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Credit Card Blues: The Middle Class and the Hidden Costs of Easy Credit

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Abstract

In an era of increased access to credit, it becomes increasingly important to understand the consequences of taking on unsecured consumer debt. We argue that credit can have both positive and negative consequences resulting from its ability to smooth life transitions and difficulties but that this occurs simultaneously with increased financial risks and stress resulting from carrying unsecured debt. We find that those in the middle of the income distribution suffer the greatest disruptions to mental health from carrying debt. Affluent borrowers are relatively unmoved by debt, suggesting the use of short-term debt as a convenience strategy for the financially well-heeled. The least advantaged borrowers are also suffer emotionally less from debt, possibly because securing spendable funds for necessities remains their most pressing concern. The onset of the Great Recession, however, produced increased emotional distress for all classes.

Key works

debt; credit card; middle class; mental health; depression; anxiety

Access to credit has expanded at a time when many Americans, especially those who are less-affluent, are experiencing the pinch of economic stagnation (Morris and Western 1999; McCall and Percheski 2010). In recent decades, America has been transformed from a nation of savers to a nation of borrowers with personal savings declining from 10 percent in the 1980s to less than 1 percent in the 2000s (Carruthers and Ariovich 2010:21). Many scholars argue that credit and debt has replaced income growth in a time of stagnant or declining incomes for many American families (Hacker 2006; Leicht and Fitzgerald 2006). Credit can also provide institutional validation as when a car deal approves a consumer for a large loan, suggesting that they have significant status as a valued and trusted consumer (Peñaloza and Barnhart 2011; see also Dwyer, McCloud and Hodson 2011). The availability of credit has been further increased by aggressive lenders seeking new markets for their products, even with an awareness that repayment could be uncertain (Soman and Cheema 2002). Expanded credit in the face of limited and stagnant incomes leaves many Americans with increased vulnerability in the face of unexpected shocks such as unemployment,

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divorce, or illness (Sullivan, Warren and Westbrook 2000; McCloud and Dwyer 2011; Maroto 2012) and with increased stress levels as a result (Drentea and Reynolds 2012).

There is an emerging consensus that credit is a unique or “special” form of money that is not fully convertible or exchangeable with other forms of currency (Zelizer 1994). In short, credit is both a resource that allows current needs to be met, but it is simultaneously a liability that requires future repayment, generally with interest. Credit is thus unique in that it is risky: does using credit to address a current need balance favorably against the burden of future repayment? Risk and uncertainty are involved because the answer is difficult to know with certainty. The risky nature of taking on credit is part of what amplifies its potentially stressful impact beyond its simple addition or subtraction to a budget sheet of financial resources. In answering the question of “can I repay this debt?” the overall level of resources one has at one’s disposal becomes of paramount importance, suggesting that borrowers from different class locations and financial situations may have very different experiences of debt.

The transition to a debt society based on taking on risky credit is carried forward by its youngest generation who are faced with navigating some of life’s most significant transitions with the limited resources of jobs that are still relatively low on the career ladder. In the current article we thus focus on the effects of unsecured consumer debt on the mental health of young people transitioning to adulthood. We pay special attention to the economic resources available to young people (Cockerham 2006; Mirowsky and Ross 2003). In addition, we take advantage of the dramatic economic downturn of the Great Recession starting in 2008 as a natural experiment to evaluate the consequences of faltering expectations for the future and how these may influence those entering into uncertain times already carrying significant debt.

DEBT WORRIES

In a time of stagnant incomes and expanded access to credit for Americans, unsecured debt has become a focal money concern for many (Newman 1993). The total value of personal debt had outstripped even federal and corporate debt by the early 2000s (Manning 2000:34). Concerns, potentially daily concerns, about debt have thus become a new reality for many Americans.

