

Brandeis University

Maurice and Marilyn Cohen Center for Modern Jewish Studies

**Under the Chuppah:
Rabbinic Officiation and Intermarriage**

Technical Appendix

Leonard Saxe
Fern Chertok
Graham Wright
Shahar Hecht



Appendix: Regression Models

This Appendix contains the full results of models that predict factors associated with having a sole Jewish officiant at intermarriages or marrying a Jew. This section also presents models that measure the association between various measures of Jewish involvement and being either a) inmarried, b) intermarried, with a sole Jewish officiant (the omitted category), or c) intermarried with some other type of officiant.

All models presented below control for the respondent's gender, Jewish background, and participation in campus Jewish groups (with "no involvement" as the omitted category). Jewish background was measured by an index consisting of the sum of the standardized scores ("z-scores") of four variables: being raised Jewish by religion, being raised Orthodox, hours of formal Jewish education in grades 1 through 12, and a six-point Mokken scale of high school ritual practice. The Mokken scale procedure was used to confirm that the four variables form a single scale with a strong Loevinger's *H* scalability coefficient of 0.72 (Hardouin, Bonnaud-Antignac, & Sébille, 2011).

In addition, the first two models presented here also control for an index of Jewish social engagement in high school (measured by an index consisting of the sum of z-scores to variables measuring the proportion of Jewish friends in high school, attendance of Jewish summer camps, and involvement with Jewish youth groups), and participation in Birthright Israel. The first model, limited to intermarried respondents, also controls for whether the non-Jewish spouses were raised in another religion (as opposed to no religion).

All models are run with weighted data and are limited to respondents not raised Orthodox and who were married to their first spouse at the time of the survey.

Table 1 – Binary logistic regression model of having a sole Jewish officiant (intermarried respondents only)

(running logit on estimation sample)

Survey: Logistic regression

Number of strata	=	34	Number of obs	=	2,702
Number of PSUs	=	2,702	Population size	=	72,086.014
			Subpop. no. obs	=	515
			Subpop. size	=	12,281.55
			Design df	=	2,668
			F(7, 2662)	=	6.54
			Prob > F	=	0.0000

marljoff	Coef.	Linearized Std. Err.	t	P> t	[95% Conf. Interval]
jback	.400511	.0859133	4.66	0.000	.2320476 .5689745
jsocial	.1259992	.0818557	1.54	0.124	-.0345078 .2865063
undrgradjewact3					
At least a little	.7524091	.3205702	2.35	0.019	.1238179 1.381
No bachelor's	.3964647	.6553004	0.61	0.545	-.8884835 1.681413
participant_w5					
1. yes	-.3649142	.2980978	-1.22	0.221	-.9494403 .2196119
female_w5					
1. female	.934514	.2986406	3.13	0.002	.3489236 1.520104
marlrsdrel_w5					
Raised other religion	-.6719771	.3551659	-1.89	0.059	-1.368405 .0244512
_cons	-.7849663	.4368892	-1.80	0.072	-1.641642 .0717095

Table 2 – Binary logistic regression model of marrying a Jew

(running logit on estimation sample)

Survey: Logistic regression

Number of strata	=	34	Number of obs	=	2,670
Number of PSUs	=	2,670	Population size	=	71,185.027
			Subpop. no. obs	=	1,196
			Subpop. size	=	27,331.807
			Design df	=	2,636
			F(6, 2631)	=	13.67
			Prob > F	=	0.0000

	Coef.	Linearized Std. Err.	t	P> t	[95% Conf. Interval]	
marljew						
jback	.1747005	.04742	3.68	0.000	.0817162	.2676848
jsocial	.1928342	.0445532	4.33	0.000	.1054714	.2801971
undrgradjewact3						
At least a little	.598012	.1841039	3.25	0.001	.2370092	.9590148
No bachelor's	.3076706	.3801602	0.81	0.418	-.4377719	1.053113
participant_w5						
1. yes	.427994	.1630935	2.62	0.009	.1081897	.7477982
female_w5						
1. female	-.326089	.1713989	-1.90	0.057	-.6621789	.0100009
_cons	-.0950795	.1913975	-0.50	0.619	-.470384	.2802251

