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Are There Differences in Household Borrowing Across Religions?

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Abstract:

This study explores the relationship between religion and economic behavior, specifically asking whether variations in household borrowing can be attributable to identification with different Christian religious traditions across the United States. The hypothesis of different borrowing behaviors across religions is motivated historically and theoretically. Historical data from l967 and 1971 are used in ordinary least squared and logistic regression analyses. Density of religious affiliations and relevant controls are used to predict households' debt and attitudes towards different reasons for borrowing. Some differences across religions are found. This research contributes to a broader literature exploring the impact of religion on economic outcomes and decision-making.

Introduction

The history of finance and the history of religion are intricately linked. To name a few, this linkage has variously manifested as monetary issuance,[1] debt-oriented theological paradigms,[2] and debt jubilees, both ancient[3] and in the 19th century.[4] One theme with notable presence across several religious traditions is the discouragement of debt and borrowing. This has often manifested as a prohibition on, or at least criticism of, usury—often understood as the charging of interest on credit.[5] At least theoretically, Islamic finance rejects Western notions of debt in favor of equity financing.[6] American Christian discourses have often focused on the debtor side of this relationship. Self-help finance gurus such as Dave Ramsey, Ron Blue, and Howard Dayton have long associated themselves with conservative Evangelicalism[7,8,9] and Mormon leaders have repeatedly admonished frugality and avoidance of unnecessary debt.[10,11]

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[1] One prominent historical emergence of money refers to Mesopotamian "Palatial Credit," or temple money—partially the subject of Keynes' obsession during his "Babylonian Madness." (Hudson, 2018, p. 2)
[2] (Graeber, 2011, pp. 56-57)
[3] (Hudson, 1993, p. 10)
[4] President of the Church of Jesus Christ of Latter-day Saints, "[John] Taylor and his associates decided to sponsor an Israelitish Jubilee, which was a traditional fifty-year cancellation of debts. The Jubilee began in April 1880 with a three-phase program designed to 'free the worthy debt-bound brother.' To begin with, one-half of the debts owed to the Perpetual Emigrating Company were canceled. By 1880, approximately $704,000 on principal and $900,000 on interest were owed by some 19,000 persons who had been assisted by the Fund. Under the instructions of the church, bishops were permitted to cancel part or all of the indebtedness of all families in their wards, who, in their judgment, deserved it… By vote of conference, approximately $802,000 was scratched from the books of the Fund. Similarly, one-half of all the delinquent tithing was cancelled." This describes only the first of these phases, followed by redistribution of 1,000 head of cattle and 5,000 sheep, interest-free loans of 35,000 bushels of seed wheat, and a general debt cancellation enacted by Mormon banks and businesses. (Arrington, 1958, pp. 355-356)
[5] (Ackerman, 1981, p. 64)
[6] "The central objective of ... Islamic financial industry is geared to eradicate 'riba' or interest and established the norms of socio-economic justice and equality that conventional financial industry is greatly lacking." However, "Many Muslims are reluctant to put their faith in Islamic banking as they see that it is very similar to conventional banking, and only boasts of a difference in form not in substance." (Eddy Yusof, Kashoogie, & Anwar Kamal, 2009, pp. 16-17)
[7] (Ramsey Solutions, 2022)
[8] (Ron Blue Institute, 2023)
[9] (Compass — finances God's way, 2022)
[10] (The Church of Jesus Christ of Latter-day Saints, n.d.)
[11] (The Church of Jesus Christ of Latter-day Saints, n.d.)

In America, the diversity of religious associations may lead to differences in attitudes and behaviors surrounding private debt. I look at the subject empirically and test whether such rhetoric translates to different economic decisions between U.S. religious groups. Rather than assuming that orthopractic norms sufficiently explain these behaviors, I motivate possible differences theoretically, referencing a forthcoming overlapping-generations model developed by James Feigenbaum.

Literature Review

If the linkages between religion and economic life go back to early human history, the linkages between the scholarly study of religion and economics goes back to at least Max Weber's *The Protestant Work Ethic and the Spirit of Capitalism*, which argues that protestant theological doctrines accelerated the adoption of capitalist markets and modes of production. There is also a contemporary literature on the economics of religion and in other social sciences. Chungping, Li, and Lingwei (2016), looking at China, found that survey respondents of religious backgrounds borrowed less than comparable respondents of non-religious backgrounds. Additionally, they found that Buddhists borrowed less than other religious individuals. However, as no other religious groups were found to have statistically significant effects, the first result may be driven by these differences in Buddhist borrowing behaviors.

Guizo, Sapienza, and Zingales (2006) found that, compared to nonreligious individuals, Catholics are 3.8 percent ($p < 0.01$) more likely to and Protestants 2.7 percent ($p < 0.05$) more likely to consider teaching their children the value of "thrift, saving money and things" to be important. Performing cross-country regressions, it becomes much less clear whether these preferences and religious affiliations have an impact on savings behavior. Hess (2012) found that, in the United States, religiosity was helpful in predicting credit card balances and the

number of credit cards per individual and that, at a 1 percent significance level, religiosity was associated with lower levels of credit card debt. Hess's contributions examine the borrowing differences associated with varying levels of religiosity. I look to address whether there are differences between religious groups.

