Financial Hardship and Obesity: The Link between Weight and Household Debt

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April 2013
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Table 1: Cross tabulations of credit card debt and having trouble paying bills

Key
frequency
row percentage
column percentage

Men

Trouble Paying Bills	Credit Card Debt 0	1	Total
0	2,650	1,570	4,220
	62.80	37.2	100
	72.15	67.91	70.51
1	1,023	742	1,765
	57.96	42.04	100
	27.85	32.09	29.49
Total	3,673	2,312	5,985
	61.37	38.63	100
	100	100	100

Women

Trouble Paying Bills	Credit Card Debt 0	1	Total
0	2,491	1,883	4,374
	56.95	43.05	100
	70.23	63.44	67.14
1	1,056	1,085	2,141
	49.32	50.68	100
	29.77	36.56	32.86
Total	3,547	2,968	6,515
	54.44	45.56	100
	100	100	100

Table 2: Sample Means by Gender and Debt Status

	Men							Women						
	All Men	Has trouble paying bills			Has credit card debt			All Women	Has trouble paying bills			Has credit card debt		
Variable		Yes	No	sig?[a]	Yes	No	sig?[a]		Yes	No	sig?[a]	Yes	No	sig?[a]
Wave I variables														
Age in years	22.073	22.196	22.0216	*	22.4442	21.8394	*	21.8761	21.9594	21.8354	*	22.1934	21.6107	*
	(1.7371)	(1.693)	(1.7529)		(1.5684)	(1.7967)		(1.7495)	(1.7195)	(1.7627)		(1.619)	(1.8096)	
Married	.1515	.1609	.1476		.2042	.1184	*	.2206	.2555	.2035	*	.2652	.1833	*
Income is between $1 and $7	.1482	.1598	.1434		.1202	.1658	*	.2098	.2139	.2078		.1769	.2374	*
Income is between $8 and $3,900	.1642	.1637	.1645	*	.1337	.1835	*	.1986	.1952	.2003		.1715	.2213	*
Income is between $4,000 and $11,700	.1766	.1909	.1706	*	.1466	.1955	*	.1972	.2172	.1875	*	.1917	.2019	
Income is between $12,000 and $20,100	.2179	.2408	.2083	*	.2431	.202	*	.2066	.22	.2	*	.2419	.1771	*
Income is between $20,352 and $500,909	.2496	.2091	.2666		.3253	.202	*	.1521	.1196	.168	*	.1924	.1184	*
Gambled for $	.6501	.6635	.6445		.7145	.6096	*	.5283	.5297	.5277		.6061	.4632	*
Has a savings account	.6316	.5331	.6727	*	.6704	.6071	*	.655	.5441	.7092	*	.6705	.642	*
Purchased a lottery ticket	.6438	.6742	.631	*	.7184	.5968	*	.5919	.624	.5761	*	.6685	.5278	*
Religious	1.3054	1.2425	1.3318	*	1.2794	1.3218	*	1.4685	1.4176	1.4934	*	1.4592	1.4762	
Black	.2027	.2204	.1953	*	.1773	.2186	*	.2339	.2662	.2181	*	.2389	.2298	
Other race	.1226	.1099	.128	*	.1133	.1285	*	.1038	.0883	.1113	*	.1065	.1015	
Hispanic	.1559	.1428	.1614	*	.1856	.1372	*	.1409	.1425	.1401		.1577	.1269	*
Wave III variables														
BMI wave I	22.8226	22.8721	22.8019		23.013	22.7027	*	22.2602	22.8823	21.9556	*	22.5676	22.0029	*
	(4.4565)	(4.5648)	(4.4107)		(4.3427)	(4.5231)		(4.4224)	(4.7247)	(4.234)		(4.4043)	(4.4217)	
Drank in past 30 days	.1123	.1212	.1085		.1185	.1084		.07	.0803	.0649	*	.0681	.0716	
Thinks smart	.5714	.5411	.5841	*	.609	.5478	*	.5625	.5241	.5814	*	.596	.5345	*