Consumer credit can fund current consumption, either for necessities or for conveniences or luxuries. But debt is different from other sources of income – it has to be repaid. Income is thus a clear addition to one’s personal balance sheet. Credit is more ambiguous. It can help pay current bills but potentially at the cost of future consumption. Use of credit thus poses significant risks for one’s long term financial situation. Consumer debt is also typically uncollateralized so that it must be repaid with future income – income yet to be secured. In this sense consumer debt is the most volatile form of debt and poses the greatest risks. High levels of consumer debt have been shown to be associated with worse health outcomes and greater incidence of foregone medical care (Brown, Taylor and Wheatley 2005; Kalousova and Burgard 2013; Nelson et al. 2008). In short, there is always a risk that future circumstances may show taking on debt to have been a bad choice – a stepping stone to

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disaster. This calculated risk is credit's distinctive trait that separates it from other forms and sources of money.

The risks attendant on repaying unsecured debt are strongly contingent on one's broader financial situation and resources. These resources include one's economic class position, family economic resources, and even the state of the economy. Limitations on these resources for less affluent Americans mean that consumer debt may be particularly stressful for those with the greatest need and the fewest resources to repay debt.

Debt as a Double-Edged Sword

The democratization of access to credit has been promoted as a benefit to less affluent Americans who in the past have had limited access to credit to cushion the disruptions of economic life. In this sense, expanded access to credit is a benefit to those previously excluded from access. Short-term credit can help bridge between jobs, cushion a layoff, or help pay for necessary medical treatments. A generation ago, before the democratization of credit, such setbacks were more likely to force less affluent families to make harsh choices between home, education, health, basic utilities, and even food.

On the other hand, credit funded solutions to financial shortfalls may come at the cost of significant stress for families. The academic literature on debt has expanded alongside the expansion of debt itself and suggests that debt is significantly associated with depression (Bridges and Disney 2010), life stress (Kaji 2010), and reduced well-being (Norvilitis, Szablicki and Wilson 2003). Similarly, a quarter of college students report that they are extremely anxious about their ability to pay their monthly credit card bills (Sallie Mae 2009:5). Other research suggests that the effects of debt extend beyond simple anxiety. A Swedish study reports widespread shame based on debt and resulting psychosocial ill-health (Starrin, Åslund and Nilsson 2009) and a British study reports that suicidal ideation is twice as likely among debt holders (Meltzer 2011). A review of the literature on debt and health suggests widespread negative health effects resulting not just from stress but also from compromised access to health care and compromised ability to make health-maximizing choices more generally (Jacoby 2002:560).

Moral Meanings of Debt

Unsecured debt is more than just a debit on a household balance sheet equivalent to expenses made or income not received. The metric of its meaning is not exactly the same. Debt has its own special, moral meaning that may differ across individuals and social groups and even across circumstances for the same individual. As we develop below, a primary dimension of this variability in meaning is the resources that can reasonably be counted on for repayment. Because of its character as both opportunity and risk, debt is thus imbued with special social and moral meanings that shape people's responses to and experiences of debt.

It has been argued that taking on debt often reflects a cognitive disconnect between the immediately desired object or service to be purchased and one's resources for repayment (Manning 2000:101). This disconnect is argued to reflect a cultural accomplishment consciously engineered by lenders who seek to entice buyers to maximize their

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consumption, spend more than they can repay, and be converted into indentured debtors endlessly paying interest on purchases long since forgotten or used up (Baumeister 2002; Leicht and Fitzgerald 2006). While this characterization of lenders and their motives seems incontrovertible, we believe that it does not fully capture the experiences and considerations of borrowers. The strong version of the "cognitive disconnect" argument characterizes borrowers as irrational rubes who have been duped into spending more than they can repay. This characterization obviates the possibility that borrowers sometimes make a rational calculation that they in fact will gain significant long-term benefit from a short-term loan and are willing to take on the risks of repayment. This insight is at the root of an emerging literature on the benefits and risks of the democratization of credit for less advantaged borrowers. For example, even a pay day loan with unarguably poor terms may be rational for a worker needing to keep their phone services from being terminated for non-payment so that they can receive calls about available work hours for their job (see Barr 2009). Loans matter in such circumstances and are useful; they are not wholly irrational.