Other research into the linkages between religion and economic behavior look at development, firm decision-making, and socioeconomic outcomes but not personal finance behaviors.

Theoretical Motivations

The concept of Optimal irrationality is central to the motivating model. Optimal irrational behavior exists when the result of economic agents' individually irrational, i.e., non-maximizing, behavior leads to a state of affairs where total utility is higher than it would have been had agents maximized their utility. Feigenbaum, Caliendo, and Gahramanov (2011) show that the optimal rule of thumb for lifecycle saving confers a higher steady-state level of utility than obtains under utility maximizing behavior. Feigenbaum, Gahramanov, and Tang (2013) also find an example of optimal irrational behavior as a solution to the annuities puzzle. Forthcoming research from Findley, et al. apply the concept to overconfidence in investing.

Feigenbaum (2023) presents another instance of optimal irrational behavior, showing that widespread adoption of self-imposed household borrowing constraints can be welfare enhancing. Intuitively, the religious discouragement of borrowing, if followed, can be optimally irrational as follows: people are counseled to refrain from borrowing, so they save more. This increased saving makes additional funds available that allow for increased investment and hence increased capital accumulation. This results in increased wages and hence consumption and standards of

living. This behavior is individually irrational because borrowing and debt could be used to smooth consumption over the lifecycle and as such are welfare-enhancing at the individual-level.[12]

Note also that this mechanism does not imply anything specific about the motivations of relevant religious prescriptions. Rather, in a social evolutionary way, groups that successfully discourage borrowing, for whatever moral or pragmatic reason, would, given sufficient density, eventually be rewarded with the increased wealth associated with savings and hence capital investments. This would allow these groups to better propagate and proselytize while groups without borrowing restrictions would, other things equal, face higher opportunity costs associated with expansion. Thus, we can think of the adoption of this model as selected for by cultural evolutionary mechanisms rather than as the result of religious leaders having understood higher-order economic effects.

Empirical Approach

To test all aspects of this model, even just in the US, would require much more data than is readily available. As such, I focus on the behavioral differences between religious groups and leave the subject of testing for differentiated capital accumulation to future researchers. I test whether the concentration of different religious groups across much of the continental US is associated with differences in household borrowing behavior and attitudes. Though the scope is nation-wide, particular emphasis is placed on Mormonism. Two facts motivate this focus: 1) The emergence of Evangelical finance self-help personalities occurred largely after the gathering of

[12] Or, given behavioral biases and time-inconsistent preferences, are at least potentially welfare-enhancing.

the data used, 2) Utah's high concentration of Mormons make it a particularly important example of where a self-imposed borrowing constraint might be widespread.

Significant differences in borrowing behavior between religions do not necessarily imply our motivating model. It is possible that individuals adopt orthodox advice regarding debt without there existing associated larger capital stock and consumption possibilities, relative to the counterfactual world with only maximizing agents. However, consistent and significant differences would serve as an important piece of evidence for the model.

Data

The biggest challenge in answering these questions is the availability of data. For reasons explained below, the data used come from the 1967 edition of the Survey of Consumer Finances and from the 1971 Churches and Church Membership in the United States dataset, henceforth referred to as the SCF and the CCM respectively.

Recent religious demographic data can be quite detailed but more recent financial datasets on households do not release geographic identifiers, for privacy reasons, making connecting separate religious and financial datasets impossible. The first constraint, then, is that the data needs to be old enough that geographic variables have been made public. The second requirement is for quality religious demographic data. Older county-level religion datasets, such as the 1952 CCM, have low response rates. Newer county-level religion data, such as the 1980 or 1990 edition of the survey, covers periods where SCF geographic identifier variables are not yet public. This points to the 1971 CCM dataset as an obvious choice.

The SCF is a nationally representative survey wherein the head of each family unit was interviewed. The data were collected in the first three months of 1967, focusing on consumer

income, assets, debts, economic outlook, attitudes around personal finance, and demographic characteristics. The SCF was conducted annually from 1947 until 1971 and sporadically thereafter, often with yearly changes in what survey questions are asked. The 1971 SCF focuses on individuals' expectations for the macroeconomy, their personal financial outlook, their perspectives of differentiated good (color versus black and white televisions or foreign versus domestic automobiles, for example), and their anticipated consumption behavior. There are relatively few measures of household debt, only a couple in dollars values with most asking questions about whether individuals purchased various durable goods and whether they used credit to finance such purchases. The SCF from 1968 to 1970 includes more measures of borrowing than the 1971 SCF does, but fewer measures than the 1967 SCF. There are similarly far fewer measures of attitudes around debt, with only one relevant question in 1970 about the costs and benefits of credit card use and no questions about borrowing attitudes in 1968 or 1969. The 1967 SCF is chosen for its wealth of debt measures/potential dependent variables and for asking about which sorts of borrowing behaviors individuals deem acceptable.

There are 2,301 observations in the SCF. This number includes the observations remaining and the original data has been filtered to exclude non-white respondents, who would be subject to credit rationing and redlining and whose distribution would not be roughly even across religious groups (Gabriel & Rosenthal, 1991). The observations have also been filtered to exclude farmers, whose work requires large-scale capital expenditures, often financed by credit. This ensures that household borrowing for consumption remains the sole dependent object of investigation.