compared to others														
Likely to go to college	.4992	.4204	.5322	*	.5095	.4928		.6281	.532	.6751	*	.6533	.607	*
Usual hours of work in summer	16.7858	17.5915	16.4488	*	19.5017	15.0762	*	13.3962	13.8893	13.1548	*	15.4693	11.6614	*
	(18.2949)	(18.5463)	(18.1804)		(18.4164)	(18.0117)		(16.0522)	(16.4791)	(15.8354)		(16.8134)	(15.1726)	
Dad is not working	.0379	.0487	.0334	*	.0389	.0373		.0353	.0458	.0302	*	.032	.0381	
Dad's job is other than management/prof.	.5305	.502	.5424	*	.5329	.529		.5008	.4647	.5185	*	.5142	.4897	*
Smoked in high school	.1906	.255	.1637	*	.1972	.1865		.188	.255	.1552	*	.191	.1855	
Parent had some college	.2017	.2079	.1991		.2245	.1873	*	.2153	.2214	.2124		.2449	.1906	*
Parent is high school graduate	.2775	.2997	.2682	*	.2612	.2878	*	.2769	.3143	.2586	*	.2716	.2814	
Parent's education is less than High school	.0911	.1014	.0867	*	.0878	.0931		.1065	.1308	.0947	*	.0947	.1164	*
Parent received welfare	.0909	.132	.0737	*	.0753	.1007	*	.0995	.1387	.0802	*	.0805	.1153	*
Parent smoked	.2267	.2669	.21	*	.2219	.2298		.2398	.2971	.2117	*	.2369	.2422	
Mother is obese	.1532	.1575	.1514		.1579	.1503		.1558	.1714	.1481	*	.1651	.148	*
Mother was a binge drinker	.1031	.115	.0981	*	.099	.1056		.101	.1163	.0935	*	.1024	.0998	
Mother breastfed	.3733	.3473	.3841	*	.375	.3722		.3655	.341	.3775	*	.3679	.3634	
High school GPA	2.6833	2.5632	2.7335	*	2.7178	2.6615	*	2.9023	2.7529	2.9754	*	2.9208	2.8867	*
	(.7724)	(.7674)	(.7691)		(.7462)	(.7878)		(.7506)	(.7436)	(.7433)		(.7112)	(.7818)	
Stolen from a store	.2765	.3303	.254	*	.2989	.2625	*	.2104	.2522	.19	*	.2156	.2061	
Observations	5985	1765	4220		2312	3673		6515	2141	4374		2968	3547	

Standard deviations in parentheses

Note: Income is total personal income before taxes measured in $.

[a] indicates significant at the 10% level or greater.

