

# Racial-Ethnic Patterns in Being Credit Constrained:

## A Decomposition Analysis

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Previous research on credit constraints of households, that is, not being able to obtain the amount of credit desired, has shown that minority households are more likely to be constrained than White households. Our analysis shows that in 2004, only 16% of White households but 30% of Hispanic households and 37% of Black households were constrained. A logistic regression showed that Black and Hispanic households were significantly more likely to be credit constrained than White households with similar income, net worth, age, and other characteristics. Decomposition analyses were conducted to obtain additional insights into the relative importance of different factors in accounting for the Black-White and the Hispanic-White differences in credit constraint rates. Differences in household and financial behavior characteristics account for 74% of the differences between Black and White households, and 87% of the differences between Hispanic and White households. Differences in financial behaviors accounted for a third of the Black-White differences but less than 16% of the Hispanic-White differences.

### Introduction

In this study, we use the decomposition technique proposed by Fairlie (2005) to examine the relative importance of compositional factors in explaining two racial/ethnic differentials in credit constraint rates — between Whites and Blacks and between Whites and Hispanics, and investigate what portion of the observed differences can be explained by household and financial behavior characteristics.

We use the 2004 Survey of Consumer Finances (Bucks, Kennickell, & Moore, 2006). The definition of credit constraint is the same as that used by Lyons (2003).

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Table 1 shows logistic regressions for the likelihood of being credit constrained for the entire sample, for Black households only, for White households only, and for Hispanic households only. Table 2 shows the results of the decomposition analysis of the differences between Black and White households based on the entire sample, on the Black sample only, and on the White sample only. Figure 1 shows the relative importance of factors contributing to Black-White differences in credit constraint rates, based on the results for the overall sample in Table 2. Table 3 shows the results of the decomposition analysis of the differences between Hispanic and White households based on the entire sample, on the Hispanic sample only, and on the White sample only. Figure 2 shows the relative importance of factors contributing to Hispanic-White differences in credit constraint rates, based on the results for the overall sample in Table 3.

Differences in household and financial behavior characteristics account for 74% of the differences between Black and White households, and 87% of the differences between Hispanic and White households. Differences in financial behaviors accounted for a third of the Black-White differences but less than 16% of the Hispanic-White differences.

#### **References**

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- Fairlie, R. W. (2005). An extension of the Blinder-Oaxaca decomposition technique to logit and probit models. *Journal of Economic and Social Measurement*, 30 (4), 305-316.
- Lyons, A. C. (2003). How credit access has changed over time for U.S. households. *Journal of Consumer Affairs*, 37 (2), 231-255.

Table 1

Logistic regression results: Effect of racial/ethnic group and other factors on likelihood of being credit constrained, total sample, Black household sample, and Hispanic household sample.