Table 3: Binary logistic regression model of synagogue membership

(running logit on estimation sample)

Survey: Logistic regression

Number of strata	=	34	Number of obs	=	2,664
Number of PSUs	=	2,664	Population size	=	71,091.329
			Subpop. no. obs	=	1,190
			Subpop. size	=	27,238.109
			Design df	=	2,630
			F(6, 2625)	=	14.18
			Prob > F	=	0.0000

	Coef.	Linearized Std. Err.	t	P> t	[95% Conf. Interval]	
binsyn_w5						
marlinmar3						
1. Inmarriage	.2518194	.2780477	0.91	0.365	-.2933949	.7970338
3. Inter-marriage, other off.	-1.8186	.4077955	-4.46	0.000	-2.618232	-1.018967
female_w5						
1. female	-.1276273	.1903477	-0.67	0.503	-.5008737	.245619
jback	.2296511	.0544382	4.22	0.000	.122905	.3363971
undrgradjewact3						
At least a little	.2251115	.2183515	1.03	0.303	-.2030466	.6532696
No bachelor's	.1517737	.4393999	0.35	0.730	-.7098307	1.013378
_cons	-.6137684	.3211376	-1.91	0.056	-1.243476	.0159396

Table 4 – Multinomial logistic regression model of Jewish religious service attendance

(running mlogit on estimation sample)

Survey: Multinomial logistic regression

Number of strata	=	34	Number of obs	=	2,669
Number of PSUs	=	2,669	Population size	=	71,177.073
			Subpop. no. obs	=	1,195
			Subpop. size	=	27,323.853
			Design df	=	2,635
			F(12, 2624)	=	13.12
			Prob > F	=	0.0000

service3_w5		Linearized		t	P> t	[95% Conf. Interval]	
		Coef.	Std. Err.				

1__Never							
marlinmar3							
1. Inmarriage		-.5734179	.3570314	-1.61	0.108	-1.273508	.1266724
3. Inter-marriage, other off.		.7652345	.3481299	2.20	0.028	.0825989	1.44787
female_w5							
1. female		-.2733952	.2097387	-1.30	0.193	-.6846645	.137874
jback		-.3414253	.0524321	-6.51	0.000	-.4442377	-.238613
undrgradjewact3							
At least a little		-.502281	.218091	-2.30	0.021	-.9299279	-.0746341
No bachelor's		-.0749668	.5042054	-0.15	0.882	-1.063645	.9137117
_cons		-1.254454	.36028	-3.48	0.001	-1.960914	-.5479938

2__Monthly		(base outcome)					

3__Monthly__							
marlinmar3							
1. Inmarriage		-.0264653	.3466054	-0.08	0.939	-.7061116	.653181
3. Inter-marriage, other off.		-2.272132	.5853099	-3.88	0.000	-3.419845	-1.124418
female_w5							
1. female		-.3719863	.215744	-1.72	0.085	-.7950311	.0510585
jback		.1786875	.0730191	2.45	0.014	.0355069	.321868
undrgradjewact3							
At least a little		.7731007	.291246	2.65	0.008	.2020066	1.344195
No bachelor's		.8500713	.493728	1.72	0.085	-.1180625	1.818205
_cons		-1.470074	.4228089	-3.48	0.001	-2.299145	-.6410035

Table 5 – Multinomial logistic regression model of having a special meal on Shabbat

(running mlogit on estimation sample)

Survey: Multinomial logistic regression

Number of strata	=	34	Number of obs	=	2,668
Number of PSUs	=	2,668	Population size	=	71,149.195
			Subpop. no. obs	=	1,194
			Subpop. size	=	27,295.974
			Design df	=	2,634
			F(12, 2623)	=	9.48
			Prob > F	=	0.0000

shabbat3_w5		Linearized				
		Coef.	Std. Err.	t	P> t	[95% Conf. Interval]