Table 3a: OLS Models of the Effect of Having Credit Card Debt on Body Weight

VARIABLES	Men BMI	Men Overweight/obese	Men Obese	Women BMI	Women Overweight/Obese	Women Obese
Wave III Variables						
Has credit card debt	0.135	0.028**	0.004	-0.018	-0.002	-0.003
	(0.091)	(0.011)	(0.008)	(0.100)	(0.010)	(0.008)
Impulsive	0.071	-0.004	0.012	0.151	-0.008	0.007
	(0.095)	(0.012)	(0.008)	(0.114)	(0.011)	(0.009)
BMI_1994	0.886***	0.060***	0.053***	1.051***	0.062***	0.053***
	(0.015)	(0.001)	(0.001)	(0.016)	(0.001)	(0.001)
Volunteer				0.257**	-0.002	0.012
				(0.111)	(0.011)	(0.009)
Age	-0.219***	-0.013***	-0.018***	-0.184***	-0.010***	-0.011***
	(0.032)	(0.004)	(0.003)	(0.034)	(0.003)	(0.003)
Married	0.654***	0.055***	0.037***	1.376***	0.123***	0.064***
	(0.138)	(0.016)	(0.013)	(0.134)	(0.013)	(0.011)
Inc. btw $1 -$7	0.395	0.018	0.032	0.573*	0.038	0.039*
	(0.260)	(0.031)	(0.022)	(0.307)	(0.028)	(0.021)
Inc. btw $8-$3900	0.254	-0.009	0.025	0.827***	0.073**	0.047**
	(0.253)	(0.031)	(0.021)	(0.309)	(0.028)	(0.022)
Inc. btw $4000-$11700	0.066	-0.035	0.031	0.669**	0.048*	0.044**
	(0.253)	(0.031)	(0.021)	(0.309)	(0.028)	(0.022)
Inc. btw $12000-$20100	0.116	-0.023	0.008	0.738**	0.061**	0.043**
	(0.248)	(0.030)	(0.021)	(0.308)	(0.028)	(0.022)
Income missing	0.275	0.017	0.022	0.712**	0.046	0.052**
	(0.247)	(0.030)	(0.021)	(0.314)	(0.029)	(0.022)
Gamble	0.198*	0.021	-0.013	0.151	-0.010	-0.007
	(0.104)	(0.013)	(0.009)	(0.109)	(0.011)	(0.008)
Has savings account	0.078	0.022*	-0.014*	-0.315***	-0.022**	-0.012
	(0.096)	(0.012)	(0.009)	(0.110)	(0.011)	(0.008)
Lottery	0.304***	0.016	0.028***	0.100	0.033***	0.003
	(0.102)	(0.013)	(0.009)	(0.110)	(0.011)	(0.008)
Religious	0.116**	0.016***	0.008*	0.115**	0.007	0.004
	(0.048)	(0.006)	(0.004)	(0.056)	(0.006)	(0.004)
Black	0.244*	-0.011	0.016	0.387***	0.071***	0.001
	(0.132)	(0.016)	(0.012)	(0.148)	(0.014)	(0.011)
Other race	0.234	0.000	0.021	-0.173	-0.021	0.005
	(0.151)	(0.018)	(0.013)	(0.158)	(0.016)	(0.012)
Hispanic	0.366***	0.045***	-0.001	0.120	0.039**	-0.000
	(0.141)	(0.017)	(0.013)	(0.157)	(0.016)	(0.013)
Wave I Variables						
Drank in past 30 days	-0.009	0.021	-0.004	-0.059	0.003	-0.005
	(0.145)	(0.018)	(0.014)	(0.214)	(0.021)	(0.015)
Thinks smart compared to others	0.064	0.007	0.003	0.039	-0.007	0.005
	(0.100)	(0.012)	(0.009)	(0.114)	(0.011)	(0.009)
Likely to go to college	0.066	0.011	0.000	0.066	0.013	-0.005

	(0.099)	(0.012)	(0.009)	(0.118)	(0.012)	(0.009)
Usual summer work hrs	0.005*	0.000	0.000	-0.003	0.000	-0.000
	(0.003)	(0.000)	(0.000)	(0.003)	(0.000)	(0.000)
Dad unemployed	-0.068	0.016	0.007	0.697**	0.104***	0.026
	(0.265)	(0.032)	(0.024)	(0.314)	(0.030)	(0.025)
Dad job unknown	-0.015	-0.015	0.015	0.064	0.049***	-0.003
	(0.146)	(0.018)	(0.013)	(0.160)	(0.016)	(0.012)
Dad job other than manag/prof	0.187	0.020	0.023**	0.031	0.036***	-0.009
	(0.119)	(0.016)	(0.011)	(0.132)	(0.014)	(0.010)
Smoked in HS	-0.207*	-0.019	0.006	-0.493***	-0.023	-0.029**
	(0.119)	(0.015)	(0.011)	(0.144)	(0.014)	(0.011)
Parent has some college	-0.236*	-0.002	-0.020*	0.013	0.021	-0.003
	(0.123)	(0.015)	(0.011)	(0.135)	(0.014)	(0.011)
Parent educ. HS graduate	-0.017	0.006	-0.013	0.324**	0.055***	0.023**
	(0.122)	(0.015)	(0.011)	(0.140)	(0.014)	(0.011)
Parent educ. less than HS	-0.032	0.040*	-0.008	0.156	0.019	0.021
	(0.193)	(0.023)	(0.017)	(0.205)	(0.020)	(0.016)
Parent educ. unknown	0.142	0.021	0.021	-0.646*	-0.019	-0.005
	(0.300)	(0.035)	(0.026)	(0.373)	(0.034)	(0.027)
Parent on welfare	-0.030	-0.016	-0.027*	0.156	-0.011	0.024
	(0.176)	(0.020)	(0.015)	(0.207)	(0.018)	(0.016)
Parent smoked	-0.076	-0.019	0.006	0.250*	0.020	0.020*
	(0.117)	(0.014)	(0.010)	(0.132)	(0.013)	(0.011)
Mom obese	0.807***	0.032**	0.057***	0.791***	0.048***	0.047***
	(0.139)	(0.015)	(0.013)	(0.159)	(0.015)	(0.013)
Mom binge drank	0.050	0.006	-0.009	-0.006	-0.002	-0.005
	(0.151)	(0.018)	(0.013)	(0.181)	(0.017)	(0.013)
Mom binge not known	-0.285	-0.034	-0.025	-0.201	-0.012	-0.043**
	(0.217)	(0.027)	(0.019)	(0.220)	(0.023)	(0.019)
Mom breast fed	-0.175*	-0.035***	-0.012	-0.054	0.003	-0.010
	(0.100)	(0.012)	(0.009)	(0.111)	(0.011)	(0.009)
Mom breast fed unknown	0.228	0.034	0.027	0.299	0.009	0.058***
	(0.210)	(0.026)	(0.018)	(0.221)	(0.023)	(0.019)
GPA	-0.076	-0.012	-0.004	-0.270***	-0.023***	-0.017***
	(0.066)	(0.008)	(0.006)	(0.084)	(0.008)	(0.006)
Took something from store w/o	-0.258***	-0.013	-0.011	-0.255**	-0.034***	-0.014
paying for it	(0.099)	(0.012)	(0.009)	(0.122)	(0.012)	(0.009)
Constant	9.691***	-0.624***	-0.690***	5.320***	-0.833***	-0.774***
	(0.772)	(0.092)	(0.067)	(0.864)	(0.084)	(0.066)
Observations	5,985	5,985	5,985	6,515	6,515	6,515
R-squared	0.590	0.311	0.386	0.609	0.370	0.397

