

The SAS System

Design Summary

Number of Levels	Frequency
2	13
8	1

The SAS System

```
Saturated      = 21  
Full Factorial = 65,536
```

Some Reasonable Design Sizes	Violations	Cannot Be Divided By
32 *	0	
48 *	0	
64 *	0	
24	13	16
40	13	16
56	13	16
28	14	8 16
36	14	8 16
44	14	8 16
52	14	8 16
21 S	105	2 4 8 16

```
* - 100% Efficient design can be made with the MktEx macro.  
S - Saturated Design - The smallest design that can be made.  
Note that the saturated design is not one of the  
recommended designs for this problem. It is shown  
to provide some context for the recommended sizes.
```

The SAS System

n	Design	Reference
32	2 ** 24 8 ** 1	Fractional-Factorial
32	2 ** 21 4 ** 1 8 ** 1	Fractional-Factorial
32	2 ** 18 4 ** 2 8 ** 1	Fractional-Factorial
32	2 ** 15 4 ** 3 8 ** 1	Fractional-Factorial
48	2 ** 40 8 ** 1	Orthogonal Array
48	2 ** 33 3 ** 1 8 ** 1	Orthogonal Array
48	2 ** 31 6 ** 1 8 ** 1	Orthogonal Array
64	2 ** 56 8 ** 1	Fractional-Factorial
64	2 ** 53 4 ** 1 8 ** 1	Fractional-Factorial
64	2 ** 50 4 ** 2 8 ** 1	Fractional-Factorial
64	2 ** 49 8 ** 2	Fractional-Factorial
64	2 ** 47 4 ** 3 8 ** 1	Fractional-Factorial
64	2 ** 46 4 ** 1 8 ** 2	Fractional-Factorial
64	2 ** 44 4 ** 4 8 ** 1	Fractional-Factorial
64	2 ** 43 4 ** 2 8 ** 2	Fractional-Factorial
64	2 ** 42 8 ** 3	Fractional-Factorial
64	2 ** 41 4 ** 5 8 ** 1	Fractional-Factorial
64	2 ** 40 4 ** 3 8 ** 2	Fractional-Factorial
64	2 ** 39 4 ** 1 8 ** 3	Fractional-Factorial
64	2 ** 38 4 ** 6 8 ** 1	Fractional-Factorial
64	2 ** 37 4 ** 4 8 ** 2	Fractional-Factorial
64	2 ** 36 4 ** 2 8 ** 3	Fractional-Factorial
64	2 ** 35 4 ** 7 8 ** 1	Fractional-Factorial
64	2 ** 35 8 ** 4	Fractional-Factorial
64	2 ** 34 4 ** 5 8 ** 2	Fractional-Factorial
64	2 ** 33 4 ** 3 8 ** 3	Fractional-Factorial
64	2 ** 32 4 ** 8 8 ** 1	Fractional-Factorial
64	2 ** 32 4 ** 1 8 ** 4	Fractional-Factorial
64	2 ** 31 4 ** 6 8 ** 2	Fractional-Factorial