The social meanings of debt (see Zelizer 1994) help people negotiate this duality of necessity and desire *versus* risk. These social meanings are in part engineered by lenders who promote consumption through saturation advertising and provision of effortless, impossible-to-avoid shopping opportunities on a 24 hour/7 day a week basis. But these social meanings also reflect social class and other cultural meanings that prescribe appropriate styles of life for people in different social situations (Simmel 1955; Veblen 1899). Emerging research on the social meanings of debt suggest that such meanings revolve around such themes as achieving independence (particularly important for youth), self-discipline, security, and freedom from constraint (Peñaloza and Barnhart 2011:751; see also Henry 2010:674).

Importantly, these social meanings of debt vary by the resources people have available for repayment of debts. We focus on two primary resource bases that may be associated with perceived ability to repay debts – social class and state of the economy. One's social class position carries with it not only a certain level of personal income, but also a level of accumulated wealth, and importantly, extended family resources that can also vary significantly by class position. In addition, the Great Recession starting in 2008 provides a natural experiment to evaluate the extent to which expectations about opportunities in the broader economy also influences perceived ability to repay debts. We will discuss these resource bases further in the following sections. We believe that prior research has sometimes yielded a mixed pattern of results on the effects of debt because inadequate attention has been given to the dual meaning of debt as both opportunity and a risk and to the social meanings of debt that can vary between different resource situations. We see our research as contributing to an emerging consensus that the duality of benefit and risk and socially contingent meaning of debt must be taken seriously to adequately understand the experiences of the new debt society.

Youth and the Future of the Middle Class

Young adulthood is a pivotal moment in the life course. The events of the period when one comes of age can set a lasting stamp on one's life orientation. The idea that young people

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carry forward these transitional and transformational experiences as a foundation for their world view became widely recognized and incorporated into life course studies through Glenn Elder's classic study of *Children of the Great Depression* (1974). More recently, life course researchers have noted the increasingly rocky and uncertain transitions that face youth today due to higher demands for and increased costs of higher education and reduced availability of stable middle-class careers (Bernhardt et al. 2001; Mortimer 2003; Schneider and Stevenson 1999; Waters et al. 2011).

The full meaning and impact of the transition to a new debt society can be fully appreciated only by understanding the life experiences of those who are coming of age at this increasingly challenging time and have experienced the ready availability of credit and the vision of stagnant opportunities as part of their earliest adult experiences. Recent cohorts have indeed had unprecedented access to credit. And lenders have targeted young consumers relentlessly to convert them to borrowers at the earliest opportunity (Ritzer 1995; Manning 2000). The result is that recent cohorts of youth carry more consumer debt than earlier cohorts, and have a harder time paying it off (Jiang and Dunn 2013; Houle 2011). The inexperience of youth along with the increasingly normative nature of credit and debt for this generation may leave young people vulnerable to becoming financially overextended (Draut 2006) and seriously stressed about repayment and about their financial future (Christie and Munro 2001). Concerns extend beyond repayment to include uncertainties about being able to successfully undertake subsequent transitions, such as marriage, home ownership, family formation, and even retirement (Ekici and Dunn 2010).

Hypothesis 1 *Consumer debt will have a negative net association with mental health for young adults.*

The hypothesis of a negative net association of consumer debt and mental health reflects the fact that, once incurred – for whatever reason – debt can become stressful and create concerns about repayment and about compromised future opportunities. Controlling for significant early life transitions and statuses should reveal a negative net effect of debt on mental health – those who are holding greater consumer debt will have less positive mental health than those holding less debt.

RESOURCES FOR REPAYMENT

The resources available to facilitate repayment of debts can determine whether debt is experienced as a strategy of temporary convenience to facilitate necessary or desired expenses or as an emergency stopgap measure to avoid a larger crisis – a stopgap measure with an uncertain outcome. Resources for debt repayment include one's own class position as well as frequently associated family and extended family economic resources and other forms of support. In addition, the broader cultural habitus or world view of one's class position (Lareau 2003) may influence whether one experiences taking on debt as a trivial matter of bookkeeping or as a significantly stressful event. The state of the broader economy as a source of economic opportunities can also be an important component of one's experience of debt – a reality highlighted by the onset of the Great Recession of 2008 and beyond.