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Benchmark categories: father’s job is managerial/professional, income is unknown, parent’s highest level of education is college or more.

Table 3b: OLS Models of the Effect of Having Trouble Paying Bills on Body Weight

VARIABLES	Men BMI	Men Overweight/ Obese	Men Obese	Women BMI	Women Overweight/ Obese	Women Obese
Wave III Variables						
Has trouble paying bills	-0.064	-0.043***	0.000	0.374***	0.024**	0.024***
	(0.103)	(0.012)	(0.009)	(0.112)	(0.011)	(0.009)
Impulsive	0.078	-0.002	0.011	0.130	-0.011	0.006
	(0.096)	(0.012)	(0.008)	(0.114)	(0.011)	(0.009)
BMI_1994	0.886***	0.060***	0.053***	1.049***	0.061***	0.053***
	(0.015)	(0.001)	(0.001)	(0.016)	(0.001)	(0.001)
Has a credit card	0.184*	0.034***	-0.004	-0.167	-0.032***	-0.011
	(0.099)	(0.012)	(0.009)	(0.117)	(0.011)	(0.009)
Volunteer				0.258**	-0.001	0.012
				(0.110)	(0.011)	(0.009)
Age	-0.219***	-0.012***	-0.017***	-0.183***	-0.010***	-0.011***
	(0.032)	(0.004)	(0.003)	(0.034)	(0.003)	(0.003)
Married	0.662***	0.058***	0.038***	1.357***	0.123***	0.063***
	(0.138)	(0.016)	(0.013)	(0.133)	(0.013)	(0.011)
Inc. btw $1 -$7	0.427	0.026	0.032	0.555*	0.036	0.038*
	(0.262)	(0.031)	(0.022)	(0.308)	(0.028)	(0.022)
Inc. btw $8-$3900	0.274	-0.004	0.025	0.814***	0.071**	0.046**
	(0.254)	(0.031)	(0.021)	(0.310)	(0.028)	(0.022)
Inc. btw $4000-$11700	0.095	-0.026	0.031	0.638**	0.045	0.042*
	(0.255)	(0.031)	(0.022)	(0.310)	(0.028)	(0.022)
Inc. btw $12000-$20100	0.144	-0.015	0.008	0.729**	0.061**	0.042*
	(0.249)	(0.030)	(0.021)	(0.309)	(0.028)	(0.022)
Income missing	0.278	0.017	0.023	0.743**	0.050*	0.053**
	(0.247)	(0.030)	(0.021)	(0.315)	(0.029)	(0.022)
Gamble	0.196*	0.021	-0.013	0.161	-0.008	-0.007
	(0.104)	(0.013)	(0.009)	(0.109)	(0.011)	(0.008)
Has savings account	0.044	0.013	-0.013	-0.244**	-0.014	-0.007
	(0.097)	(0.012)	(0.009)	(0.111)	(0.011)	(0.009)
Lottery	0.311***	0.018	0.029***	0.090	0.033***	0.002
	(0.102)	(0.013)	(0.009)	(0.110)	(0.011)	(0.008)
Religious	0.114**	0.015**	0.008*	0.119**	0.007	0.004
	(0.048)	(0.006)	(0.004)	(0.056)	(0.006)	(0.004)
Black	0.263**	-0.006	0.016	0.357**	0.068***	-0.001
	(0.132)	(0.016)	(0.012)	(0.148)	(0.014)	(0.011)
Other race	0.224	-0.002	0.021	-0.162	-0.020	0.005
	(0.152)	(0.018)	(0.013)	(0.157)	(0.016)	(0.012)
Hispanic	0.362**	0.043***	0.000	0.134	0.042***	0.000
	(0.141)	(0.017)	(0.013)	(0.156)	(0.016)	(0.013)
Wave I Variables						
Drank in past 30 days	-0.017	0.019	-0.004	-0.056	0.003	-0.005
	(0.145)	(0.018)	(0.014)	(0.214)	(0.021)	(0.015)
Thinks smart compared to others	0.064	0.007	0.003	0.038	-0.007	0.005
	(0.099)	(0.012)	(0.009)	(0.114)	(0.011)	(0.009)
Likely to go to college	0.052	0.007	0.000	0.099	0.016	-0.003