1__Never						
marlinmar3						
1. Inmarriage		-.3931029	.2788941	-1.41	0.159	-.9399766 .1537708
3. Inter-marriage, other off.		.3921172	.2904618	1.35	0.177	-.1774392 .9616737
female_w5						
1. female		-.0913684	.1870018	-0.49	0.625	-.4580537 .2753169
jback		-.2640911	.0465975	-5.67	0.000	-.3554625 -.1727197
undrgradjewact3						
At least a little		-.3823401	.1945435	-1.97	0.049	-.7638136 -.0008666
No bachelor's		-.8622049	.4589816	-1.88	0.060	-1.762206 .037796
_cons		-.0011193	.3032122	-0.00	0.997	-.5956774 .5934389

2__Sometimes						
(base outcome)						

3__Usually__always						
marlinmar3						
1. Inmarriage		1.322151	.4353546	3.04	0.002	.4684798 2.175823
3. Inter-marriage, other off.		-.6920347	.6368002	-1.09	0.277	-1.940714 .5566445
female_w5						
1. female		-.1302353	.2228013	-0.58	0.559	-.5671186 .3066481
jback		.2053694	.0804407	2.55	0.011	.0476361 .3631027
undrgradjewact3						
At least a little		.1855804	.2760134	0.67	0.501	-.3556446 .7268055
No bachelor's		.6834366	.484809	1.41	0.159	-.2672084 1.634082
_cons		-1.878873	.4982163	-3.77	0.000	-2.855808 -.9019381

Table 6 – Ordinary Least Squares regression model of index of Jewish holiday celebration

(running regress on estimation sample)

Survey: Linear regression

Number of strata	=	34	Number of obs	=	2,671
Number of PSUs	=	2,671	Population size	=	71,212.414
			Subpop. no. obs	=	1,197
			Subpop. size	=	27,359.194
			Design df	=	2,637
			F(6, 2632)	=	50.35
			Prob > F	=	0.0000
			R-squared	=	0.2522

	Linearized					
jhol2_w5	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
marlinmar3						
1. Inmarriage	.5146928	.280345	1.84	0.066	-.0350256	1.064411
3. Inter marriage, other off.	-1.105017	.2901895	-3.81	0.000	-1.674039	-.5359946
female_w5						
1. female	.3326009	.148303	2.24	0.025	.0417988	.623403
jback	.2867465	.042192	6.80	0.000	.2040137	.3694793
undrgradjewact3						
At least a little	.3704551	.1636558	2.26	0.024	.0495483	.6913619
No bachelor's	.8509777	.3738564	2.28	0.023	.1178961	1.584059
_cons	3.993138	.3045198	13.11	0.000	3.396016	4.59026

Table 7 – Binary logistic regression model of keeping Kosher

((running logit on estimation sample)

Survey: Logistic regression

Number of strata	=	34	Number of obs	=	2,671
Number of PSUs	=	2,671	Population size	=	71,212.414
			Subpop. no. obs	=	1,197
			Subpop. size	=	27,359.194
			Design df	=	2,637
			F(6, 2632)	=	13.32
			Prob > F	=	0.0000

		Linearized				
kosherbin_w5		Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
marlinmar3						
1.	Inmarriage	.9367139	.3320816	2.82	0.005	.2855471 1.587881
3.	Intermarriage, other off.	-.5291772	.3977802	-1.33	0.184	-1.30917 .2508156
female_w5						
1.	female	-.1583833	.186841	-0.85	0.397	-.524753 .2079864
	jback	.3061704	.0686093	4.46	0.000	.171637 .4407038
undrgradjewact3						
	At least a little	.705005	.2131069	3.31	0.001	.2871313 1.122879
	No bachelor's	.8442514	.4335574	1.95	0.052	-.0058956 1.694398
	_cons	-1.721363	.3551958	-4.85	0.000	-2.417853 -1.024872

Table 8 – Multinomial logistic regression model of talking to friends and family about Judaism

(running mlogit on estimation sample)

Survey: Multinomial logistic regression

Number of strata	=	34	Number of obs	=	2,666
Number of PSUs	=	2,666	Population size	=	71,150.002
			Subpop. no. obs	=	1,192
			Subpop. size	=	27,296.781
			Design df	=	2,632
			F(12, 2621)	=	9.66
			Prob > F	=	0.0000