The CCM contains county-level statistics on membership in Christian churches in 1971, which account for an estimated 81 percent of Christian church membership in the US. The data,

collected from 1971 to 1973, are self-reported numbers requested from every denomination listed in the Yearbook of American Churches. The dependent variables as named in the regression tables are self-explanatory, however the independent variables are described in the tables below.

Explanatory variables of interest:

Variable	Description	Data source
Protestant	Proportion of the respondent's county's population that is on the rolls of Protestant churches	CCM
Catholic	Proportion of the respondent's county's population that is on the rolls of Catholic churches	CCM
Mormon	Proportion of the respondent's county's population that is on the rolls of the Church of Jesus Christ of Latter-day Saints	CCM
SLC	Dummy variable for if the respondent lives in Salt Lake County, Utah	SCF

Control variables:

Variable	Description
Age	Age of respondent
Married	Dummy for if respondent is married
Male	Dummy for if respondent is male
Household size	Number of individuals in household unit
Wage earner	Dummy for if respondent has labor income
Head of household with HS degree only	Dummy for if respondent has only a high school degree
Head of household with college degree	Dummy for if respondent has a college degree
ln(total income)	Natural log of respondent's total income
Large urban location	Dummy for if respondent lives in a city sized 50,000 or more
Small urban location	Dummy for if respondent lives in a city sized 2,500-49,999
Homeowner	Dummy for if respondent is a homeowner

Summary Statistics:

Variable	Mean	Median	Min	Max	St. Dev.
Protestant	0.572	0.624	0.072	1	0.272
Catholic	0.315	0.254	0	0.851	0.263
Mormon	0.014	0	0	0.825	0.105

Dummy Variable	Proportion	St. Dev.
SLC	0.017	0.127
Married	0.803	0.397
Male	0.861	0.346
Wage earner	0.883	0.322
Head of household with HS degree only	0.469	0.499
Head of household with college degree	0.153	0.361
Large urban location	0.296	0.457
Small urban location	0.410	0.492
Homeowner	0.660	0.474

Variable	Mean	Median	Min	Max	St. Dev.
Age	42.169	43	21	65	11.776
Household Size	3.433	3	1	11	1.790
ln(total income)	8.889	9.007	4.605	12.206	0.767
Total income (not logged)	9808.953	8325	-3498	200000	10050.57

Econometric Framework

We can estimate the effect that a range of religiously relevant variables (listed in the first table above) and a range of control variables (listed in the second table above) have on a variety of debt measures:

> Value of household debt measure = intercept + explanatory coefficients * explanatory values + control coefficients * control values + error term

OLS regressions are used to estimate the relationship between the independent variables and various numerical measures of economic behavior. Logistic regressions are used to estimate the

relationship between the independent variables and the likelihood of a survey participant having a positive attitude towards various reasons that an individual might borrow money. All dollar amounts above one have been transformed with the natural logarithm. This serves to mitigate the effects of any possible outliers in the data and transform the data. It also mitigates any potentially skewed distributions, making them closer to a normal distribution. Presented below are selected results. Various measures of debt are predicted using the CCM religious concentration variables. Given the overwhelming concentration of Mormons in Salt Lake County during 1967 and a lack of Mormons almost everywhere else in the dataset, these debt measures are also predicted with the SCF dummy variable for whether a survey respondent lived in Salt Lake.

Selected Results[13]

Natural log of	(1) Mortgage value (hundreds of dollars)	(2) Remaining installment debt incurred in 1966†	(4) Remaining debt incurred in all years†
Protestant	-0.132	-0.320	-0.103
	(0.105)	(0.243)	(0.250)
Catholic	0.112	-0.797**	-0.964***
	(0.110)	(0.254)	(0.260)
Mormon	-0.416	0.625	1.264
	(0.264)	(0.632)	(0.648)
Constant	3.400***	7.007***	7.100***
	(0.400)	(0.889)	(0.913)
Observations	952	2292	2292
R-squared	0.0389	0.0829	0.118
F-statistic	2.920	14.71	21.74

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
† Excluding medical and dental debt

[13] See appendix 1 for full regression tables. Selected results include but do not list controls.

Natural log of remaining installment debt on all durables	(6) Incurred in 1966	(7) Not incurred in 1966
Protestant	-0.346*	0.128
	(0.162)	(0.0866)
Catholic	-0.214	-0.108
	(0.169)	(0.0902)
Mormon	-0.00971	0.735**
	(0.421)	(0.225)
Constant	2.404***	0.779*
	(0.593)	(0.316)
Observations	2292	2292
R-squared	0.0602	0.0291
F-statistic	10.41	4.874

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Natural log of	(8) Mortgage value (hundreds of dollars)	(9) Remaining installment debt incurred in 1966)†	(11) Remaining debt incurred in all years†
SLC	-0.380	0.683	1.271*
	(0.216)	(0.518)	(0.532)
Constant	3.319***	6.630***	6.848***
	(0.392)	(0.872)	(0.896)
Observations	952	2292	2292
R-squared	0.0364	0.0783	0.113
F-statistic	3.225	16.12	24.08

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$
† Excluding medical and dental debt

Natural log of remaining installment debt on all durables	(13) Incurred in 1966	(14) Not Incurred in 1966
SLC	0.0242	0.643***
	(0.345)	(0.184)
Constant	2.116***	0.851**
	(0.581)	(0.310)
Observations	2292	2292
R-squared	0.0576	0.0275
F-statistic	11.62	5.379

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Beyond asking respondents to report the monetary values of their assets, liabilities, and income flows, they were also asked their opinions evaluating when they thought it was appropriate for someone to borrow for consumption. The below results show how likely an individual was to respond that it would be alright to borrow money for the following reasons.