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Class Resources

Wide and growing class inequalities in American society mean that young adults move through early life transitions with widely different resources at their disposal (Morris and Western 1999). Social class distinctions are thus central to how young adults will experience carrying debt and how it is likely to impact their level of stress and mental health. Young adults in different class positions have different levels of access to consumer credit. For those with credit, young adults in different class positions simply have very different resources with which to address their debt burden.

The connection between economic hardship more broadly and depression and anxiety is well established in the literature (Butterworth, Rodgers and Windsor 2009; Reading and Reynolds 2001; Ross and Huber 1985). More specifically, concerning debt, low-income borrowers typically use credit on an emergency basis to meet basic necessities, such as shortfalls in household budgets for utilities and food (Blank and Barr 2009; Conley 1999). Low-income borrowers also generally experience much higher credit card and other fees, including initiation fees, monthly fees, and overdraft fees (Mann 2009:262). In addition, less advantaged borrowers may be subject to heavily front loaded loans in which fees are paid in full at the beginning, greatly inflating actual rates paid (Heidhues and K szegi 2010). As a result of these and other factors, less advantaged borrowers typically have higher debt to income ratios than other borrowers with resulting heightened concerns about repayment (Mann 2009:266).

For the middle class, income disruptions from job loss are often a precipitating factor leading to heightened use of unsecured credit (Strully 2009), particularly job loss resulting in unemployment of relatively long duration (Mossakowski 2009). Income volatility, a typical situation for both the middle- and lower-classes is also associated with both greater borrowing and greater stress (Prause, Dooley, and Huh 2009). For middle-class borrowers in particular, heightened use of unsecured credit is thus often to maintain their lifestyle in the face of job loss, including job losses by either partner for married couples. One reason that middle-class families resort to unsecured credit is that they are increasingly fully financially extended in order to secure housing in preferred neighborhoods with better schools. Fixed costs thus make up an increasing proportion of middle-class budgets resulting in limited slack in the face even of temporary loss of income (Warren and Tyagi 2003:34). An additional aggravating factor is that fully half of middle-class American families have no net financial assets or negative net assets (Wheary, Shapiro and Draut 2007:2).

For young adults who have achieved relative affluence, debt is likely to have a different meaning and different consequences. Affluent borrowers are more likely to use unsecured debt as a temporary convenience and to have many more resources of career, family, and other assets to protect against any problems of repayment (Fligstein and Goldstein 2012). Strong social class differences in resource bases lead to the following class-based expectations for debt effects on mental health:

Hypothesis 2a *Those with low income will have access problems with securing debt thus limiting their debt burden but will also have the greatest trouble repaying debt. Our expectation is for significant but muted negative*

effects of debt on mental health because of the combination of limited access to debt but significant difficulty repaying debt if incurred.

Hypothesis 2b *The middle class will have the greatest negative mental health consequences of carrying debt because of the widespread use of debt for the middle class as a substitute for income to maintain a middle-class lifestyle in the face of economic challenges.*

Hypothesis 2c *The more affluent will have the least negative mental health consequences of carrying debt because of the use of debt mainly as a convenience rather than as a necessity involving significant risk.*

Economic Anxieties and the Great Recession

We have argued that debt is a razor's edge for borrowers with potential for both positive and negative effects on emotional health and that the resources available for repayment decisively condition its effect. Debt may thus be experienced positively, or at least less negatively, during periods of prosperity and expansion, but can become much more distressing during an economic downturn when confidence in continued employment and earnings falter. As Carruthers and Ariovich (2010:3) argue: "Creditworthiness … is ephemeral. Credit is a fickle thing, and economic value can seemingly turn into worthless vapor overnight." An economic recession poses significant vulnerabilities to everyone, but these vulnerabilities may be especially keenly felt by those already overextended with unsecured consumer debt. Our argument here is similar to the vulnerabilities argument of Sullivan et al. (2000) in which job loss, health crises, or divorce create vulnerabilities that can push people into bankruptcy. We extend this model by suggesting that societal level downturns (as well as individual crises) can quickly transform debt into a vulnerability creating stress, depression, and poorer mental health (see Sullivan 2009, for a similar extension).

