
5c	H	D	N/A	N/A	N/A	N/A
5c	H	N	N/A	N/A	N/A	N/A
5c	P	D	N/A	N/A	N/A	N/A
5c	P	N	N/A	N/A	N/A	N/A
5c	Q	D	N/A	N/A	N/A	N/A
5c	Q	N	N/A	N/A	N/A	N/A
5c	S	D	N/A	N/A	N/A	N/A
5c	S	N	N/A	N/A	N/A	N/A
6a	A	D	N/A	N/A	N/A	N/A
6a	A	N	N/A	ND	N/A	N/A
6a	B	D	N/A	N/A	N/A	N/A
6a	B	N	N/A	N/A	N/A	N/A
6a	D	D	N/A	N/A	N/A	N/A
6a	D	N	N/A	N/A	N/A	N/A
6a	E	D	N/A	N/A	N/A	N/A
6a	E	N	N/A	N/A	N/A	N/A
6a	F	D	N/A	N/A	N/A	N/A
6a	F	N	N/A	N/A	N/A	N/A
6a	G	D	N/A	N/A	N/A	N/A
6a	G	N	N/A	N/A	N/A	N/A
6a	H	D	N/A	N/A	N/A	N/A
6a	H	N	N/A	N/A	N/A	N/A

6a	P	D	N/A	N/A	N/A	N/A
6a	P	N	N/A	N/A	N/A	N/A
6a	Q	D	N/A	N/A	N/A	N/A
6a	Q	N	N/A	N/A	N/A	N/A
6a	S	D	N/A	N/A	N/A	N/A
6a	S	N	N/A	N/A	N/A	N/A
<hr/>						
6b	A	D	4	ND	2	2
6b	A	N	1	ND	4	5
6b	B	D	5	3	5	4
6b	B	N	5	4	5	4
6b	D	D	5	5	5	5
6b	D	N	5	5	5	5
6b	E	D	1	2	1	1
6b	E	N	2	2	2	3
6b	F	D	N/A	N/A	N/A	N/A
6b	F	N	N/A	N/A	N/A	N/A
6b	G	D	3	2	5	2
6b	G	N	2	3		
6b	H	D	5	5	5	5
6b	H	N	5	5	5	5
6b	P	D	N/A	N/A	N/A	N/A
6b	P	N	N/A	N/A	N/A	N/A
6b	Q	D	ND	N/A	ND	N/A
6b	Q	N	ND	N/A	ND	N/A
6b	S	D	5	2	5	5
6b	S	N	1	2	3	2
<hr/>						
6c	A	D	N/A	N/A	N/A	N/A
6c	A	N	N/A	N/A	N/A	N/A
6c	B	D	N/A	N/A	N/A	N/A
6c	B	N	N/A	N/A	N/A	N/A
6c	D	D	N/A	N/A	N/A	N/A
6c	D	N	N/A	N/A	N/A	N/A
6c	E	D	N/A	N/A	N/A	N/A
6c	E	N	N/A	N/A	N/A	N/A
6c	F	D	N/A	N/A	N/A	N/A
6c	F	N	N/A	N/A	N/A	N/A
6c	G	D	N/A	N/A	N/A	N/A
6c	G	N	N/A	N/A	N/A	N/A
6c	H	D	N/A	N/A	N/A	N/A
6c	H	N	N/A	N/A	N/A	N/A
6c	P	D	N/A	N/A	N/A	N/A
6c	P	N	N/A	N/A	N/A	N/A
6c	Q	D	N/A	N/A	N/A	N/A
6c	Q	N	N/A	N/A	N/A	N/A