	(0.099)	(0.012)	(0.009)	(0.119)	(0.012)	(0.009)
Usual summer work hrs	0.004	0.001	0.000	-0.003	0.000	-0.000
	(0.003)	(0.000)	(0.000)	(0.003)	(0.000)	(0.000)
Dad unemployed	-0.054	0.020	0.007	0.656**	0.100***	0.023
	(0.265)	(0.032)	(0.024)	(0.315)	(0.030)	(0.025)
Dad job unknown	0.003	-0.011	0.015	0.027	0.046***	-0.006
	(0.146)	(0.018)	(0.013)	(0.160)	(0.016)	(0.012)
Dad job other than manag/prof	0.195	0.021	0.023**	0.019	0.035**	-0.009
	(0.119)	(0.016)	(0.011)	(0.132)	(0.014)	(0.010)
Smoked in HS	-0.194	-0.014	0.006	-0.533***	-0.027*	-0.031***
	(0.119)	(0.015)	(0.011)	(0.144)	(0.014)	(0.011)
Parent has some college	-0.227*	0.000	-0.020*	0.011	0.021	-0.003
	(0.123)	(0.015)	(0.011)	(0.135)	(0.014)	(0.011)
Parent educ. HS graduate	-0.014	0.007	-0.014	0.313**	0.054***	0.022**
	(0.122)	(0.015)	(0.011)	(0.140)	(0.014)	(0.011)
Parent educ. less than HS	-0.023	0.042*	-0.009	0.131	0.015	0.020
	(0.193)	(0.023)	(0.017)	(0.205)	(0.020)	(0.016)
Parent educ. unknown	0.143	0.021	0.021	-0.647*	-0.021	-0.004
	(0.300)	(0.035)	(0.026)	(0.373)	(0.034)	(0.027)
Parent on welfare	-0.024	-0.012	-0.028*	0.124	-0.015	0.022
	(0.176)	(0.020)	(0.015)	(0.207)	(0.018)	(0.016)
Parent smoked	-0.072	-0.017	0.006	0.228*	0.018	0.018*
	(0.117)	(0.014)	(0.010)	(0.132)	(0.013)	(0.011)
Mom obese	0.811***	0.033**	0.057***	0.783***	0.047***	0.046***
	(0.139)	(0.015)	(0.013)	(0.158)	(0.015)	(0.013)
Mom binge drank	0.051	0.006	-0.009	-0.009	-0.003	-0.006
	(0.151)	(0.018)	(0.013)	(0.180)	(0.017)	(0.013)
Mom binge not known	-0.287	-0.035	-0.025	-0.212	-0.013	-0.044**
	(0.217)	(0.027)	(0.019)	(0.221)	(0.023)	(0.019)
Mom breast fed	-0.175*	-0.035***	-0.012	-0.065	0.002	-0.011
	(0.100)	(0.012)	(0.009)	(0.111)	(0.011)	(0.009)
Mom breast fed unknown	0.226	0.033	0.027	0.293	0.008	0.057***
	(0.210)	(0.026)	(0.018)	(0.221)	(0.023)	(0.019)
GPA	-0.090	-0.015*	-0.004	-0.250***	-0.020**	-0.016**
	(0.066)	(0.008)	(0.006)	(0.083)	(0.008)	(0.006)
Took something from store w/o	-0.254***	-0.010	-0.011	-0.269**	-0.035***	-0.015
paying for it	(0.099)	(0.012)	(0.009)	(0.122)	(0.012)	(0.009)
Constant	9.671***	-0.629***	-0.693***	5.261***	-0.836***	-0.777***
	(0.768)	(0.091)	(0.066)	(0.863)	(0.084)	(0.066)
Observations	5,985	5,985	5,985	6,515	6,515	6,515
R-squared	0.590	0.313	0.386	0.609	0.371	0.397