The Great Recession of 2008 brought about a sharp drop in consumer confidence and also a significant pulling back from unsecured debt (Flatters and Willmott 2009). This sharp drop in consumer debt evidences just how nervous people became at this time about holding debt. While unemployment may have eroded some people's ability to repay debt, the prevailing and more widespread pattern was a contraction of debt as people trimmed their financial sails because of concern for rough water ahead. Evidence of a significant and widespread behavioral change of paying off debt early in the recession suggests that the effect of the recession will also be observable through the emotional shadow it casts on the stress levels and mental health of debt holders.

Preliminary research on mental health changes in response to the Great Recession suggests increased levels of depression in the first years following its onset (Lee 2010). These findings, however, have not been differentiated between those entering the Great Recession with or without debt. The limited available research does, however, suggest a pattern in which holding debt (at least at the aggregate level) at the beginning of a recession leads to a downward spiral in consumption (Mian and Sufi 2010). In this sense, recession may precipitate a "cognitive re-connect" (Manning 2000:101) in which expectations of easy

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repayment are called into question. Conceptualizing recession as entailing a precipitous drop in confidence about the resources available for repayment, leads to the following hypothesis:

Hypothesis 3 *The Great Recession of 2008 will result in decreased mental health across classes for those already carrying unsecured consumer debt, again with greater effects for the middle class because of their greater access to and reliance on debt to maintain a stable life style.*

The Necessity of Controls

In the historic context of expanding availability of credit, people often borrow to facilitate important life transitions such as marriage and the start of parenthood. In this context, taking on debt may be associated with the highly positive experience of these transitions. It is thus important to be able to distinguish these selectivities (people being selected into debt because of the usefulness of debt in financing a life transition) from the underlying effects of debt on mental health. We explore alternative ways to control for these associations and selection factors in the analyses below. All of these techniques, however, rest on identifying the core social circumstances and events that covary with debt.

We focus in particular on core circumstances characteristic of young adults that may precipitate taking on unsecured credit: educational endeavors, employment/unemployment status, marriage, parenthood, and inequalities of race and gender. In an age of high and rising tuition and democratization of credit, college students are increasingly using credit cards to cover at least part of their college expenses with the average unpaid balance reaching $4000 in recent years (Draut 2006). In addition, lenders see college graduates as desirable borrowers leading to higher ceilings and a greater availability of credit instruments for college graduates. Education is thus a key determinant of the level of unsecured consumer debt – and for reasons that may represent both rational investments in education (Dwyer, McCloud and Hodson 2012) as well as profligate desires leading to a life on the financial edge (Schor 1998). Similarly, secure employment both allows access to credit and emboldens borrowers to finance investments in their future, such as better clothes for work and a better residential location as components of a middle-class life style (Warren and Tyagi 2003:34) but can also lead to expenditures with lower returns and potentially producing greater stress, such as travel and frequent dining out (Manning 2000:171). Marriage and beginning parenthood are additional moments of temporarily heightened expenses that bring significant joy, but are also frequently accompanied by rising debt levels (Kamenetz 2006).

Race and gender may also be significant determinants of debt-related mental health stresses although the direction of these effects is unclear. There is substantial evidence that minority neighborhoods continue to be either targeted for more exploitative forms of credit (Rugh and Massey 2010) or redlined altogether (Cohen-Cole 2011). As a result, Blacks in particular report greater dissatisfaction with their credit card lenders than other borrowers (Mintel Reports 2012). It is also the case, however, that greater emotional resilience in the face of life stressors is often evidenced for Blacks, perhaps reflecting greater experience with such stressors or a culture of coping shaped by a history of discrimination (Keyes 2009:1694), leaving the expectation for the responses of Blacks to debt significantly indeterminate.