6c	S	D	N/A	N/A	N/A	N/A
6c	S	N	N/A	N/A	N/A	N/A
7	A	D	OK	ND	HIGH	LOW
7	A	N	HIGH	ND	OK	OK
7	B	D	OK	OK	LOW	ND
7	B	N	OK	OK	LOW	ND
7	D	D	OK	OK	LOW	N/A
7	D	N	OK	OK	LOW	LOW
7	E	D	HIGH	HIGH	HIGH	OK
7	E	N	HIGH	HIGH	HIGH	OK
7	F	D	N/A	N/A	N/A	N/A
7	F	N	N/A	N/A	N/A	N/A
7	G	D	LOW	LOW	LOW	LOW
7	G	N	LOW	LOW		
7	H	D	OK	OK	OK	OK
7	H	N	OK	OK	OK	OK
7	P	D	N/A	N/A	N/A	N/A
7	P	N	N/A	N/A	N/A	N/A
7	Q	D	N/A	N/A	N/A	N/A
7	Q	N	N/A	N/A	N/A	N/A
7	S	D	HIGH	OK	OK	LOW
7	S	N	HIGH	OK	LOW	LOW
8	A	D	OK	ND	OK	OK
8	A	N	OK	ND	OK	OK
8	B	D	HIGH	HIGH	OK	ND
8	B	N	HIGH	HIGH	HIGH	ND
8	D	D	OK	OK	OK	N/A
8	D	N	OK	OK	OK	HIGH
8	E	D	HIGH	HIGH	HIGH	HIGH
8	E	N	HIGH	HIGH	HIGH	HIGH
8	F	D	N/A	N/A	N/A	N/A
8	F	N	N/A	N/A	N/A	N/A
8	G	D	HIGH	HIGH	ND	HIGH
8	G	N	HIGH	HIGH		
8	H	D	OK	OK	OK	OK
8	H	N	OK	OK	OK	OK
8	P	D	N/A	N/A	N/A	N/A
8	P	N	N/A	N/A	N/A	N/A
8	Q	D	N/A	N/A	N/A	N/A
8	Q	N	N/A	N/A	N/A	N/A
8	S	D	OK	OK	OK	OK
8	S	N	LOW	OK	LOW	OK
9a	A	D	2	1	2	1

9a	A	N	3	1	5	2
9a	B	D	4	3	4	3
9a	B	N	5	2	5	3
9a	D	D	2	3	4	1
9a	D	N	2	3	3	3
9a	E	D	3	2	3	1
9a	E	N	4	1	4	1
9a	F	D	4	1	4	1
9a	F	N	4	2	5	1
9a	G	D	3	3	2	4
9a	G	N	2	3		
9a	H	D	2	1	4	1
9a	H	N	3	1	3	1
9a	P	D	N/A	N/A	N/A	N/A
9a	P	N	N/A	N/A	N/A	N/A
9a	Q	D	N/A	N/A	N/A	N/A
9a	Q	N	N/A	N/A	N/A	N/A
9a	S	D	N/A	N/A	N/A	N/A
9a	S	N	N/A	N/A	N/A	N/A
9b	A	D	N/A	N/A	N/A	N/A
9b	A	N	N/A	N/A	N/A	N/A
9b	B	D	N/A	N/A	N/A	N/A
9b	B	N	N/A	N/A	N/A	N/A
9b	D	D	N/A	N/A	N/A	N/A
9b	D	N	N/A	N/A	N/A	N/A
9b	E	D	N/A	N/A	N/A	N/A
9b	E	N	N/A	N/A	N/A	N/A
9b	F	D	4	1	3	1
9b	F	N	4	2	4	1
9b	G	D	N/A	N/A	N/A	N/A
9b	G	N	N/A	N/A	N/A	N/A
9b	H	D	N/A	N/A	N/A	N/A
9b	H	N	N/A	N/A	N/A	N/A
9b	P	D	N/A	N/A	N/A	N/A
9b	P	N	N/A	N/A	N/A	N/A
9b	Q	D	N/A	N/A	N/A	N/A
9b	Q	N	N/A	N/A	N/A	N/A
9b	S	D	N/A	N/A	N/A	N/A
9b	S	N	N/A	N/A	N/A	N/A
10a	A	D	1	1	1	1
10a	A	N	1	1	4	2
10a	B	D	4	3	4	3
10a	B	N	4	2	4	1
10a	D	D	2	3	4	1