		Linearized				
jtalkjud_w5		Coef.	Std. Err.	t	P> t	[95% Conf. Interval]

1__never						
marlinmar3						
1. Inmarriage		-.0051321	.5410848	-0.01	0.992	-1.066127 1.055862
3. Inter-marriage, other off.		1.082004	.5251665	2.06	0.039	.052223 2.111785
female_w5						
1. female		-.6888832	.3243002	-2.12	0.034	-1.324792 -.052974
jback		-.2454818	.0779596	-3.15	0.002	-.3983501 -.0926135
undrgradjewact3						
At least a little		-.058921	.3485488	-0.17	0.866	-.7423784 .6245363
No bachelor's		.5570994	.7249194	0.77	0.442	-.8643702 1.978569
_cons		-2.92852	.5533613	-5.29	0.000	-4.013587 -1.843453

2__occasionally						
(base outcome)						

3__often						
marlinmar3						
1. Inmarriage		.581852	.2775066	2.10	0.036	.0376989 1.126005
3. Inter-marriage, other off.		-.6328331	.3382336	-1.87	0.061	-1.296064 .0303975
female_w5						
1. female		-.1540979	.1789502	-0.86	0.389	-.5049951 .1967993
jback		.1848663	.0522673	3.54	0.000	.082377 .2873555
undrgradjewact3						
At least a little		.1186673	.2037981	0.58	0.560	-.2809534 .518288
No bachelor's		.1442993	.3968783	0.36	0.716	-.6339259 .9225244
_cons		-.6931376	.3117111	-2.22	0.026	-1.304361 -.081914

Table 9: Binary logistic regression model of oldest child being raised Jewish by religion
(reshaped child-level dataset)

(running logit on estimation sample)

Survey: Logistic regression

Number of strata	=	1	Number of obs	=	1,212
Number of PSUs	=	1,212	Population size	=	21,910.212
			Subpop. no. obs	=	695
			Subpop. size	=	13,246.606
			Design df	=	1,211
			F(6, 1206)	=	25.16
			Prob > F	=	0.0000

	raisejbr	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	

	marlinmar3						
	1. Inmarriage	1.180303	.4578385	2.58	0.010	.2820586	2.078548
3.	Intermarriage, other off.	-2.953247	.4637523	-6.37	0.000	-3.863094	-2.043399
	parfemale_w5						
	1. female	.7010421	.3426494	2.05	0.041	.0287897	1.373295
	jback	.4444094	.0962952	4.62	0.000	.2554855	.6333333
	undrgradjewact3						
	At least a little	.3308488	.348375	0.95	0.342	-.3526367	1.014334
	No bachelor's	.2539734	.6162896	0.41	0.680	-.9551404	1.463087
	_cons	1.573087	.5191705	3.03	0.002	.5545134	2.591661

Table 10: Multinomial logistic regression model of enrolling oldest child in Jewish day care

(reshaped child-level dataset)
 (running mlogit on estimation sample)

Survey: Multinomial logistic regression

Number of strata	=	1	Number of obs	=	1,210
Number of PSUs	=	1,210	Population size	=	21,851.097
			Subpop. no. obs	=	633
			Subpop. size	=	12,497.871
			Design df	=	1,209
			F(12, 1198)	=	3.09
			Prob > F	=	0.0002

		Linearized						
preschool		Coef.	Std. Err.	t	P> t	[95% Conf. Interval]		

Not_enrolled								
marlinmar3								
1. Inmarriage		.5954279	.4140847	1.44	0.151	-.2169765	1.407832	
3. Intermarriage, other off.		.1862645	.4419802	0.42	0.674	-.680869	1.053398	
parfemale_w5								
1. female		-.094407	.2634457	-0.36	0.720	-.6112687	.4224546	
jback		.0630663	.0656625	0.96	0.337	-.0657588	.1918914	
undrgradjewact3								
At least a little		.220231	.2727318	0.81	0.420	-.3148492	.7553112	
No bachelor's		-.663498	.662098	-1.00	0.316	-1.962487	.6354906	
_cons		-.460826	.4486875	-1.03	0.305	-1.341119	.4194667	