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Similarly, women may experience greater debt-related stress because of fewer resources and poorer access to credit on favorable terms than men (Dunn and Mirzaie 2012). But men may experience greater debt-related stress because of the lingering cultural expectation that they are "breadwinner" who is responsible for the finances of the family unit (Mirowsky and Ross 1995), leaving the expectation for gender differences also indeterminate.

Summary: Resources and Debt

Those with unsecured consumer debt balance on a razor's edge of risk. Has taking on credit been a wise strategy for securing life's necessities and rewards or a profligate overextension? While acknowledging that those with unsecured credit can be prey to manipulation by aggressive and unscrupulous lenders, we also believe that borrowers bring rational considerations to bear on their decisions to borrow and in their calculus for repayment. In these considerations the meaning of debt is significantly conditioned by social definitions of what is seen as an appropriate style of life, and by goals of independence, autonomy, and also responsibility – all of which are defined in relation to one's class position and the attendant economic resources of that position. We also expect significant fluctuations in the experience of debt based on the onset of the Great Recession with increased stress and depression for those carrying unsecured debt into what was widely perceived as an economic abyss.

DATA AND METHODS

We use the National Longitudinal Survey of Youth-1997 cohort (NLSY-97) to inform these questions on the effects of debt on the mental health of young adults [http://www.bls.gov/nls]. Under the sponsorship of the U.S. Bureau of Labor Statistics, the NLSY-97 follows a nationally representative cohort of high school juniors starting in 1997 and resurveys them annually (N=8,984). The NLSY-97 asks a wide range of questions on both family background and current situation, including questions asked of respondents as far back as their mid-teens and questions asked directly of their parents at that time. In addition, a rich variety of current questions about work, family, and current financial behaviors are available, including detailed measures of unsecured consumer debt (detailed below).[1]

Measurement

Mental Health—The dependent variable is a five-item scale of mental health indicators. Beginning in 2000, the NLSY-97 has collected biannual measures of mental health. Respondents are asked how often they have: 1) felt depressed, 2) been a happy person, 3) felt down or blue, 4) felt calm and peaceful, and 5) been a nervous person in the past month. Responses are recorded on a four-point scale ranging from "all of the time" = 1 to "none of the time" = 4. We reverse-coded being depressed, down, and nervous so that higher scores would consistently reflect a more negative mental state across all five indicators. We then created a single measure of depression by calculating the summary mean across the five

[1]Data were collected primarily via computer-assisted interviewer-administered personal interviews, with more sensitive questions handled through self-administration. Telephone interviews are conducted when in-person interviews are not possible (14 percent of the Round 13 sample). Respondents receive a small monetary incentive for participation. A detailed account of the sampling and interview methods is provided online at: https://www.nlsinfo.org/content/cohorts/nlsy97/intro-to-the-sample.

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survey items (alpha = .78). Because the mental health variables are asked every two years, we interpolated and extrapolated data for years in which the mental health questions were not fielded to enable longitudinal analyses. Analyses that include only years in which the mental health variables were collected show a similar pattern of results.

Because we expect that debt-holding is particularly consequential for the experience of stress and anxiety, we also estimate models for the average response to the two items, "felt calm and peaceful," and "been a nervous person in the past month," again coding so that higher values indicates higher levels of stress. This enables us to isolate effects on anxiety as compared to the full constellation of depressive symptoms (Drentea and Reynolds 2011).

Consumer Debt—Our measure of consumer debt reflects the amount of debt respondents and their spouses owe to retail and financial institutions. Our measure of consumer debt thus focuses on unsecured debt (i.e., not car loans, housing and property debt, or student loans).[2] The question only includes the amount of debt held after the most recent payment and so this is a measure of debt that is carried month-to-month rather than paid off in full. Examples include store bills, loans obtained through a bank or credit union, margin loans through a stock broker, other installment loans, and credit cards if the respondent carries a balance. Beginning in survey year 2005, questioning became more specific: "Do you (or your spouse) have any credit cards, such as Visa, American Express, or credit cards for specific stores, such as department stores or gas stations?" If yes, then "After the most recent payment, roughly what was the balance still owed on all of these accounts together?" This question is repeated for money owed on any credit card accounts for which the respondent (or spouse) no longer has an active credit line. The amounts reported were summed for total consumer debt outstanding and top-coded at the 98th centile ($25,000).