10a	D	N	2	3	2	3
10a	E	D	3	2	3	1
10a	E	N	3	1	3	1
10a	F	D	3	1	4	1
10a	F	N	3	2	4	1
10a	G	D	3	2	2	1
10a	G	N	2	3		
10a	H	D	2	1	3	1
10a	H	N	2	1	3	1
10a	P	D	N/A	N/A	N/A	N/A
10a	P	N	N/A	N/A	N/A	N/A
10a	Q	D	N/A	N/A	N/A	N/A
10a	Q	N	N/A	N/A	N/A	N/A
10a	S	D	N/A	N/A	N/A	N/A
10a	S	N	N/A	N/A	N/A	N/A
10b	A	D	N/A	N/A	N/A	N/A
10b	A	N	N/A	N/A	N/A	N/A
10b	B	D	N/A	N/A	N/A	N/A
10b	B	N	N/A	N/A	N/A	N/A
10b	D	D	N/A	N/A	N/A	N/A
10b	D	N	N/A	N/A	N/A	N/A
10b	E	D	N/A	N/A	N/A	N/A
10b	E	N	N/A	N/A	N/A	N/A
10b	F	D	3	1	3	1
10b	F	N	3	2	4	1
10b	G	D	N/A	N/A	N/A	N/A
10b	G	N	N/A	N/A	N/A	N/A
10b	H	D	N/A	N/A	N/A	N/A
10b	H	N	N/A	N/A	N/A	N/A
10b	P	D	N/A	N/A	N/A	N/A
10b	P	N	N/A	N/A	N/A	N/A
10b	Q	D	N/A	N/A	N/A	N/A
10b	Q	N	N/A	N/A	N/A	N/A
10b	S	D	N/A	N/A	N/A	N/A
10b	S	N	N/A	N/A	N/A	N/A
11	A	D	N/A	N/A	N/A	N/A
11	A	N	N/A	N/A	N/A	N/A
11	B	D	N/A	N/A	N/A	N/A
11	B	N	N/A	N/A	N/A	N/A
11	D	D	N/A	N/A	N/A	N/A
11	D	N	N/A	N/A	N/A	N/A
11	E	D	N/A	N/A	N/A	N/A
11	E	N	N/A	N/A	N/A	N/A
11	F	D	N/A	N/A	N/A	N/A

11	F	N	N/A	N/A	N/A	N/A
11	G	D	N/A	N/A	N/A	N/A
11	G	N	N/A	N/A	N/A	N/A
11	H	D	N/A	N/A	N/A	N/A
11	H	N	N/A	N/A	N/A	N/A
11	P	D	2	N/A	4	N/A
11	P	N	1	1	1	1
11	Q	D	4	N/A	5	4
11	Q	N	5	1	5	3
11	S	D	4	2	4	2
11	S	N	1	2	1	2
12a	A	D	1	1	2	1
12a	A	N	1	1	4	1
12a	B	D	4	3	4	4
12a	B	N	4	1	4	3
12a	D	D	2	1	2	1
12a	D	N	1	1	2	1
12a	E	D	3	3	3	4
12a	E	N	3	1	4	1
12a	F	D	N/A	N/A	N/A	N/A
12a	F	N	N/A	N/A	N/A	N/A
12a	G	D	4	4	1	4
12a	G	N	3	3		
12a	H	D	2	1	2	1
12a	H	N	2	1	2	1
12a	P	N		N/A	N/A	N/A
12a	P	N	1	1	1	1
12a	Q	D	4	N/A	5	4
12a	Q	N	5	1	5	3
12a	S	D	4	2	4	2
12a	S	N	1	2	1	2
12b	A	D	N/A	N/A	N/A	N/A
12b	A	N	N/A	N/A	N/A	N/A
12b	B	D	N/A	N/A	N/A	N/A
12b	B	N	N/A	N/A	N/A	N/A
12b	D	D	N/A	N/A	N/A	N/A
12b	D	N	N/A	N/A	N/A	N/A
12b	E	D	N/A	N/A	N/A	N/A
12b	E	N	N/A	N/A	N/A	N/A
12b	F	D	N/A	N/A	N/A	N/A
12b	F	N	N/A	N/A	N/A	N/A
12b	G	D	N/A	N/A	N/A	N/A
12b	G	N	N/A	N/A	N/A	N/A
12b	H	D	N/A	N/A	N/A	N/A