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. See notes to Appendix Table 2a.

Table 4a: Propensity Score Models for Credit Card Debt

Men Credit Card Debt									
VARIABLES	OLS	Nearest Neighbor	*k* nearest neighbor	Within Caliper .001	Within Caliper .0001	Within Caliper .00005	Kernel bw.06	LLR bw .18	Radius caliper .001
BMI	0.134	0.188	0.280	0.189	0.179	0.268	0.176	0.132	0.268*
	(0.091)	(0.192)	(0.171)	(0.207)	(0.236)	(0.294)	(0.150)	(0.140)	(0.146)
Obese	0.004	0.007	0.013	0.008	0.009	0.014	0.005	0.002	0.013
	(0.008)	(0.014)	(0.013)	(0.016)	(0.018)	(0.022)	(0.012)	(0.011)	(0.011)
Overweight/obese	0.028**	0.043**	0.036**	0.041**	0.037	0.038	0.033**	0.031**	0.037**
	(0.011)	(0.019)	(0.017)	(0.020)	(0.023)	(0.028)	(0.015)	(0.013)	(0.015)
On common support		5,981	5,981	5,939	5,277	4,789	5,981	5,981	5,939
Observations	5,985	5,985	5,985	5,985	5,985	5,985	5,985	5,985	5,985

Women Credit Card Debt									
VARIABLES	OLS	Nearest Neighbor	*k* nearest neighbor	Within Caliper .001	Within Caliper .0001	Within Caliper .00005	Kernel bw.06	LLR bw .18	Radius caliper .001
BMI	-0.018	0.219	0.190	0.158	0.205	0.182	0.101	0.070	0.067
	(0.100)	(0.227)	(0.198)	(0.221)	(0.286)	(0.343)	(0.165)	(0.169)	(0.184)
Obese	-0.003	0.007	0.010	0.006	0.002	-0.007	0.001	-0.001	-0.001
	(0.008)	(0.015)	(0.013)	(0.014)	(0.018)	(0.021)	(0.010)	(0.011)	(0.012)
Overweight/obese	-0.002	0.011	0.006	0.009	0.005	0.008	0.005	0.003	0.004
	(0.010)	(0.018)	(0.016)	(0.018)	(0.023)	(0.027)	(0.013)	(0.013)	(0.014)
On common support		6,515	6,515	6,469	5,500	4,822	6,515	6,515	6,469
Observations	6,515	6,515	6,515	6,515	6,515	6,515	6,515	6,515	6,515