n	Design	Reference
64	2 ** 30 4 ** 4 8 ** 3	Fractional-Factorial
64	2 ** 29 4 ** 9 8 ** 1	Fractional-Factorial
64	2 ** 29 4 ** 2 8 ** 4	Fractional-Factorial
64	2 ** 28 4 ** 7 8 ** 2	Fractional-Factorial
64	2 ** 28 8 ** 5	Fractional-Factorial
64	2 ** 27 4 ** 5 8 ** 3	Fractional-Factorial
64	2 ** 26 4 ** 10 8 ** 1	Fractional-Factorial
64	2 ** 26 4 ** 3 8 ** 4	Fractional-Factorial
64	2 ** 25 4 ** 8 8 ** 2	Fractional-Factorial
64	2 ** 25 4 ** 1 8 ** 5	Fractional-Factorial
64	2 ** 24 4 ** 6 8 ** 3	Fractional-Factorial
64	2 ** 23 4 ** 11 8 ** 1	Fractional-Factorial
64	2 ** 23 4 ** 4 8 ** 4	Fractional-Factorial
64	2 ** 22 4 ** 9 8 ** 2	Fractional-Factorial
64	2 ** 22 4 ** 2 8 ** 5	Fractional-Factorial
64	2 ** 21 4 ** 7 8 ** 3	Fractional-Factorial
64	2 ** 21 8 ** 6	Fractional-Factorial
64	2 ** 20 4 ** 12 8 ** 1	Fractional-Factorial
64	2 ** 20 4 ** 5 8 ** 4	Fractional-Factorial
64	2 ** 19 4 ** 10 8 ** 2	Fractional-Factorial
64	2 ** 19 4 ** 3 8 ** 5	Fractional-Factorial
64	2 ** 18 4 ** 8 8 ** 3	Fractional-Factorial
64	2 ** 18 4 ** 1 8 ** 6	Fractional-Factorial
64	2 ** 17 4 ** 13 8 ** 1	Fractional-Factorial
64	2 ** 17 4 ** 6 8 ** 4	Fractional-Factorial
64	2 ** 16 4 ** 11 8 ** 2	Fractional-Factorial
64	2 ** 16 4 ** 4 8 ** 5	Fractional-Factorial
64	2 ** 15 4 ** 9 8 ** 3	Fractional-Factorial
64	2 ** 15 4 ** 2 8 ** 6	Fractional-Factorial
64	2 ** 14 4 ** 14 8 ** 1	Fractional-Factorial
64	2 ** 14 4 ** 7 8 ** 4	Fractional-Factorial

n	Design	Reference
64	2 ** 14 8 ** 7	Fractional-Factorial
64	2 ** 13 4 ** 12 8 ** 2	Fractional-Factorial
64	2 ** 13 4 ** 5 8 ** 5	Fractional-Factorial

The SAS System**Algorithm Search History**

Design	Row, Col	Current D-Efficiency	Best D-Efficiency	Notes
1	Start	100.0000	100.0000	Tab
1	End	100.0000		

The SAS System

The OPTEX Procedure

Class Level Information

Class	Levels	Values
x1	2	1 2
x2	2	1 2
x3	2	1 2
x4	2	1 2
x5	2	1 2
x6	2	1 2
x7	2	1 2
x8	2	1 2
x9	2	1 2
x10	2	1 2
x11	2	1 2
x12	2	1 2
x13	2	1 2
x14	8	1 2 3 4 5 6 7 8

The SAS System

Design Number	D-Efficiency	A-Efficiency	G-Efficiency	Average Prediction Standard Error
1	100.0000	100.0000	100.0000	0.5728

The SAS System

Obs	f1	f2	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$1
2	1	1	1	1	1	1	1	1	0	0	0	0	1	1	0	\$5
3	1	1	1	1	1	1	1	0	1	0	1	1	0	0	1	\$3
4	1	1	1	1	1	1	1	0	0	1	0	0	0	0	0	\$7
5	1	1	1	1	1	1	0	1	1	0	0	1	0	1	1	\$8
6	1	1	1	1	1	1	0	1	0	1	1	0	0	1	0	\$4
7	1	1	1	1	1	1	0	0	1	1	0	1	1	0	1	\$6
8	1	1	1	1	1	1	0	0	0	0	1	0	1	0	0	\$2
9	1	1	1	1	0	0	1	1	1	1	0	0	0	0	0	\$5
10	1	1	1	1	0	0	1	1	0	0	1	1	0	0	1	\$1
11	1	1	1	1	0	0	1	0	1	0	0	0	1	1	0	\$7
12	1	1	1	1	0	0	1	0	0	1	1	1	1	1	1	\$3
13	1	1	1	1	0	0	0	1	1	0	1	0	1	0	0	\$4
14	1	1	1	1	0	0	0	1	0	1	0	1	1	0	1	\$8
15	1	1	1	1	0	0	0	0	1	1	1	0	0	1	0	\$2
16	1	1	1	1	0	0	0	0	0	0	0	1	0	1	1	\$6
17	1	1	1	0	1	0	1	1	1	1	1	0	0	1	1	\$3
18	1	1	1	0	1	0	1	1	0	0	0	1	0	1	0	\$7
19	1	1	1	0	1	0	1	0	1	0	1	0	1	0	1	\$1
20	1	1	1	0	1	0	1	0	0	1	0	1	1	0	0	\$5
21	1	1	1	0	1	0	0	1	1	0	0	0	1	1	1	\$6
22	1	1	1	0	1	0	0	1	0	1	1	1	1	1	0	\$2
23	1	1	1	0	1	0	0	0	1	1	0	0	0	0	1	\$8
24	1	1	1	0	1	0	0	0	0	0	1	1	0	0	0	\$4
25	1	1	1	0	0	1	1	1	1	1	0	1	1	0	0	\$7
26	1	1	1	0	0	1	1	1	0	0	1	0	1	0	1	\$3
27	1	1	1	0	0	1	1	0	1	0	0	1	0	1	0	\$5
28	1	1	1	0	0	1	1	0	0	1	1	0	0	1	1	\$1
29	1	1	1	0	0	1	0	1	1	0	1	1	0	0	0	\$2