Enrolled_not_Jewish		(base outcome)						

Enrolled_Jewish								
marlinmar3								
1. Inmarriage		.5342725	.4865065	1.10	0.272	-.4202182	1.488763	
3. Intermarriage, other off.		-1.397107	.6849286	-2.04	0.042	-2.740888	-.0533266	
parfemale_w5								
1. female		-.1017125	.2917276	-0.35	0.727	-.6740611	.4706361	
jback		.2241512	.0699859	3.20	0.001	.0868439	.3614584	
undrgradjewact3								
At least a little		.127129	.3126244	0.41	0.684	-.4862177	.7404756	
No bachelor's		-.4582511	.8165657	-0.56	0.575	-2.060294	1.143792	
_cons		-.3158939	.5460401	-0.58	0.563	-1.387185	.7553974	

Table 11: Multinomial logistic regression model of participation in Jewish community activities

(running mlogit on estimation sample)

Survey: Multinomial logistic regression

Number of strata	=	34	Number of obs	=	2,670
Number of PSUs	=	2,670	Population size	=	71,156.609
			Subpop. no. obs	=	1,196
			Subpop. size	=	27,303.389
			Design df	=	2,636
			F(12, 2625)	=	12.56
			Prob > F	=	0.0000

jcultevnt_w5		Linearized					[95% Conf. Interval]	
		Coef.	Std. Err.	t	P> t			
1__never								
marlinmar3								
1. Inmarriage		-1.112136	.2785772	-3.99	0.000	-1.658388	-.5658839	
3. Inter-marriage, other off.		.6608401	.2954993	2.24	0.025	.0814061	1.240274	
female_w5								
1. female		-.2521312	.1914155	-1.32	0.188	-.6274709	.1232086	
jback		-.1702864	.0467857	-3.64	0.000	-.2620268	-.078546	
undrgradjewact3								
At least a little		-.5921237	.2021397	-2.93	0.003	-.9884922	-.1957552	
No bachelor's		-.1469353	.4136011	-0.36	0.722	-.9579509	.6640803	
_cons		.5149724	.3026073	1.70	0.089	-.0783995	1.108344	
2__occasionally		(base outcome)						
3__often								
marlinmar3								
1. Inmarriage		-.0097084	.4015792	-0.02	0.981	-.7971508	.7777341	
3. Inter-marriage, other off.		-1.068987	.6417212	-1.67	0.096	-2.327316	.1893407	
female_w5								
1. female		-.0986101	.231593	-0.43	0.670	-.5527325	.3555124	
jback		.0384949	.0650867	0.59	0.554	-.0891312	.166121	
undrgradjewact3								
At least a little		.1816157	.2962682	0.61	0.540	-.399326	.7625575	
No bachelor's		-.389078	.5599536	-0.69	0.487	-1.487071	.708915	
_cons		-1.043849	.4748404	-2.20	0.028	-1.974947	-.1127514	

Table 12: Binary logistic regression model of consuming Jewish or Israeli cultural content
(running logit on estimation sample)

Survey: Logistic regression

Number of strata	=	34	Number of obs	=	2,670
Number of PSUs	=	2,670	Population size	=	71,176.464
			Subpop. no. obs	=	1,196
			Subpop. size	=	27,323.244
			Design df	=	2,636
			F(6, 2631)	=	5.70
			Prob > F	=	0.0000

		Linearized					[95% Conf. Interval]	
jcult_w5		Coef.	Std. Err.	t	P> t			
marlinmar3								
1. Inmarriage		.2512185	.271592	0.92	0.355	-.2813366	.7837736	
3. Inter-marriage, other off.		-.5591293	.2880392	-1.94	0.052	-1.123935	.0056765	
female_w5								
1. female		.1010583	.1789457	0.56	0.572	-.2498298	.4519465	
	jback	.0812764	.0427568	1.90	0.057	-.0025639	.1651167	
undrgradjewact3								
At least a little		.2234923	.1940731	1.15	0.250	-.1570588	.6040434	
No bachelor's		.8929068	.451637	1.98	0.048	.007308	1.778506	
_cons								
		.6875515	.3008989	2.28	0.022	.0975295	1.277573	