Standard errors in parentheses*** p<0.01, ** p<0.05, * p<0.1

Table 4b: Propensity Score Models for Trouble Paying Bills

Men Trouble Paying Bills									
VARIABLES	OLS	Nearest Neighbor	*k* nearest neighbor	Within Caliper .001	Within Caliper .0001	Within Caliper .00005	Kernel bw.06	LLR bw .18	Radius caliper .001
BMI	-0.065	0.156	-0.044	0.148	0.155	-0.112	-0.045	-0.010	-0.032
	(0.104)	(0.230)	(0.220)	(0.237)	(0.272)	(0.316)	(0.170)	(0.155)	(0.177)
Obese	0.000	0.018	0.004	0.016	0.018	-0.004	0.004	0.006	0.001
	(0.009)	(0.017)	(0.015)	(0.018)	(0.019)	(0.024)	(0.012)	(0.011)	(0.013)
Overweight/obese	-0.043***	-0.029	-0.035*	-0.029	-0.034	-0.051	-0.041***	-0.036**	-0.042***
	(0.012)	(0.022)	(0.020)	(0.023)	(0.027)	(0.031)	(0.016)	(0.015)	(0.016)
On common support		5,983	5,983	5,938	5,531	5,215	5,983	5,983	5,938
Observations	5,985	5,985	5,985	5,985	5,985	5,985	5,985	5,985	5,985

Women Trouble Paying Bills									
VARIABLES	OLS	Nearest Neighbor	*k* nearest neighbor	Within Caliper .001	Within Caliper .0001	Within Caliper .00005	Kernel bw.06	LLR bw .18	Radius caliper .001
BMI	0.374***	0.382	0.586**	0.393	0.096	-0.093	0.458**	0.443**	0.379*
	(0.112)	(0.253)	(0.229)	(0.253)	(0.291)	(0.353)	(0.198)	(0.198)	(0.198)
Obese	0.024***	0.018	0.036**	0.019	0.010	-0.003	0.025**	0.024*	0.022*
	(0.009)	(0.016)	(0.015)	(0.016)	(0.020)	(0.022)	(0.013)	(0.012)	(0.013)
Overweight/obese	0.024**	0.016	0.030*	0.023	-0.009	-0.033	0.027*	0.026*	0.028*
	(0.011)	(0.018)	(0.017)	(0.018)	(0.024)	(0.029)	(0.015)	(0.014)	(0.015)
On common support		6,513	6,513	6,458	5,855	5,436	6,513	6,513	6,458
Observations	6,515	6,515	6,515	6,515	6,515	6,515	6,515	6,515	6,515

Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Table 5: Bounds on the OLS estimates given relative correlation restrictions

Panel A: Bounds on has trouble paying bills by weight outcome (Men)

Relative correlation restriction	Overweight/Obese
0.00	-0.043*** (-0.06652, -0.01948)
[0.00, 1.00]	[-.0451, -.0388] (-.0687 , -.00137)
[0.00, 2.00]	[-.0451, -.03151] (-.0687, .0332)
[0.00, 3.00]	[-.0451, -.0231] (-.0687, .0760)
[0.00, 5.00]	$[-\infty, \infty]$ $(-\infty, \infty)$
Other parameter estimates:	
Lambda hat star	4.878
Theta hat star	-.139
Lambda hat (0)	5.14

Panel B: Bounds on has trouble paying bills by weight outcome (Women)

Relative correlation restriction	Overweight/Obese	Obese
0.00	0.024** (0.00244, 0.04556)	0.024*** (0.00636, 0.04164)
[0.00, 1.00]	[-.104, .023] (-.139, .044)	[-.0623, .0238] (-.0895, .0408)
[0.00, 3.00]	[-.505, .023] (-.661, .044)	[-.321, .0238] (-.429 .0408)
[0.00, 5.00]	$[-\infty, \infty]$ $(-\infty, \infty)$	$[-\infty, \infty]$ $(-\infty, \infty)$
Other parameter estimates:		
Lambda hat star	3.66	3.66
Theta hat star	1.21	.871
Lambda hat (0)	.195	.294

Panel C: Bounds on has credit card debt by weight outcome (Men)

Relative correlation restriction	Overweight/Obese
0.00	0.028** (0.00644, .0496)
[0.00, 1.00]	[-.023, .0282] (-.060, .051)
[0.00, 3.00]	[-.181, .0282] (-.307, .051)
[0.00, 5.00]	$[-\infty, \infty]$ $(-\infty, \infty)$
Other parameter estimates:	
Lambda hat star	3.61
Theta hat star	.420
Lambda hat (0)	.583

Intervals in square brackets are the bounds themselves and the intervals in the parentheses are the 95% conservative confidence intervals. Krauth’s procedure limits the number of covariates so the bounds are estimated with the limited set of covariates. However, our OLS estimates indicated when the relative correlation equals zero are of similar size and significance.