Obs	f1	f2	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
30	1	1	1	0	0	1	0	1	0	1	0	0	0	0	1	\$6
31	1	1	1	0	0	1	0	0	1	1	1	1	1	1	0	\$4
32	1	1	1	0	0	1	0	0	0	0	0	0	1	1	1	\$8
33	1	1	0	1	1	0	1	1	1	1	1	1	0	0	0	\$8
34	1	1	0	1	1	0	1	1	0	0	0	0	0	0	1	\$4
35	1	1	0	1	1	0	1	0	1	0	1	1	1	1	0	\$6
36	1	1	0	1	1	0	1	0	0	1	0	0	1	1	1	\$2
37	1	1	0	1	1	0	0	1	1	0	0	1	1	0	0	\$1
38	1	1	0	1	1	0	0	1	0	1	1	0	1	0	1	\$5
39	1	1	0	1	1	0	0	0	1	1	0	1	0	1	0	\$3
40	1	1	0	1	1	0	0	0	0	0	1	0	0	1	1	\$7
41	1	1	0	1	0	1	1	1	1	1	0	0	1	1	1	\$4
42	1	1	0	1	0	1	1	1	0	0	1	1	1	1	0	\$8
43	1	1	0	1	0	1	1	0	1	0	0	0	0	0	1	\$2
44	1	1	0	1	0	1	1	0	0	1	1	1	0	0	0	\$6
45	1	1	0	1	0	1	0	1	1	0	1	0	0	1	1	\$5
46	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	\$1
47	1	1	0	1	0	1	0	0	1	1	1	0	1	0	1	\$7
48	1	1	0	1	0	1	0	0	0	0	0	1	1	0	0	\$3
49	1	1	0	0	1	1	1	1	1	1	1	0	1	0	0	\$6
50	1	1	0	0	1	1	1	1	0	0	0	1	1	0	1	\$2
51	1	1	0	0	1	1	1	0	1	0	1	0	0	1	0	\$8
52	1	1	0	0	1	1	1	0	0	1	0	1	0	1	1	\$4
53	1	1	0	0	1	1	0	1	1	0	0	0	0	0	0	\$3
54	1	1	0	0	1	1	0	1	0	1	1	1	0	0	1	\$7
55	1	1	0	0	1	1	0	0	1	1	0	0	1	1	0	\$1
56	1	1	0	0	1	1	0	0	0	0	1	1	1	1	1	\$5
57	1	1	0	0	0	0	1	1	1	1	0	1	0	1	1	\$2
58	1	1	0	0	0	0	1	1	0	0	1	0	0	1	0	\$6
59	1	1	0	0	0	0	1	0	1	0	0	1	1	0	1	\$4
60	1	1	0	0	0	0	1	0	0	1	1	0	1	0	0	\$8