Table 13: Binary logistic regression model of giving to Jewish or Israeli organizations or causes

(running logit on estimation sample)

Survey: Logistic regression

Number of strata	=	34	Number of obs	=	2,474
Number of PSUs	=	2,474	Population size	=	66,277.346
			Subpop. no. obs	=	1,000
			Subpop. size	=	22,424.126
			Design df	=	2,440
			F(6, 2435)	=	21.77
			Prob > F	=	0.0000

		Linearized				
donjewany_w5		Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
marlinmar3						
1.	Inmarriage	.4545845	.2946138	1.54	0.123	-.1231345 1.032303
3.	Intermarriage, other off.	-1.441117	.3421245	-4.21	0.000	-2.112002 -.7702325
female_w5						
1.	female	-.1082892	.1992396	-0.54	0.587	-.4989854 .282407
	jback	.2562271	.0512722	5.00	0.000	.1556856 .3567687
undrgradjewact3						
	At least a little	.5143691	.2102804	2.45	0.015	.1020225 .9267157
	No bachelor's	.5398953	.4543137	1.19	0.235	-.3509851 1.430776
	_cons	.0101509	.3348809	0.03	0.976	-.6465293 .6668311

Table 14: Multinomial logistic regression model of talking to friends and family about Israel

(running mlogit on estimation sample)

Survey: Multinomial logistic regression

Number of strata	=	34	Number of obs	=	2,653
Number of PSUs	=	2,653	Population size	=	70,857.473
			Subpop. no. obs	=	1,179
			Subpop. size	=	27,004.253
			Design df	=	2,619
			F(12, 2608)	=	6.44
			Prob > F	=	0.0000

		Linearized					[95% Conf. Interval]	
jtalkisr_w5		Coef.	Std. Err.	t	P> t			
1__never								
marlinmar3								
1. Inmarriage		-.3220328	.3905231	-0.82	0.410	-1.087798	.4437323	
3. Inter-marriage, other off.		.2989519	.3906596	0.77	0.444	-.4670809	1.064985	
female_w5								
1. female		.1425614	.2528365	0.56	0.573	-.3532181	.6383408	
	jback	.0568378	.0646795	0.88	0.380	-.0699903	.1836659	
undrgradjewact3								
At least a little		-.330178	.2628073	-1.26	0.209	-.8455089	.1851529	
No bachelor's		.2690241	.5587751	0.48	0.630	-.8266613	1.36471	
	_cons	-1.464733	.3774089	-3.88	0.000	-2.204783	-.7246827	
2__occasionally		(base outcome)						
3__often								
marlinmar3								
1. Inmarriage		1.095658	.3327694	3.29	0.001	.4431403	1.748175	
3. Inter-marriage, other off.		-.1042671	.3939167	-0.26	0.791	-.8766865	.6681523	
female_w5								
1. female		-.351321	.1888716	-1.86	0.063	-.7216737	.0190318	
	jback	.2001586	.056687	3.53	0.000	.0890027	.3113145	
undrgradjewact3								
At least a little		-.2905709	.2144664	-1.35	0.176	-.7111116	.1299697	
No bachelor's		.6395323	.4267787	1.50	0.134	-.1973253	1.47639	
	_cons	-.9814665	.3716906	-2.64	0.008	-1.710304	-.2526295	

Reference

Hardouin, J.B., Bonnaud-Antignac, A., & Sébille, V. (2011). Nonparametric item response theory using Stata. *The Stata Journal*, 11(1), 30-51.

The Cohen Center is a multi-disciplinary research institute dedicated to the study of American Jewry and issues related to contemporary Jewish life.

The Steinhardt Social Research Institute (SSRI) develops and conducts quantitative studies of ethnicity and religion in the United States, with a particular focus on Jewish life. SSRI is a component of the Cohen Center for Modern Jewish Studies at Brandeis University.

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Maurice and Marilyn Cohen
Center for Modern Jewish Studies