Parameter	Full Sample		Black		White		Hispanic	
	Coeff.	Sig.	Coeff.	Sig.	Coeff.	Sig.	Coeff.	Sig.
Racial/ethnic group, reference category=White								
Black	0.7237	<.0001						
Hispanic	0.3024	0.0497						
Asian/other	0.2499	0.3044						
Age of respondent	-3.9618	<.0001	-3.9839	<.0001	-3.8719	<.0001	-3.6561	0.0081
Highest education of respondent: reference category=high school diploma or GED								
<high school diploma	0.2976	0.0558	-0.1972	0.5647	0.6816	0.0018	0.4329	0.2003
some college	-0.0131	0.9180	0.0792	0.7817	-0.2315	0.1551	0.9280	0.0228
college degree	-0.6911	<.0001	-0.8916	0.0035	-0.7140	<.0001	0.1224	0.7881
Related child under 19 in								
household	0.2441	0.0184	0.4924	0.0348	0.2302	0.0836	0.5046	0.1155
Respondent female	0.1662	0.1009	-0.3661	0.1386	0.3119	0.0153	-0.3427	0.2530
Household status: reference category=non-couple household								
Married couple	-0.4218	0.0002	-0.3504	0.2127	-0.4792	0.0008	0.0264	0.9397
Partner couple	0.1097	0.5015	-0.3806	0.3117	0.1815	0.4134	0.6906	0.0817
Log of household income	-0.0638	0.0283	0.1127	0.0712	-0.1400	0.0002	0.0485	0.7021
Employment status of respondent: reference category=employed for salary/wages								
Respondent self-employed	0.0010	0.9943	0.2108	0.6272	0.0213	0.9013	0.1958	0.6289
Respondent not employed,								
not retired	-0.1296	0.3370	0.1142	0.7077	-0.1082	0.5362	0.0164	0.9662
Respondent retired	-0.5450	0.0309	-0.2149	0.6830	-0.8088	0.0127	0.4246	0.5901
Household income last year compared to usual: reference category=about the same as usual								
Income last year unusually								
high	-0.0884	0.5951	0.3363	0.3926	-0.2560	0.2366	0.4034	0.4181
Income last year unusually								
low	0.1460	0.2026	-0.4322	0.1307	0.2518	0.0831	0.0578	0.8464
Expectations, household income growth: reference category=sure will grow about the same as prices								
Sure income will grow								
faster than prices	-0.0993	0.5346	-0.1749	0.6490	-0.0005	0.9979	0.0276	0.9554
Sure income will grow less								
than prices	0.1890	0.1916	0.0173	0.9617	0.2205	0.2155	0.3609	0.4395

Table 1

Logistic regression results: Effect of racial/ethnic group and other factors on likelihood of being credit constrained, total sample, Black household sample, and Hispanic household sample.

Parameter	Full Sample		Black		White		Hispanic	
	Coeff.	Sig.	Coeff.	Sig.	Coeff.	Sig.	Coeff.	Sig.
Not sure about income								
growth	0.2203	0.0693	0.1674	0.5695	0.2993	0.0495	0.1302	0.7174
Spend > income	0.5863	<.0001	0.5371	0.0394	0.5005	0.0017	1.0656	0.0008
Net worth<0	0.4168	0.0068	0.3641	0.2531	0.4446	0.0268	0.8055	0.0994
Sometime in past year, missed or late with								
payments	0.6876	<.0001	0.1279	0.6705	0.9431	<.0001	0.3330	0.3711
Sometime in past year, 2 months or more late	0.6490	0.0006	1.0315	0.0099	0.4987	0.0382	0.7117	0.2279
Ever filed for bankruptcy	1.2669	<.0001	1.3594	<.0001	1.2520	<.0001	0.7912	0.0852
Likelihood ratio	1075.6640	<.0001	121.3509	<.0001	726.1483	<.0001	53.7686	0.0002
Concordance	85.2		78.5		86.4		73.0	

Table 2 Decomposition of Being Credit Constrained of Black versus White Households, 2004  
SCF

Specification based on the coefficients of three types of samples			
	Full sample	Black	White
White credit constrained	0.1562200	0.1562200	0.1562200
Black credit constrained	0.3684969	0.3684969	0.3684969
Black-White gap	-0.2122769	-0.2122769	-0.2122769
Contributions of individual variable			
Age of respondent	-0.0275220	-0.0521985	-0.0251421
percentage	12.97%	24.59%	11.84%
standard error	0.0036844	0.0138784	0.0043460
Education of respondent	-0.0170282	-0.0400634	-0.0205865
percentage	8.02%	18.87%	9.70%
standard error	0.0027796	0.0134667	0.0037518
Related child under 19	-0.0023726	-0.0058890	-0.0022618
percentage	1.12%	2.77%	1.07%
standard error	0.0010656	0.0028860	0.0013832
Respondent female	-0.0034705	0.0164588	-0.0059416
percentage	1.63%	-7.75%	2.80%
standard error	0.0021354	0.0109550	0.0025004
Couple households	-0.0173188	-0.0212266	-0.0189695
percentage	8.16%	10.00%	8.94%
standard error	0.0044234	0.0190713	0.0053615
Log of income	-0.0107320	0.0338807	-0.0222336
percentage	5.06%	-15.96%	10.47%
standard error	0.0047651	0.0185759	0.0056262
Employment status of respondent	-0.0029498	0.0049957	-0.0037412
percentage	1.39%	-2.35%	1.76%
standard error	0.0041244	0.0190034	0.0049834
Income compared to usual	-0.0000821	0.0034941	-0.0001657
percentage	0.04%	-1.65%	0.08%
standard error	0.0002060	0.0026165	0.0002689
Income growth	-0.0040874	-0.0053692	-0.0054899
percentage	1.93%	2.53%	2.59%