Obs	f1	f2	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
61	1	1	0	0	0	0	0	1	1	0	1	1	1	1	1	\$7
62	1	1	0	0	0	0	0	1	0	1	0	0	1	1	0	\$3
63	1	1	0	0	0	0	0	0	1	1	1	1	0	0	1	\$5
64	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	\$1

The SAS System

n	Name	Beta	Label
1	Status_update1	0	Status_update 1
2	Notes1	0	Notes 1
3	Comments1	0	Comments 1
4	Wall_posts1	0	Wall_posts 1
5	Private_messages1	0	Private_messages 1
6	Chats1	0	Chats 1
7	Groups1	0	Groups 1
8	Newsfeed1	0	Newsfeed 1
9	Like1	0	Like 1
10	Photos_videos1	0	Photos_videos 1
11	Events1	0	Events 1
12	Gaming1	0	Gaming 1
13	Fan_pages1	0	Fan_pages 1
14	Price_1	0	Price \$1
15	Price_2	0	Price \$2
16	Price_3	0	Price \$3
17	Price_4	0	Price \$4
18	Price_5	0	Price \$5
19	Price_6	0	Price \$6
20	Price_7	0	Price \$7

The SAS System

Design	Iteration	D-Efficiency	D-Error
1	0	27.47912 *	0.03639
	1	38.84648 *	0.02574
	2	39.31842 *	0.02543
	3	39.41886 *	0.02537

Design	Iteration	D-Efficiency	D-Error
2	0	27.21600	0.03674
	1	38.74747	0.02581
	2	39.20050	0.02551
	3	39.27480	0.02546

The SAS System

Final Results

Design	1
Choice Sets	64
Alternatives	2
Parameters	20
Maximum Parameters	64
D-Efficiency	39.4189
Relative D-Eff	61.5920
D-Error	0.0254
1 / Choice Sets	0.0156

The SAS System

n	Variable Name	Label	Variance	DF	Standard Error
1	Status_update1	Status_update 1	0.022944	1	0.15147
2	Notes1	Notes 1	0.020844	1	0.14437
3	Comments1	Comments 1	0.025037	1	0.15823
4	Wall_posts1	Wall_posts 1	0.023550	1	0.15346
5	Private_messages1	Private_messages 1	0.025182	1	0.15869
6	Chats1	Chats 1	0.024283	1	0.15583
7	Groups1	Groups 1	0.021778	1	0.14758
8	Newsfeed1	Newsfeed 1	0.023888	1	0.15456
9	Like1	Like 1	0.035475	1	0.18835
10	Photos_videos1	Photos_videos 1	0.027038	1	0.16443
11	Events1	Events 1	0.024658	1	0.15703
12	Gaming1	Gaming 1	0.022138	1	0.14879
13	Fan_pages1	Fan_pages 1	0.021818	1	0.14771
14	Price_1	Price \$1	0.026647	1	0.16324
15	Price_2	Price \$2	0.032657	1	0.18071
16	Price_3	Price \$3	0.027629	1	0.16622
17	Price_4	Price \$4	0.028170	1	0.16784
18	Price_5	Price \$5	0.029868	1	0.17282
19	Price_6	Price \$6	0.030041	1	0.17332
20	Price_7	Price \$7	0.030646	1	0.17506
				20	

The SAS System

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	\$1
		2	1	1	1	1	1	1	0	0	0	0	1	1	0	\$5

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
1	2	1	1	1	0	0	1	1	1	1	0	0	0	0	0	\$5
		2	1	1	0	0	1	1	0	0	1	1	0	0	1	\$1

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
1	3	1	1	0	1	0	0	0	1	1	0	0	0	0	1	\$8
		2	1	0	1	0	0	0	0	0	1	1	0	0	0	\$4

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
1	4	1	1	0	0	1	0	0	1	1	1	1	1	1	0	\$4
		2	1	0	0	1	0	0	0	0	0	0	0	1	1	1

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
1	5	1	0	1	1	0	1	0	1	0	1	1	1	1	0	\$6
		2	0	1	1	0	1	0	0	1	0	0	0	1	1	1