Consumer debt data are collected as part of a broader battery of questions about assets and debts. Respondents were eligible to answer these questions if they were age 18 or if they met independence (from their parents) criteria such as getting married or having a child. In addition, they answered these questions in the first interview after respondents turn age 20, and again when they turn 25. This means that for most respondents we have a sizable number of repeat measures on debt. To enable longitudinal analyses, we carried forward debt values in years the data was not collected, which is a reasonable approach when the time between intervals is not long (Allison 2009).

Because many respondents carry no consumer debt, we model the variable as a spline function, which essentially splits the consumer debt measure into two variables (Marsh and Cormier 2002). The first is a dummy variable indicating whether the respondent holds any consumer debt. This measure captures differences between those who carry debt compared to those who have no standing consumer debt. The second is a variable that contains the amount of consumer debt held. This measure captures variation among debt-holders based on total debt levels.

[2]Our focus on consumer debt as a source of emotional distress follows an emerging consensus that different types of debt may have starkly different consequences for people's lives and experiences (Porter 2012). For example, home debt, car debt, and student debt may be experienced more positively as considered and relatively secure investments rather than as more risky undertakings.

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Economic Context—As a measure of the respondent's economic resources, we divide our sample of respondents into lower, middle, and upper classes, according to the respondent's household income in the most recent survey year. Respondents are coded as lower class (1), middle class (2), or upper class (3) if their household income falls into the bottom quartile, middle two quartiles, or top income quartile respectively.

To capture the effect of the most recent U.S. economic recession, we categorized survey years as pre- or post-recession. The recession occurred between December 2007 and June 2009 (National Bureau of Economic Research 2012). The 2007 NLSY survey was fielded from October 2007 to July 2008. Accordingly, survey years 2007 through 2009 are coded as post-recession.

Controls—We control for several factors that might influence the relationship between debt and depression. College attendance is a 3-category variable: Never attended a four-year college; attended four-year college but did not graduate; and four-year college graduate. The NLSY measures enrollment at post-secondary institutions using questions that ask about attendance for each month of the year. We identified college attendees by reviewing college attendance over the most recent year. A separate question captures the highest degree attained each survey year; we used this measure to identify four-year college graduates. Employment is a dummy variable with respondents who have worked any hours in a given year coded as 1. We constructed this variable from the total number of hours worked per year at all jobs. Married is a dummy variable with respondents who are currently living with a spousal partner coded as 1. This includes both cohabiters and legally married respondents who live with their spouses. Parental status is a dummy variable with parents coded as 1. Respondents who do not have legal responsibility for any living children are the reference group. Race is a dummy variable with White respondents coded as 1, and contrasted with all other respondents (Black, Hispanic, and mixed race). Gender is a dummy variable with female coded as 1.

Model Estimation—We estimate linear regression models of debt effects on depression and anxiety using the NLSY97 longitudinal dataset. With 84% retention across the 13 years of the survey[3] and an initial N of 8,984, the cumulative person years available for analysis (excluding cases with any missing data) is 67,470. Our main models are random effects models, allowing both between individual variation and within individual variation across time. We use random effect models to allow estimation of the effects of time invariant characteristics of individuals, such as race and gender, which cannot be estimated in fixed effects models (Firebaugh 2008). We present a series of models to explore the hypotheses developed above concerning debt and mental status and class differences in these relationships: 1) a model for the whole analytic sample that includes controls for a variety of respondent-level socioeconomic characteristics, 2) this same model estimated separately for lower-class, middle-class, and upper-class respondents, and 3) the above class specific models estimated separately for the pre- and post-Great Recession periods. Cases missing from any of the analytic variables are excluded from the analysis.