Table 2 Decomposition of Being Credit Constrained of Black versus White Households, 2004  
SCF

Specification based on the coefficients of three types of samples			
	Full sample	Black	White
standard error	0.0025434	0.0063433	0.0030927
Spend more than income	-0.0122143	-0.0134685	-0.0098976
percentage	5.75%	6.34%	4.66%
standard error	0.0026269	0.0067029	0.0033196
Negative net worth	-0.0072709	-0.0067670	-0.0078049
percentage	3.43%	3.19%	3.68%
standard error	0.0027992	0.0060735	0.0037001
Late with payments	-0.0212658	-0.0046498	-0.0307642
percentage	10.02%	2.19%	14.49%
standard error	0.0044192	0.0109705	0.0060124
2 months or more late	-0.0135104	-0.0193154	-0.0108484
percentage	6.36%	9.10%	5.11%
standard error	0.0039312	0.0074514	0.0052492
Ever filed for bankruptcy	-0.0164435	-0.0269469	-0.0177420
percentage	7.75%	12.69%	8.36%
standard error	0.0023463	0.0060975	0.0028660
Overall explained difference	-0.1562683	-0.1370650	-0.1815890
percentage	73.62%	64.57%	85.54%
Unexplained difference	-0.0560086	-0.0752119	-0.0306879
percentage	26.38%	35.43%	14.46%