"People have many different reasons for borrowing money which they pay back over a period of time… Would you say it is all right for someone like yourself to borrow money for…?"

	(15) Illness	(16) Vacation	(17) Fur or jewelry	(18) Living expenses when income is cut
main				
Protestant	0.702**	-0.728**	-0.354	0.282
	(0.215)	(0.256)	(0.398)	(0.158)
Catholic	-0.310	-0.201	-0.339	-0.189
	(0.221)	(0.270)	(0.431)	(0.165)
Mormon	0.736	1.246**	1.535*	0.108
	(0.735)	(0.483)	(0.620)	(0.415)
Constant	1.282	-2.167*	-5.218***	0.316
	(0.782)	(0.933)	(1.505)	(0.577)
Observations	2262	2282	2282	2249

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

	(19) Education	(20) Car	(21) Furniture	(22) Bills
main				
Protestant	0.507*	0.144	0.168	0.306
	(0.210)	(0.177)	(0.157)	(0.157)
Catholic	-0.367	-0.371*	-0.517**	-0.392*
	(0.216)	(0.184)	(0.164)	(0.165)
Mormon	0.465	0.108	0.763	0.232
	(0.655)	(0.497)	(0.457)	(0.405)
Constant	-0.334	0.464	0.205	0.580
	(0.749)	(0.644)	(0.575)	(0.575)
Observations	2249	2265	2267	2248

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Interpretation and Limitations

The variety of results tells a variety of stories. Even with a host of control variables, none of the regressions explain very much of the variation in debt given the variation in our independent variables. The most explanatory, regression (4), explains almost 12 percent of the variation in total remaining non-medical debt while the regressions relating to mortgage value fail to explain even 4 percent of the variation and find no significant differences between the religions. The results found when using the CCM religious concentration variables are similar to the results found when using the SCF Salt Lake County dummy variable, showing that the dummy is a fairly good proxy variable for Mormons.

Almost no significant behavioral differences are found among protestants. The effects of the presence of Catholics are statistically significant the most often and are consistently negative, implying that to the extent that they behave differently, they will take on less debt, on average. The presence of Mormons is not consistently significant but does occasionally indicate the likelihood of more debt than would otherwise be expected. Of course, this contradicts one motivating hypothesis.

While protestants do not seem to behave distinctly, their presence is associated with some significant differences in opinions around debt: borrowing for illness or education is okay, while borrowing for vacation is not. Catholic concentrations make it less likely that an individual thinks it is okay to borrow for a car, furniture, or bills. Mormons seem more likely to think that it is okay to borrow for vacation or for fur or jewelry.

We should be aware of the limitations of these results, stemming from the limitations of the data. The CCM data reports only the membership of Christian churches, excluding non-

Christian religious communities and the non-religious—certainly a minority in the United States, especially in 1966, but notable nonetheless. Another issue is the likelihood of churches overreporting their numbers. Given that churches simply reported how many members they had, this must have included individuals who were not particularly active in those religious communities or even considered themselves religious. To see the impact of various religious teachings on borrowing, it makes the most sense to focus on people who are committed to that religion. Ideal data would include religious tradition and degree of religiosity as part of the survey given to individuals.

The data also include only counties where Mormons are either ubiquitous or where they are either entirely or nearly absent. This leaves out areas throughout Idaho and Arizona where Mormons made up a considerable, if not always overwhelming, percent of the population. With a sample size of 2,301, only thirty-eight live in Salt Lake, the only Mormon majority county in the dataset. Though this is fairly representative, the small number creates room for statistical noise. Finally, these data are one cross-section. It is likely that borrowing dynamics may have been different earlier in the 20th century and that they have changed since the late 1960s.

Discussion

Apart from the data, we can also consider possible theoretical reasons for these results. It is worth looking at the composition of LDS rhetoric around household borrowing at this time and see how prominent it was, relative to other times in the LDS Church's history. Shepherd and Shepherd have shown that the prevalence of discussing debt and borrowing declined from the turn of the twentieth century to 1950-79 (2015, p. 278). The LDS General Conference Corpus allows for a more granular breakdown of LDS over the pulpit teachings on the matter (Davies,

2023). The twentieth century's trend of progressively less discussion of debt has continued to the present day, with only 13 mentions of personal debt since 2010.

Though less than previous decades, admonitions to discourage borrowing are regularly present in the years around the SCF and CCM datasets. For example, there were 50 mentions of the word debt in the 1957 General Conferences, excluding contexts where it was in reference to "a debt of gratitude," the national debt, the institutional Church's indebtedness, soteriology, or anything other than household borrowing. See Appendix 2 for the frequency of the word "debt," in relevant contexts, from 1940-1970. Similar analyses are possible for "borrowing," "spending," or "finance," but none of these occur very frequently at any time in LDS history. Most years did not exhibit numerous references to debt, but the occasional year with more than a dozen references shows that the discouragement of debt was part of the Mormon milieu. Considering this evidence, it does not make much sense to attribute Mormonism's association to changes in LDS teachings around debt.