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
1	6	1	0	1	0	1	1	0	1	0	0	0	0	0	1	\$2
		2	0	1	0	1	1	0	0	1	1	1	0	0	0	0

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
1	7	1	0	0	1	1	0	1	1	0	0	0	0	0	0	\$3
		2	0	0	1	1	0	0	1	0	1	1	1	0	0	1

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
1	8	1	0	0	0	0	0	1	1	0	1	1	1	1	1	\$7
		2	0	0	0	0	0	0	1	0	1	0	0	1	1	0

The SAS System

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
2	1	1	1	1	1	1	0	0	1	1	0	1	1	0	1	\$6
		2	1	1	1	1	0	0	0	0	1	0	1	0	0	\$2

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
2	2	1	1	1	0	0	0	1	1	0	1	0	1	0	0	\$4
		2	1	1	0	0	0	0	1	0	1	0	1	1	0	1

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
2	3	1	1	0	1	0	1	0	1	0	1	0	1	0	1	\$1
		2	1	0	1	0	1	0	0	1	0	1	1	0	0	\$5

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
2	4	1	1	0	0	1	1	1	1	1	0	1	1	0	0	\$7
		2	1	0	0	1	1	1	0	0	1	0	1	0	1	\$3

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
2	5	1	0	1	1	0	0	0	1	1	0	1	0	1	0	\$3
		2	0	1	1	0	0	0	0	0	1	0	0	1	1	\$7

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
2	6	1	0	1	0	1	0	1	1	0	1	0	0	1	1	\$5
		2	0	1	0	1	0	1	0	1	0	1	0	1	0	\$1

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
2	7	1	0	0	1	1	1	0	1	0	1	0	0	1	0	\$8
		2	0	0	1	1	1	0	0	1	0	1	0	1	1	\$4

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
2	8	1	0	0	0	0	1	1	1	1	0	1	0	1	1	\$2
		2	0	0	0	0	0	1	1	0	0	1	0	0	1	0

The SAS System

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
3	1	1	1	1	1	1	0	1	1	0	0	1	0	1	1	\$8
		2	1	1	1	1	0	1	0	1	1	0	0	1	0	\$4

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
3	2	1	1	1	0	0	0	0	1	1	1	0	0	1	0	\$2
		2	1	1	0	0	0	0	0	0	0	0	1	0	1	\$6

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
3	3	1	1	0	1	0	1	1	1	1	1	0	0	1	1	\$3
		2	1	0	1	0	1	1	0	0	0	1	0	1	0	\$7

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
3	4	1	1	0	0	1	1	0	1	0	0	1	0	1	0	\$5
		2	1	0	0	1	1	0	0	1	1	0	0	1	1	\$1

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
3	5	1	0	1	1	0	0	1	1	0	0	1	1	0	0	\$1
		2	0	1	1	0	0	1	0	1	1	0	1	0	1	\$5

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
3	6	1	0	1	0	1	0	0	1	1	1	0	1	0	1	\$7
		2	0	1	0	1	0	0	0	0	0	1	1	0	0	\$3

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
3	7	1	0	0	1	1	1	1	1	1	1	0	1	0	0	\$6
		2	0	0	1	1	1	1	0	0	0	1	1	0	1	\$2

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
3	8	1	0	0	0	0	1	0	1	0	0	1	1	0	1	\$4
		2	0	0	0	0	0	1	0	0	1	1	0	1	0	\$8

The SAS System

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
4	1	1	1	1	1	1	1	0	1	0	1	1	0	0	1	\$3
		2	1	1	1	1	1	1	0	0	1	0	0	0	0	\$7

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
4	2	1	1	1	0	0	1	0	1	0	0	0	1	1	0	\$7
		2	1	1	0	0	1	0	0	1	1	1	1	1	1	\$3

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
4	3	1	1	0	1	0	0	1	1	0	0	0	1	1	1	\$6
		2	1	0	1	0	0	0	1	0	1	1	1	1	1	\$2

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
4	4	1	1	0	0	1	0	1	1	0	1	1	0	0	0	\$2
		2	1	0	0	1	0	0	1	0	1	0	0	0	0	\$6