12b	H	N	N/A	N/A	N/A	N/A
12b	P	D	N/A	N/A	N/A	N/A
12b	P	N	N/A	N/A	N/A	N/A
12b	Q	D	N/A	N/A	N/A	N/A
12b	Q	N	N/A	N/A	N/A	N/A
12b	S	D	N/A	N/A	N/A	N/A
12b	S	N	N/A	N/A	N/A	N/A
<hr/>						
13a	A	D	1	1	1	1
13a	A	N	1	1	4	1
13a	B	D	4	3	3	4
13a	B	N	4	1	3	1
13a	D	D	2	1	2	1
13a	D	N	2	1	2	1
13a	E	D	3	3	3	4
13a	E	N	3	1	2	1
13a	F	D	N/A	N/A	N/A	N/A
13a	F	N	N/A	N/A	N/A	N/A
13a	G	D	3	3	1	1
13a	G	N	2	3		
13a	H	D	1	1	1	2
13a	H	N	1	1	1	1
13a	P	D	N/A	N/A	N/A	N/A
13a	P	N	N/A	N/A	N/A	N/A
13a	Q	D	N/A	N/A	N/A	N/A
13a	Q	N	N/A	N/A	N/A	N/A
13a	S	D	N/A	N/A	N/A	N/A
13a	S	N	N/A	N/A	N/A	N/A
<hr/>						
13b	A	D	N/A	N/A	N/A	N/A
13b	A	N	N/A	N/A	N/A	N/A
13b	B	D	N/A	N/A	N/A	N/A
13b	B	N	N/A	N/A	N/A	N/A
13b	D	D	N/A	N/A	N/A	N/A
13b	D	N	N/A	N/A	N/A	N/A
13b	E	D	N/A	N/A	N/A	N/A
13b	E	N	N/A	N/A	N/A	N/A
13b	F	D	N/A	N/A	N/A	N/A
13b	F	N	N/A	N/A	N/A	N/A
13b	G	D	N/A	N/A	N/A	N/A
13b	G	N	N/A	N/A	N/A	N/A
13b	H	D	N/A	N/A	N/A	N/A
13b	H	N	N/A	N/A	N/A	N/A
13b	P	D	N/A	N/A	N/A	N/A
13b	P	N	N/A	N/A	N/A	N/A
13b	Q	D	N/A	N/A	N/A	N/A

13b	Q	N	N/A	N/A	N/A	N/A
13b	S	D	N/A	N/A	N/A	N/A
13b	S	N	N/A	N/A	N/A	N/A
14	A	D	NO	NO	NO	NO
14	A	N	NO	NO	YES	YES
14	B	D	YES	NO	YES	YES
14	B	N	YES	NO	YES	YES
14	D	D	NO	YES	YES	NO
14	D	N	YES	YES	NO	YES
14	E	D	YES	YES	YES	YES
14	E	N	YES	NO	YES	NO
14	F	D	YES	NO	YES	YES
14	F	N	YES	YES	YES	NO
14	G	D	YES	YES	YES	YES
14	G	N	YES	YES		
14	H	D	YES	YES	YES	YES
14	H	N	YES	YES	YES	YES
14	P	D	N/A	N/A	N/A	N/A
14	P	N	N/A	N/A	N/A	N/A
14	Q	D	N/A	N/A	N/A	N/A
14	Q	N	N/A	N/A	N/A	N/A
14	S	D	N/A	N/A	N/A	N/A
14	S	N	N/A	N/A	N/A	N/A
14%	A	D	0	0	0	0
14%	A	N	0	0	10	10
14%	B	D	30	0	10	10
14%	B	N	33	0	60	10
14%	D	D	0	50	20	0
14%	D	N	5	25	0	20
14%	E	D	5	20	25	60
14%	E	N	30	0	5	0
14%	F	D	80	0	90	10
14%	F	N	70	75	100	0
14%	G	D	90	60	50	10
14%	G	N	50	20		
14%	H	D	100	30	60	10
14%	H	N	90	50	50	20
14%	P	D	N/A	N/A	N/A	N/A
14%	P	N	N/A	N/A	N/A	N/A
14%	Q	D	N/A	N/A	N/A	N/A
14%	Q	N	N/A	N/A	N/A	N/A
14%	S	D	N/A	N/A	N/A	N/A
14%	S	N	N/A	N/A	N/A	N/A

15	A	D	NO	NO	NO	NO
15	A	N	NO	NO	NO	NO
15	B	D	NO	NO	YES	YES
15	B	N	NO	NO	NO	YES
15	D	D	NO	YES	NO	NO
15	D	N	NO	YES	NO	YES
15	E	D	NO	YES	YES	YES
15	E	N	NO	NO	NO	NO
15	F	D	YES	NO	YES	YES
15	F	N	YES	YES	YES	NO
15	G	D	YES	YES	NO	YES
15	G	N	YES	YES		
15	H	D	YES	YES	NO	YES
15	H	N	YES	YES	YES	YES
15	P	D	N/A	N/A	N/A	N/A
15	P	N	N/A	N/A	N/A	N/A
15	Q	D	N/A	N/A	N/A	N/A
15	Q	N	N/A	N/A	N/A	N/A
15	S	D	N/A	N/A	N/A	N/A
15	S	N	N/A	N/A	N/A	N/A
15%	A	D	0	0	0	0
15%	A	N	0	0	0	0
15%	B	D	0	0	15	10
15%	B	N	0	0	0	10
15%	D	D	0	50	0	0
15%	D	N	0	25	0	20
15%	E	D	0	20	25	75
15%	E	N	0	0	0	0
15%	F	D	50	0	75	10
15%	F	N	50	75	80	0
15%	G	D	33	60	0	50
15%	G	N	20	20		
15%	H	D	50	30	0	10
15%	H	N	30	20	50	20
15%	P	D	N/A	N/A	N/A	N/A
15%	P	N	N/A	N/A	N/A	N/A
15%	Q	D	N/A	N/A	N/A	N/A
15%	Q	N	N/A	N/A	N/A	N/A
15%	S	D	N/A	N/A	N/A	N/A
16%	S	N	N/A	N/A	N/A	N/A
16	A	D	N/A	N/A	N/A	N/A
16	A	N	N/A	N/A	N/A	N/A
16	B	D	N/A	N/A	N/A	N/A
16	B	N	N/A	N/A	N/A	N/A