Another possible explanation for the failure to find consistent, economically significant results challenges the assumptions of our motivating model. Religious orthodoxy surrounding borrowing has failed to generate different economic behaviors because, according to this line of argument, there is no causal mechanism that links increased saving with increased investment. This would hold if, as the Bank of England claims, "Rather than banks receiving deposits when households save and then lending them out, bank lending creates deposits," (McLeay, Radia, & Thomas, 2014). Their position is that the theory of loanable funds is fundamentally wrong. This has also been argued by a few legal scholars working on the institutional details of the financial system (Hockett & Omarova, 2017, p. 1145). They would posit that increased household savings would not lead to more beneficial borrowing conditions for firms. This would strip self-imposed

credit constraints, and hence religious admonitions encouraging such, of their selective, i.e., cultural evolutionary, power, leaving only generic advice of financial self-discipline. The core and controversy of this argument lies with this counterintuitive claim that savings do not fund investment. This objection is far from unique to the motivating theoretical framework described above. Rather, it would apply to a wide range of models which hold that savings are lent out by banks to fund investment, rather than positing that investment causes new savings as a byproduct of creating new employment opportunities. Either defending or rebutting these claims are beyond the scope and methods of this paper and I flag them only as one possible explanation for why religious teachings around finance might not be strongly associated with different financial behavior.

Conclusion

I have motivated with history and with the intuition behind some economic theory why some religions might lead believers to practice self-constraint in their borrowing behaviors. Empirically, some differences in borrowing behavior and attitudes have been found. The sign of these differences, however, is the opposite of what was *ex ante* predicted. I have discussed possibilities for why these results occurred. To the best of my knowledge, no previous scholars have asked or answered this question in the American context.

Further research could also investigate the emergence of the conservative Evangelical anti-debt crowd and see if protestant behavior changed in response. The growth of televangelism and the prosperity gospel may have influenced borrowing in the other direction. Further empirical analysis is needed to determine if one of these forces affected financial behavior more than the other. It would be important to distinguish between Mainline and Evangelical churches should one pursue this research question.

Appendix 1: Full Regression Tables

	(1) ln(Mortgage value (hundreds of dollars))
Protestant	-0.132
	(0.105)
Catholic	0.112
	(0.110)
Mormon	-0.416
	(0.264)
Age	0.000435
	(0.00247)
Married	-0.0433
	(0.0767)
Male	0.307*
	(0.128)
Household size	0.0630***
	(0.0176)
Wage earner	0.196
	(0.125)
Head of household with HS degree only	0.0498 (0.0638)
Head of household with college degree	0.110 (0.0885)
ln(total income)	0.0159
	(0.0372)
Large urban location	-0.0594
	(0.0737)
Small urban location	-0.0155
	(0.0698)
Constant	3.400***
	(0.400)
Observations	952
R-squared	0.0389
F-statistic	2.920

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Natural log of total remaining installment debt incurred in 1966	(2) Excluding medical and dental	(3) Including medical and dental
Protestant	-0.320	-0.341
	(0.243)	(0.244)
Catholic	-0.797**	-0.784**
	(0.254)	(0.254)
Mormon	0.625	0.620
	(0.632)	(0.633)
Age	-0.0627***	-0.0647***
	(0.00577)	(0.00579)
Married	0.882***	0.843***
	(0.167)	(0.167)
Male	-0.255	-0.216
	(0.206)	(0.207)
Household size	-0.00180	-0.00455
	(0.0394)	(0.0395)
Wage earner	0.611**	0.550*
	(0.217)	(0.217)
Head of household with HS degree only	-0.165	-0.247
	(0.148)	(0.148)
Head of household with college degree	-0.731***	-0.817***
	(0.203)	(0.204)
ln(total income)	-0.243**	-0.256**
	(0.0875)	(0.0878)
Large urban location	-0.0636	-0.102
	(0.173)	(0.173)
Small urban location	0.152	0.139
	(0.162)	(0.162)
Homeownership	0.200	0.202
	(0.143)	(0.143)
Constant	7.007***	7.408***
	(0.889)	(0.892)
Observations	2292	2292
R-squared	0.0829	0.0844
F-statistic	14.71	14.99

Natural log of total remaining debt incurred in all years	(4) Excluding medical and dental	(5) Including medical and dental
Protestant	-0.103	-0.119
	(0.250)	(0.248)
Catholic	-0.964***	-1.016***
	(0.260)	(0.259)
Mormon	1.264	1.187
	(0.648)	(0.645)
Age	-0.0801***	-0.0806***
	(0.00593)	(0.00589)
Married	1.283***	1.219***
	(0.171)	(0.170)
Male	-0.325	-0.287
	(0.212)	(0.211)
Household size	0.0331	0.0454
	(0.0404)	(0.0402)
Wage earner	0.491*	0.492*
	(0.222)	(0.221)
Head of household with HS degree only	0.00240	-0.0599
	(0.152)	(0.151)
Head of household with college degree	-0.409	-0.520*
	(0.209)	(0.208)
ln(total income)	-0.0699	-0.0591
	(0.0899)	(0.0894)
Large urban location	-0.176	-0.163
	(0.177)	(0.176)
Small urban location	-0.0178	-0.0503
	(0.166)	(0.165)
Homeownership	0.114	0.0763
	(0.146)	(0.146)
Constant	7.100***	7.223***
	(0.913)	(0.908)
Observations	2292	2292
R-squared	0.118	0.118
F-statistic	21.74	21.76