Table 6: Rosenbaum Bounds Sensitivity Test

	Overweight/Obese			Obese
e^{γ}	Men Credit Card Debt P-values	Women Trouble paying bills P-values	Men Trouble paying bills P-values	Women Trouble paying bills P-values
γ=1	0.000015	3.30E-16	0.000267	8.90E-16
γ =1.05	0.000567	4.10E-13	7.70E-06	3.20E-13
γ =1.10	0.008622	1.70E-10	1.30E-07	5.00E-11
γ =1.15	0.060929	2.60E-08	1.50E-09	3.80E-09
γ =1.20	0.227138	1.70E-06	1.10E-11	1.60E-07
γ =1.25	0.507065	0.000053	6.20E-14	3.70E-06
γ =1.30	0.241857	0.000838	2.20E-16	0.000053
γ =1.35	0.079483	0.007458	0	0.000492
γ =1.40	0.018257	0.039844	0	0.003125
γ =1.45	0.00298	0.136825	0	0.014125
γ =1.50	0.000354	0.323008	0	0.047268
γ =1.55	0.000031	0.45944	0	0.121515
γ =1.60	2.10E-06	0.24295	0	0.248530
γ =1.65	1.10E-07	0.101405	0	0.418429
γ =1.70	4.70E-09	0.033386	0	0.425380
γ =1.75	1.60E-10	0.008733	0	0.263044
γ =1.80	4.60E-12	0.001836	0	0.142911
γ =1.85	1.10E-13	0.000314	0	0.068256
γ =1.90	2.30E-15	0.000044	0	0.028757
γ =1.95	0	5.20E-06	0	0.010743
γ =2	0	5.20E-07	0	0.003579

These results assess the sensitivity of the kernel matching because this is the matching method most often recommended in the literature (Henry and Yi, 2009)

Table 7: Sensitivity of Treatment effects to unobservable characteristics

	Women		Men	
	Credit Card Debt	Trouble Paying Bills	Credit Card Debt	Trouble Paying Bills
	Estimates under assumption that correlation between unobservables is zero			
ATT	-0.003	0.021**	0.032***	-0.039***
Overweight/Obese	(.009)	(.010)	(.011)	(.012)
ATT	0.000	0.021***		-0.003
Obese	(.008)	(.008)		(.009)
	Estimates assuming selection on observables equals selection on unobservables			
ATT	-0.034***	-0.029***	0.012	-0.037***
Overweight/Obese	(.010)	(.010)	(0.011)	(.012)
ρ	0.0773	0.126	0.0451	-0.0047
ATT	-0.019**	-0.015**		-0.005
Obese	(.008)	(.008)		(.009)
ρ	0.0779	0.142		0.008
	Estimated relative selection assuming no effect of treatment			
ATT/bias Overweight/Obese	0.085	0.152	0.073	-0.016
ATT/bias Obese	0.044	0.099		0.005
Observations	6,515	6,515	5,985	5,985

Standard errors are in parentheses. *** p<0.01, ** p<0.05, * p<0.1
Estimates shown are marginal effects.

Table 8: Bounds on the IV estimates (Nevo and Rosen procedure)

Men overweight/obese bill trouble

Instrument	Lower bound	Upper bound
Parent reported that they had enough money to pay their bills	-1.613	0.8348
Currently lives with their parents	-0.1173	0.1055
Currently receives support from parents	-0.1253	0.0949

Women obese bill trouble

Instrument	Lower bound	Upper bound
Parent reported that they had enough money to pay their bills	-0.3423	0.9976
Currently lives with their parents	-0.0171	0.1997
Currently receives support from parents	-0.0935	0.5914