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
4	5	1	0	1	1	0	1	1	1	1	1	1	0	0	0	\$8
		2	0	1	1	0	0	1	1	0	0	0	0	0	0	\$4

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
4	6	1	0	1	0	1	1	1	1	1	0	0	1	1	1	\$4
		2	0	1	0	1	1	1	0	0	1	1	1	1	1	\$8

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
4	7	1	0	0	1	1	0	0	1	1	0	0	1	1	0	\$1
		2	0	0	1	1	0	0	0	0	1	1	1	1	1	\$5

Block	Set	Alt	Status_update	Notes	Comments	Wall_posts	Private_messages	Chats	Groups	Newsfeed	Like	Photos_videos	Events	Gaming	Fan_pages	Price
4	8	1	0	0	0	0	0	0	1	1	1	1	0	0	1	\$5
		2	0	0	0	0	0	0	0	0	0	0	0	0	0	\$1

The SAS System

The PHREG Procedure

Model Information	
Data Set	WORK.DESDATA
Dependent Variable	c
Censoring Variable	c
Censoring Value(s)	2
Ties Handling	BRESLOW

Number of Observations Read	816
Number of Observations Used	816

Class Level Information				
Class	Value	Value	Design Variables	
Status_update	0	0		
	1	1		
Notes	0	0		
	1	1		
Comments	0	0		
	1	1		
Wall_posts	0	0		
	1	1		
Private_messages	0	0		
	1	1		
Chats	0	0		
	1	1		
Groups	0	0		
	1	1		
Newsfeed	0	0		
	1	1		
Like	0	0		
	1	1		
Photos_videos	0	0		
	1	1		

Class Level Information									
Class	Value	Design Variables							
	1	1							
Events	0	0							
	1	1							
Gaming	0	0							
	1	1							
Fan_pages	0	0							
	1	1							
Price	\$1	0	0	0	0	0	0	0	0
	\$2	1	0	0	0	0	0	0	0
	\$3	0	1	0	0	0	0	0	0
	\$4	0	0	1	0	0	0	0	0
	\$5	0	0	0	1	0	0	0	0
	\$6	0	0	0	0	1	0	0	0
	\$7	0	0	0	0	0	1	0	0
	\$8	0	0	0	0	0	0	1	0

Summary of Subjects, Sets, and Chosen and Unchosen Alternatives				
Pattern	Number of Choices	Number of Alternatives	Chosen Alternatives	Not Chosen
1	408	2	1	1

Convergence Status

Convergence criterion (GCONV=1E-8) satisfied.

Model Fit Statistics		
Criterion	Without Covariates	With Covariates
-2 LOG L	565.608	412.763
AIC	565.608	430.763
SBC	565.608	466.864

Testing Global Null Hypothesis: BETA=0

Test	Chi-Square	DF	Pr > ChiSq
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Test	Chi-Square	DF	Pr > ChiSq
Likelihood Ratio	152.8455	9	<.0001
Score	131.4318	9	<.0001
Wald	95.5540	9	<.0001

Type 3 Tests			
Effect	DF	Wald Chi-Square	Pr > ChiSq
Status_update	0	.	.
Notes	0	.	.
Comments	0	.	.
Wall_posts	0	.	.
Private_messages	0	.	.
Chats	0	.	.
Groups	1	10.3852	0.0013
Newsfeed	1	22.3750	<.0001
Like	1	3.6005	0.0578
Photos_videos	1	34.8447	<.0001
Events	0	.	.
Gaming	0	.	.
Fan_pages	1	1.8122	0.1782
Price	4	69.8251	<.0001

Multinomial Logit Parameter Estimates					
	DF	Parameter Estimate	Standard Error	Chi-Square	Pr > ChiSq
Status_update 1	0	0	.	.	.
Notes 1	0	0	.	.	.
Comments 1	0	0	.	.	.
Wall_posts 1	0	0	.	.	.
Private_messages 1	0	0	.	.	.
Chats 1	0	0	.	.	.
Groups 1	1	0.39628	0.12297	10.3852	0.0013