Natural log of remaining installment debt on all durables	(6) Incurred in 1966	(7) Not incurred in 1966
Protestant	-0.346*	0.128
	(0.162)	(0.0866)
Catholic	-0.214	-0.108
	(0.169)	(0.0902)
Mormon	-0.00971	0.735**
	(0.421)	(0.225)
Age	-0.0361***	-0.0115***
	(0.00385)	(0.00205)
Married	0.432***	0.177**
	(0.111)	(0.0594)
Male	0.145	-0.0887
	(0.137)	(0.0734)
Household size	-0.00869	0.00398
	(0.0262)	(0.0140)
Wage earner	0.258	-0.0349
	(0.144)	(0.0771)
Head of household with HS degree only	-0.261**	-0.151**
	(0.0985)	(0.0526)
Head of household with college degree	-0.759***	-0.235**
	(0.136)	(0.0724)
ln(total income)	0.00846	-0.00432
	(0.0583)	(0.0312)
Large urban location	-0.0564	-0.00114
	(0.115)	(0.0615)
Small urban location	-0.00586	0.0220
	(0.108)	(0.0576)
Homeownership	-0.0720	0.0120
	(0.0950)	(0.0507)
Constant	2.404***	0.779*
	(0.593)	(0.316)
Observations	2292	2292
R-squared	0.0602	0.0291
F-statistic	10.41	4.874

	(8) ln(Mortgage value (hundreds of dollars))
SLC	-0.380
	(0.216)
Age	0.000385
	(0.00247)
Married	-0.0392
	(0.0764)
Male	0.297*
	(0.128)
Household size	0.0633***
	(0.0176)
Wage earner	0.204
	(0.125)
Head of household with HS degree only	0.0514 (0.0638)
Head of household with college degree	0.125 (0.0879)
ln(total income)	0.0197
	(0.0371)
Large urban location	-0.0508
	(0.0734)
Small urban location	-0.0150
	(0.0698)
Constant	3.319***
	(0.392)
Observations	952
R-squared	0.0364
F-statistic	3.225

Natural log of total remaining installment debt incurred in 1966	(9)	(10)
	Excluding medical and dental	Including medical and dental
SLC	0.683	0.673
	(0.518)	(0.520)
Age	-0.0634***	-0.0654***
	(0.00578)	(0.00580)
Married	0.901***	0.862***
	(0.167)	(0.167)
Male	-0.257	-0.218
	(0.206)	(0.207)
Household size	-0.00161	-0.00435
	(0.0394)	(0.0395)
Wage earner	0.626**	0.566**
	(0.217)	(0.217)
Head of household with HS degree only	-0.175	-0.256
	(0.148)	(0.148)
Head of household with college degree	-0.786***	-0.871***
	(0.203)	(0.204)
ln(total income)	-0.248**	-0.260**
	(0.0876)	(0.0879)
Large urban location	-0.0643	-0.102
	(0.173)	(0.173)
Small urban location	0.146	0.134
	(0.162)	(0.163)
Homeownership	0.201	0.202
	(0.143)	(0.143)
Constant	6.630***	7.019***
	(0.872)	(0.875)
Observations	2292	2292
R-squared	0.0783	0.0798
F-statistic	16.12	16.46

Natural log of total remaining debt incurred in all years	(11) Excluding medical and dental	(12) Including medical and dental
SLC	1.271*	1.215*
	(0.532)	(0.530)
Age	-0.0810***	-0.0815***
	(0.00594)	(0.00591)
Married	1.297***	1.234***
	(0.171)	(0.171)
Male	-0.318	-0.280
	(0.212)	(0.211)
Household size	0.0330	0.0454
	(0.0405)	(0.0403)
Wage earner	0.499*	0.500*
	(0.223)	(0.222)
Head of household with HS degree only	-0.0126	-0.0755
	(0.152)	(0.151)
Head of household with college degree	-0.479*	-0.593**
	(0.209)	(0.208)
ln(total income)	-0.0788	-0.0684
	(0.0900)	(0.0896)
Large urban location	-0.189	-0.176
	(0.177)	(0.177)
Small urban location	-0.0258	-0.0587
	(0.167)	(0.166)
Homeownership	0.119	0.0809
	(0.147)	(0.146)
Constant	6.848***	6.951***
	(0.896)	(0.892)
Observations	2292	2292
R-squared	0.113	0.112
F-statistic	24.08	23.94