**Table 3 Decomposition of Being Credit Constrained of Hispanic versus White Households, 2004 SCF**

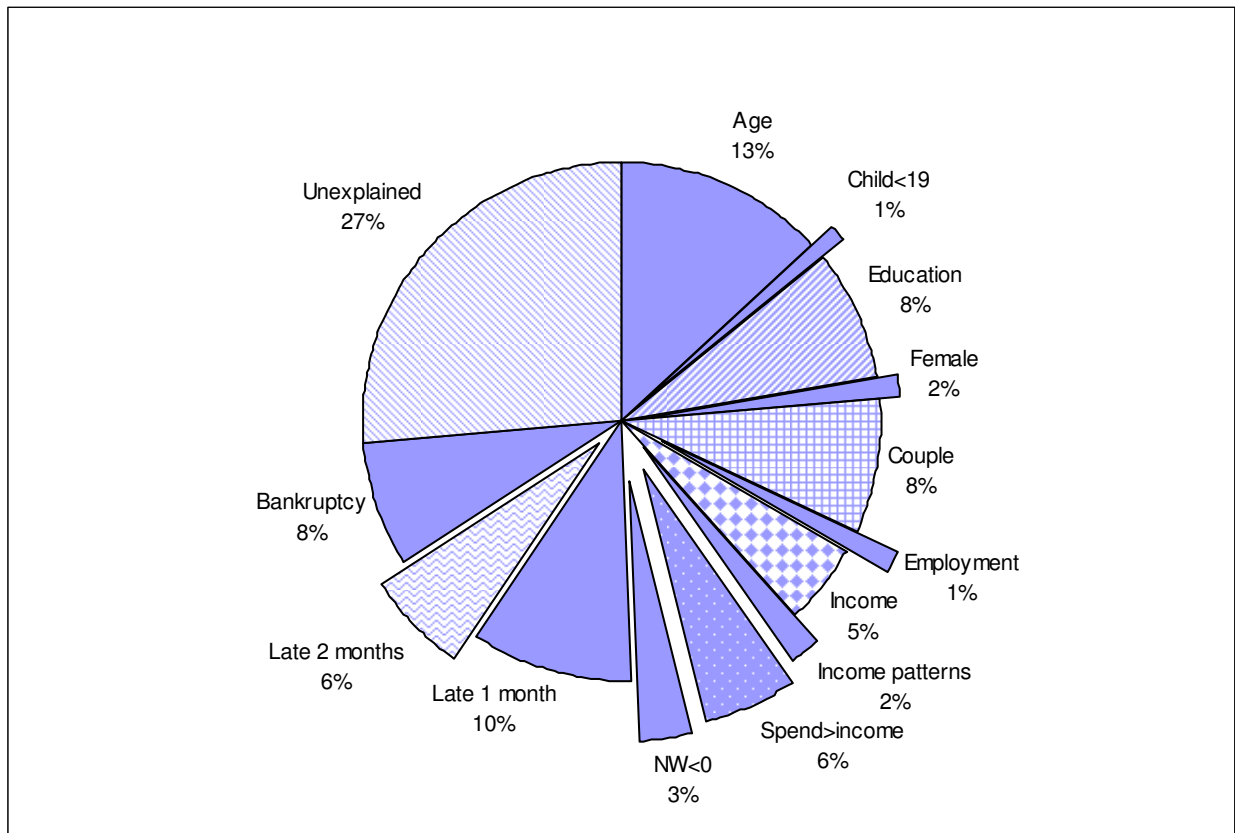
Specification based on the coefficients of three types of samples			
	Full sample	Hispanic	White
White credit constrained	0.1562200	0.1562200	0.1562200
Hispanic credit constrained	0.3004984	0.3004984	0.3004984
Hispanic-White gap	-0.1442784	-0.1442784	-0.1442784
Contributions of individual variable			
Age of respondent	-0.0355830	-0.0566008	-0.0322676
percentage	24.66%	39.23%	22.36%
standard error	0.0045611	0.0243173	0.0052794
Education of respondent	-0.0361549	-0.0134336	-0.0570935
percentage	25.06%	9.31%	39.57%
standard error	0.0073883	0.0266422	0.0111238
Related child under 19	-0.0071576	-0.0201710	-0.0062452
percentage	4.96%	13.98%	4.33%
standard error	0.0030947	0.0127550	0.0036670
Respondent female	-0.0009722	0.0063177	-0.0017606
percentage	0.67%	-4.38%	1.22%
standard error	0.0006212	0.0055469	0.0008228
Couple households	-0.0081223	-0.0137387	-0.0097074
percentage	5.63%	9.52%	6.73%
standard error	0.0031338	0.0074757	0.0041545
Log of income	-0.0077057	0.0097368	-0.0166306
percentage	5.34%	-6.75%	11.53%
standard error	0.0033376	0.0263566	0.0044117
Employment status of respondent	-0.0051858	0.0139376	-0.0070672
percentage	3.59%	-9.66%	4.90%
standard error	0.0040219	0.0224146	0.0049500
Income compared to usual	-0.0018590	0.0024378	-0.0040543
percentage	1.29%	-1.69%	2.81%
standard error	0.0012759	0.0052705	0.0018293
Income growth	-0.0061818	-0.0007362	-0.0079120

**Table 3 Decomposition of Being Credit Constrained of Hispanic versus White Households, 2004 SCF**

Specification based on the coefficients of three types of samples			
	Full sample	Hispanic	White
percentage	4.28%	0.51%	5.48%
standard error	0.0034028	0.0093775	0.0043862
Spend more than income	-0.0092018	-0.0190626	-0.0079995
percentage	6.38%	13.21%	5.54%
standard error	0.0020377	0.0061355	0.0027535
Negative net worth	-0.0024937	-0.0053580	-0.0024437
percentage	1.73%	3.71%	1.69%
standard error	0.0010089	0.0038438	0.0012121
Late with payments	-0.0082620	-0.0050358	-0.0116977
percentage	5.73%	3.49%	8.11%
standard error	0.0017651	0.0058200	0.0024627
2 months or more late	-0.0027735	-0.0043209	-0.0021598
percentage	1.92%	2.99%	1.50%
standard error	0.0008285	0.0038454	0.0010784
Ever filed for bankruptcy	0.0064649	0.0032563	0.0047335
percentage	-4.48%	-2.26%	-3.28%
standard error	0.0007921	0.0011588	0.0011204
Overall explained difference	-0.1251884	-0.1027714	-0.1623056
percentage	86.77%	71.23%	112.49%
Unexplained difference	-0.0190900	-0.0415070	0.0180272
percentage	13.23%	28.77%	-12.49%