Multinomial Logit Parameter Estimates					
	DF	Parameter Estimate	Standard Error	Chi-Square	Pr > ChiSq
Newsfeed 1	1	0.59207	0.12517	22.3750	<.0001
Like 1	1	0.23196	0.12224	3.6005	0.0578
Photos_videos 1	1	0.75263	0.12750	34.8447	<.0001
Events 1	0	0	.	.	.
Gaming 1	0	0	.	.	.
Fan_pages 1	1	0.16458	0.12225	1.8122	0.1782
Price \$2	1	0.94288	0.24055	15.3638	<.0001
Price \$3	1	0.91960	0.24530	14.0539	0.0002
Price \$4	1	1.61574	0.27226	35.2180	<.0001
Price \$5	1	-0.84880	0.23561	12.9789	0.0003
Price \$6	0	0	.	.	.
Price \$7	0	0	.	.	.
Price \$8	0	0	.	.	.

The SAS System

	DF	Parameter Estimate	Standard Error	Chi-Square	Pr > ChiSq
Price \$	1	1.61574	0.27226	35.2180	<.0001
Price \$	1	0.94288	0.24055	15.3638	<.0001
Price \$	1	0.91960	0.24530	14.0539	0.0002
Photos_videos	1	0.75263	0.12750	34.8447	<.0001
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Groups	1	0.39628	0.12297	10.3852	0.0013
Like	1	0.23196	0.12224	3.6005	0.0578
Fan_pages	1	0.16458	0.12225	1.8122	0.1782
Status_update	0	0	.	.	.
Notes	0	0	.	.	.
Comments	0	0	.	.	.
Wall_posts	0	0	.	.	.
Private_messages	0	0	.	.	.
Chats	0	0	.	.	.
Events	0	0	.	.	.
Gaming	0	0	.	.	.
Price \$	0	0	.	.	.
Price \$	0	0	.	.	.
Price \$	0	0	.	.	.
Price \$	1	-0.84880	0.23561	12.9789	0.0003

The SAS System

The PHREG Procedure

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	1	1		
Comments	0	0		
	1	1		
Wall_posts	0	0		
	1	1		
Private_messages	0	0		
	1	1		
Chats	0	0		
	1	1		
Groups	0	0		
	1	1		
Newsfeed	0	0		
	1	1		
Like	0	0		
	1	1		
Photos_videos	0	0		
	1	1		

Class Level Information									
Class	Value	Design Variables							
	1	1							
Events	0	0							
	1	1							
Gaming	0	0							
	1	1							
Fan_pages	0	0							
	1	1							
Price	\$1	0	0	0	0	0	0	0	0
	\$2	1	0	0	0	0	0	0	0
	\$3	0	1	0	0	0	0	0	0
	\$4	0	0	1	0	0	0	0	0
	\$5	0	0	0	1	0	0	0	0
	\$6	0	0	0	0	1	0	0	0
	\$7	0	0	0	0	0	1	0	0
	\$8	0	0	0	0	0	0	1	0

Summary of Subjects, Sets, and Chosen and Unchosen Alternatives				
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	DF	Parameter Estimate	Standard Error	Chi-Square	Pr > ChiSq
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Notes 1	0	0	.	.	.
Comments 1	0	0	.	.	.
Wall_posts 1	0	0	.	.	.
Private_messages 1	0	0	.	.	.
Chats 1	0	0	.	.	.
Groups 1	1	0.39628	0.12297	10.3852	0.0013

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Price \$8	0	0	.	.	.

The SAS System

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Notes	0	0	.	.	.
Comments	0	0	.	.	.
Wall_posts	0	0	.	.	.
Private_messages	0	0	.	.	.
Chats	0	0	.	.	.
Events	0	0	.	.	.
Gaming	0	0	.	.	.
Price \$	0	0	.	.	.
Price \$	0	0	.	.	.
Price \$	0	0	.	.	.
Price \$	1	-0.84880	0.23561	12.9789	0.0003