16	D	D	N/A	N/A	N/A	N/A
16	D	N	N/A	N/A	N/A	N/A
16	E	D	N/A	N/A	N/A	N/A
16	E	N	N/A	N/A	N/A	N/A
16	F	D	N/A	N/A	N/A	N/A
16	F	N	N/A	N/A	N/A	N/A
16	G	D	N/A	N/A	N/A	N/A
16	G	N	N/A	N/A	N/A	N/A
16	H	D	N/A	N/A	N/A	N/A
16	H	N	N/A	N/A	N/A	N/A
16	P	D	YES	YES	YES	YES
16	P	N	YES	YES	YES	YES
16	Q	D	YES	YES	YES	YES
16	Q	N	YES	YES	YES	YES
16	S	D	YES	YES	YES	YES
16	S	N	YES	YES	YES	YES
16%	A	D	N/A	N/A	N/A	N/A
16%	A	N	N/A	N/A	N/A	N/A
16%	B	D	N/A	N/A	N/A	N/A
16%	B	N	N/A	N/A	N/A	N/A
16%	D	D	N/A	N/A	N/A	N/A
16%	D	N	N/A	N/A	N/A	N/A
16%	E	D	N/A	N/A	N/A	N/A
16%	E	N	N/A	N/A	N/A	N/A
16%	F	D	N/A	N/A	N/A	N/A
16%	F	N	N/A	N/A	N/A	N/A
16%	G	D	N/A	N/A	N/A	N/A
16%	G	N	N/A	N/A	N/A	N/A
16%	H	D	N/A	N/A	N/A	N/A
16%	H	N	N/A	N/A	N/A	N/A
16%	P	D	100	40	100	100
16%	P	N	75	20	100	20
16%	Q	D	100	20	100	100
16%	Q	N	100	20	100	100
16%	S	D	100	60	100	40
16%	S	N	80	100	100	100
17a	A	D	N/A	N/A	N/A	N/A
17a	A	N	N/A	N/A	N/A	N/A
17a	B	D	N/A	N/A	N/A	N/A
17a	B	N	N/A	N/A	N/A	N/A
17a	D	D	N/A	N/A	N/A	N/A
17a	D	N	N/A	N/A	N/A	N/A
17a	E	D	N/A	N/A	N/A	N/A
17a	E	N	N/A	N/A	N/A	N/A

17a	F	D	SAME	SAME	SAME	SAME
17a	F	N	SAME	SAME	SAME	SAME
17a	G	D	N/A	N/A	N/A	N/A
17a	G	N	N/A	N/A	N/A	N/A
17a	H	D	N/A	N/A	N/A	N/A
17a	H	N	N/A	N/A	N/A	N/A
17a	P	D	N/A	N/A	N/A	N/A
17a	P	N	N/A	N/A	N/A	N/A
17a	Q	D	N/A	N/A	N/A	N/A
17a	Q	N	N/A	N/A	N/A	N/A
17a	S	D	N/A	N/A	N/A	N/A
17a	S	N	N/A	N/A	N/A	N/A
17b	A	D	SAME	SAME	SAME	SAME
17b	A	N	SAME	SAME	SAME	SAME
17b	B	D	SAME	N/A	MORE	SAME
17b	B	N	SAME	N/A	SAME	SAME
17b	D	D	SAME	SAME	SAME	SAME
17b	D	N	SAME	SAME	MORE	SAME
17b	E	D	SAME	SAME	SAME	SAME
17b	E	N	SAME	SAME	SAME	SAME
17b	F	D	SAME	SAME	SAME	SAME
17b	F	N	SAME	SAME	SAME	SAME
17b	G	D	ND	ND	MORE	SAME
17b	G	N	ND	ND		
17b	H	D	SAME	SAME	SAME	SAME
17b	H	N	SAME	SAME	SAME	SAME
17b	P	D	N/A	N/A	N/A	N/A
17b	P	N	N/A	N/A	N/A	N/A
17b	Q	D	N/A	N/A	N/A	N/A
17b	Q	N	N/A	N/A	N/A	N/A
17b	S	D	N/A	N/A	N/A	N/A
17b	S	N	N/A	N/A	N/A	N/A
18a	A	D	N/A	N/A	N/A	N/A
18a	A	N	N/A	N/A	N/A	N/A
18a	B	D	N/A	N/A	N/A	N/A
18a	B	N	N/A	N/A	N/A	N/A
18a	D	D	N/A	N/A	N/A	N/A
18a	D	N	N/A	N/A	N/A	N/A
18a	E	D	N/A	N/A	N/A	N/A
18a	E	N	N/A	N/A	N/A	N/A
18a	F	D	SAME	SAME	SAME	SAME
18a	F	N	SAME	SAME	SAME	SAME
18a	G	D	N/A	N/A	N/A	SAME
18a	G	N	N/A	N/A		