Natural log of remaining installment debt on all durables	(13) Incurred in 1966	(14) Not incurred in 1966
SLC	0.0242	0.643***
	(0.345)	(0.184)
Age	-0.0364***	-0.0116***
	(0.00385)	(0.00205)
Married	0.445***	0.174**
	(0.111)	(0.0593)
Male	0.136	-0.0837
	(0.137)	(0.0733)
Household size	-0.00837	0.00384
	(0.0263)	(0.0140)
Wage earner	0.273	-0.0394
	(0.144)	(0.0770)
Head of household with HS degree only	-0.261**	-0.155**
	(0.0986)	(0.0526)
Head of household with college degree	-0.770***	-0.245***
	(0.135)	(0.0721)
ln(total income)	0.0104	-0.00698
	(0.0583)	(0.0311)
Large urban location	-0.0450	-0.00887
	(0.115)	(0.0614)
Small urban location	-0.00686	0.0207
	(0.108)	(0.0576)
Homeownership	-0.0747	0.0142
	(0.0951)	(0.0507)
Constant	2.116***	0.851**
	(0.581)	(0.310)
Observations	2292	2292
R-squared	0.0576	0.0275
F-statistic	11.62	5.379

"People have many different reasons for borrowing money which they pay back over a period of time… Would you say it is all right for someone like yourself to borrow money for…?"

	(15) Illness	(16) Vacation	(17) Fur or jewelry	(18) Living expenses when income is cut
main				
Protestant	0.702**	-0.728**	-0.354	0.282
	(0.215)	(0.256)	(0.398)	(0.158)
Catholic	-0.310	-0.201	-0.339	-0.189
	(0.221)	(0.270)	(0.431)	(0.165)
Mormon	0.736	1.246**	1.535*	0.108
	(0.735)	(0.483)	(0.620)	(0.415)
Age	0.00457	-0.00554	-0.00300	0.00149
	(0.00511)	(0.00605)	(0.00953)	(0.00374)
Married	0.0494	0.0311	0.286	-0.0586
	(0.148)	(0.177)	(0.300)	(0.108)
Male	-0.384	-0.0526	0.335	-0.143
	(0.201)	(0.211)	(0.381)	(0.133)
Household size	0.0360	-0.0104	-0.114	-0.0224
	(0.0354)	(0.0416)	(0.0702)	(0.0257)
Wage earner	-0.228	-0.0783	0.722	-0.0713
	(0.206)	(0.222)	(0.446)	(0.140)
Head of household with HS degree only	0.129	-0.0282	0.0529	0.155
	(0.131)	(0.153)	(0.242)	(0.0963)
Head of household with college degree	0.0851	-0.249	-0.0584	0.215
	(0.179)	(0.226)	(0.342)	(0.132)
ln(total income)	0.0469	0.0754	0.151	-0.0708
	(0.0767)	(0.0926)	(0.144)	(0.0570)
Large urban location	-0.211	0.223	-0.118	0.112
	(0.151)	(0.182)	(0.280)	(0.113)
Small urban location	-0.0170	0.129	-0.119	0.144
	(0.147)	(0.174)	(0.261)	(0.105)
Homeownership	-0.190	0.0968	0.484	-0.0421
	(0.129)	(0.151)	(0.252)	(0.0926)
Constant	1.282	-2.167*	-5.218***	0.316
	(0.782)	(0.933)	(1.505)	(0.577)
Observations	2262	2282	2282	2249

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

	(19) Education	(20) Car	(21) Furniture	(22) Bills
main				
Protestant	0.507*	0.144	0.168	0.306
	(0.210)	(0.177)	(0.157)	(0.157)
Catholic	-0.367	-0.371*	-0.517**	-0.392*
	(0.216)	(0.184)	(0.164)	(0.165)
Mormon	0.465	0.108	0.763	0.232
	(0.655)	(0.497)	(0.457)	(0.405)
Age	0.000483	0.000658	-0.00371	-0.00546
	(0.00500)	(0.00422)	(0.00375)	(0.00374)
Married	-0.0804	-0.0685	-0.0661	-0.0233
	(0.147)	(0.123)	(0.108)	(0.108)
Male	-0.218	-0.411**	-0.152	-0.366**
	(0.185)	(0.159)	(0.134)	(0.133)
Household size	-0.00779	0.0395	0.0303	0.00841
	(0.0336)	(0.0291)	(0.0256)	(0.0254)
Wage earner	0.155	0.0529	-0.0913	-0.0962
	(0.184)	(0.158)	(0.141)	(0.140)
Head of household with HS degree only	0.129	-0.0815	0.00833	0.0125
	(0.127)	(0.108)	(0.0956)	(0.0956)
Head of household with college degree	0.188	-0.0691	0.141	-0.0947
	(0.178)	(0.148)	(0.133)	(0.132)
ln(total income)	0.188*	0.0976	0.0307	-0.00101
	(0.0735)	(0.0634)	(0.0568)	(0.0566)
Large urban location	-0.0197	-0.0647	0.251*	-0.0656
	(0.147)	(0.126)	(0.112)	(0.112)
Small urban location	0.0699	-0.0545	0.115	-0.183
	(0.140)	(0.119)	(0.105)	(0.105)
Homeownership	0.180	0.0573	0.0323	-0.0648
	(0.122)	(0.104)	(0.0923)	(0.0924)
Constant	-0.334	0.464	0.205	0.580
	(0.749)	(0.644)	(0.575)	(0.575)
Observations	2249	2265	2267	2248