**Figure 1**

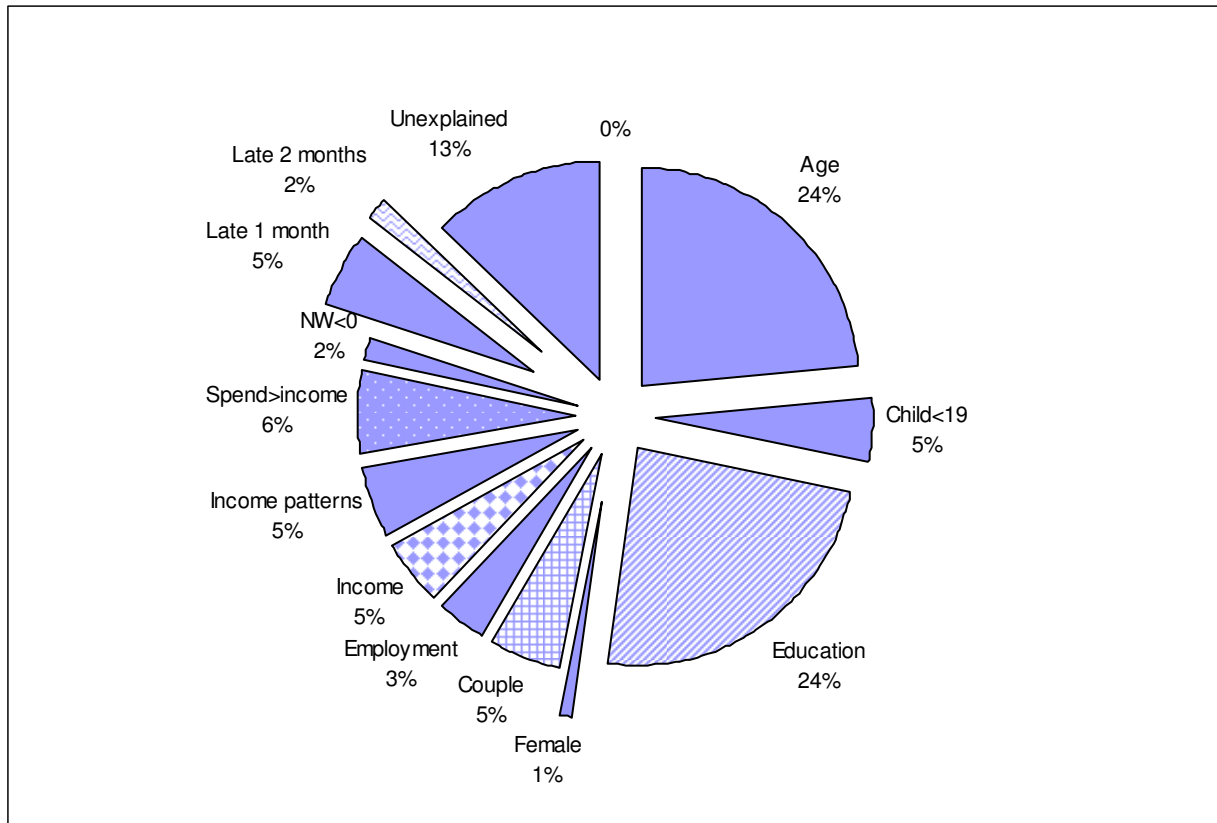
Decomposition of Black-White Credit Constraint Differences in 2004 Based on Overall Sample.



Based on Table 2 results, full sample.

**Figure 2**

Decomposition of Hispanic-White Credit Constraint Differences in 2004 Based on Overall Sample.



Based on Table 3 results, full sample.