18a	H	D	N/A	N/A	N/A	N/A
18a	H	N	N/A	N/A	N/A	N/A
18a	P	D	N/A	N/A	N/A	N/A
18a	P	N	N/A	N/A	N/A	N/A
18a	Q	D	N/A	N/A	N/A	N/A
18a	Q	N	N/A	N/A	N/A	N/A
18a	S	D	N/A	N/A	N/A	N/A
18a	S	N	N/A	N/A	N/A	N/A
18b	A	D	MORE	SAME	SAME	SAME
18b	A	N	SAME	SAME	SAME	SAME
18b	B	D	MORE	SAME	MORE	SAME
18b	B	N	MORE	SAME	SAME	SAME
18b	D	D	MORE	SAME	SAME	SAME
18b	D	N	SAME	SAME	MORE	SAME
18b	E	D	MORE	SAME	MORE	SAME
18b	E	N	MORE	SAME	SAME	SAME
18b	F	D	SAME	SAME	SAME	SAME
18b	F	N	SAME	SAME	SAME	SAME
18b	G	D	MORE	MORE	SAME	N/A
18b	G	N	SAME	MORE		
18b	H	D	SAME	SAME	SAME	SAME
18b	H	N	SAME	SAME	SAME	SAME
18b	P	D	N/A	N/A	N/A	N/A
18b	P	N	N/A	N/A	N/A	N/A
18b	Q	D	N/A	N/A	N/A	N/A
18b	Q	N	N/A	N/A	N/A	N/A
18b	S	D	N/A	N/A	N/A	N/A
18b	s	N	N/A	N/A	N/A	N/A
19a	P	D	SAME	SAME	MORE	LESS
19a	P	N	SAME	SAME	SAME	LESS
19a	Q	D	SAME	SAME	SAME	LESS
19a	Q	N	SAME	SAME	SAME	LESS
19a	S	D	SAME	SAME	MORE	SAME
19a	S	N	SAME	SAME	SAME	SAME
19b	P	D	SAME	SAME	MORE	LESS
19b	P	N	SAME	SAME	SAME	LESS
19b	Q	D	SAME	SAME	SAME	LESS
19b	Q	N	SAME	SAME	SAME	LESS
19b	S	D	SAME	SAME	MORE	SAME
19b	S	N	SAME	SAME	SAME	SAME
19c	P	D	SAME	SAME	N/A	N/A
19c	P	N	SAME	SAME	N/A	N/A
19c	Q	D	SAME	SAME	N/A	N/A

19c	Q	N	SAME	SAME	N/A	N/A
19c	S	D	SAME	SAME	N/A	N/A
19c	S	N	MORE	SAME	N/A	N/A
20a	P	D	SAME	SAME	MORE	SAME
20a	P	N	SAME	SAME	SAME	SAME
20a	Q	D	SAME	SAME	SAME	SAME
20a	Q	N	SAME	SAME	SAME	SAME
20a	S	D	SAME	SAME	MORE	SAME
20a	S	N	SAME	SAME	SAME	SAME
20b	P	D	SAME	SAME	SAME	SAME
20b	P	N	SAME	SAME	SAME	SAME
20b	Q	D	SAME	SAME	SAME	SAME
20b	Q	N	SAME	SAME	SAME	SAME
20b	S	D	SAME	SAME	SAME	SAME
20b	S	N	SAME	SAME	SAME	SAME