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

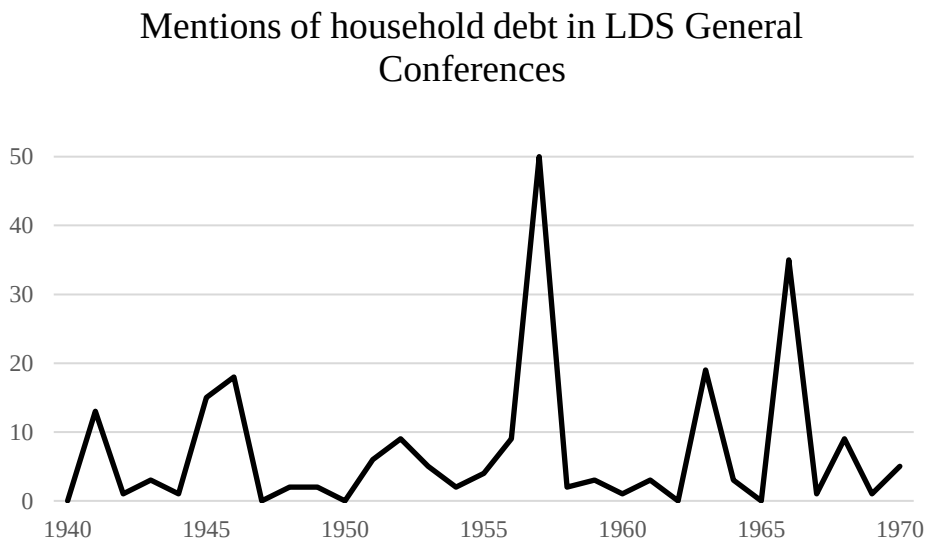
	(23) Illness	(24) Vacation	(25) Fur or jewelry	(26) Living expenses when income is cut
main				
SLC	0.749	1.021**	1.320**	0.153
	(0.607)	(0.392)	(0.501)	(0.339)
Age	0.00437	-0.00591	-0.00356	0.00141
	(0.00509)	(0.00604)	(0.00952)	(0.00374)
Married	0.0332	0.0553	0.306	-0.0649
	(0.147)	(0.176)	(0.299)	(0.108)
Male	-0.359	-0.0710	0.326	-0.133
	(0.201)	(0.211)	(0.381)	(0.133)
Household size	0.0362	-0.00885	-0.112	-0.0228
	(0.0353)	(0.0415)	(0.0702)	(0.0256)
Wage earner	-0.251	-0.0487	0.732	-0.0807
	(0.206)	(0.222)	(0.446)	(0.140)
Head of household with HS degree only	0.115	-0.0222	0.0500	0.149
	(0.130)	(0.153)	(0.242)	(0.0962)
Head of household with college degree	0.0542	-0.256	-0.0774	0.199
	(0.177)	(0.225)	(0.340)	(0.131)
ln(total income)	0.0356	0.0803	0.151	-0.0762
	(0.0765)	(0.0928)	(0.144)	(0.0569)
Large urban location	-0.249	0.249	-0.114	0.0950
	(0.150)	(0.181)	(0.279)	(0.112)
Small urban location	-0.0219	0.123	-0.125	0.141
	(0.147)	(0.174)	(0.261)	(0.105)
Homeownership	-0.181	0.0890	0.483	-0.0377
	(0.129)	(0.150)	(0.252)	(0.0925)
Constant	1.709*	-2.695**	-5.520***	0.484
	(0.767)	(0.920)	(1.483)	(0.564)
Observations	2262	2282	2282	2249

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

	(26) Education	(28) Car	(29) Furniture	(30) Bills
main				
SLC	0.492	0.194	0.768*	0.318
	(0.535)	(0.408)	(0.374)	(0.332)
Age	0.000191	0.000343	-0.00407	-0.00570
	(0.00498)	(0.00421)	(0.00373)	(0.00373)
Married	-0.0891	-0.0679	-0.0652	-0.0300
	(0.147)	(0.123)	(0.108)	(0.107)
Male	-0.195	-0.402*	-0.143	-0.352**
	(0.184)	(0.159)	(0.134)	(0.133)
Household size	-0.00837	0.0398	0.0301	0.00813
	(0.0336)	(0.0291)	(0.0255)	(0.0253)
Wage earner	0.135	0.0479	-0.0934	-0.107
	(0.184)	(0.158)	(0.140)	(0.139)
Head of household with HS degree only	0.117	-0.0891	-0.00139	0.00312
	(0.126)	(0.108)	(0.0953)	(0.0954)
Head of household with college degree	0.158	-0.0966	0.100	-0.125
	(0.177)	(0.147)	(0.132)	(0.131)
ln(total income)	0.176*	0.0908	0.0220	-0.00902
	(0.0733)	(0.0632)	(0.0566)	(0.0565)
Large urban location	-0.0528	-0.0777	0.232*	-0.0881
	(0.146)	(0.126)	(0.112)	(0.111)
Small urban location	0.0628	-0.0574	0.109	-0.188
	(0.140)	(0.118)	(0.104)	(0.105)
Homeownership	0.189	0.0603	0.0362	-0.0587
	(0.121)	(0.104)	(0.0921)	(0.0922)
Constant	-0.0286	0.506	0.238	0.729
	(0.733)	(0.630)	(0.562)	(0.562)
Observations	2249	2265	2267	2248

Standard errors in parentheses
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix 2:


Mentions of household debt in LDS General Conferences
50
40
30
20
10
0
1940
1945
1950
1955
1960
1965
1970

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