[3]For information on retention rates see: https://www.nlsinfo.org/content/cohorts/nlsy97/intro-to-the-sample/retention-reasons-non-interview.

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RESULTS

The NYLS-97 sample represents young people coming of age in America in the first decade of the new millennium. Between the ages of 20 and 25 the proportion of the young adults in the sample holding unsecured debt roughly doubled from 26.9% to 48.3% and average balances for debt holders increased from $2,984 to $6,023 highlighting the growing salience of debt for young Americans. We thus begin the analysis by focusing on this full sample in Table 1 which reports an analysis of depression and anxiety among these young people. The effects of the control variables are consistent with prior research. College graduates register lower depression than others, as do those who are working, with both results supporting the vision that better financial circumstances and expectations will enhance mental health. Being married improves mental health but there is no significant effect for children. Women report significantly higher levels of depression than men, a contrast widely reported in the literature on mental health (Mirowsky and Ross 1995). White respondents are more depressed than minorities, also consistent with prior research in a pattern that is sometimes called a racial "paradox" in mental health that may be associated with greater resilience among minorities chronically facing discrimination in the American context (Keyes 2009).

Turning to our main focus on consumer debt, the effect of debt on depressive symptoms is most significant for the linear measure of level of consumer debt rather than the dummy indicating any debt-holding. Those with higher levels of consumer debt experience significantly higher levels of depression. We find similar effects in the model for anxiety (see Table 1). Debt-holding is specifically associated with higher levels of stress as well as overall depression. We have hypothesized that the relationship between debt and mental health will be significantly affected by social context in terms of the other financial resources available to the young adults and in the overall economic conditions they face. We next turn to the analysis of these class and recession effects.

Class Analysis

The aggregate level of consumer debt across time for each of three social classes analyzed is reported in Figure 1. The average unpaid principal on consumer debt increases steadily across time for all three social classes. Notably, the middle class carries almost as much debt as the affluent reinforcing the observation that affluent consumers use credit as a convenience while the middle class is using it more broadly to compensate for stagnant or even declining incomes (Leicht and Fitzgerald 2006). Low-income borrowers have consistently lower unpaid principals and the gap actually widens over time supporting the observation that although there has been a democratization of credit, those with the lowest income lack access to desirable forms of credit and may also eschew credit because of realistic concerns about repayment.

We have argued that people evaluate their debt burden relative to available resources for repayment. The effects of consumer debt on depression stratified by class position are reported in Table 2 and anxiety in Table 3. We hypothesized that middle-class respondents experience the most significant negative effects of debt on mental health because they have fewer resources than affluent respondents to manage the demands of a middle class lifestyle, and have more access to credit than lower-income respondents. Our findings support this

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expectation as middle-class respondents with higher levels of consumer debt report significantly higher levels of both depression and anxiety. The effects are mainly in levels of debt rather than the dummy for carrying any debt and so for the middle class it is really those who have accrued substantial amounts of debt who experience the worst effects, consistent with the notion that debt may fill in for other sources of income leading to significant balances for middle-class borrowers.

Lower income respondents also experience reduced levels of mental health with debt-holding, but only for anxiety and not for global depression. In addition, for the lower class the effect is realized through debt-holding rather than through the level of debt. We suspect that this is because there is relatively little variation in debt levels among lower-income youth compared to the middle class, and so the primary effect becomes holding any debt versus holding no debt. In the middle class, in contrast, there are more respondents who carry relatively small levels of debt without significant duress, while those with higher levels of debt experience more negative effects. This pattern of effects is consistent with the different ways people of different means use debt in their lives.

We find that the upper-income respondents with higher levels of debt do have higher levels of anxiety, but no significant effect on broader indicators of depression. This is consistent with our expectations that those with greater financial resources may incur debt, but have greater confidence that they can repay it than the middle class. The more confident posture of affluent borrowers suggests more frequent upper-class use of consumer credit as a convenience strategy to prorate larger purchases across payment periods.

These class findings include all years in the analysis. However, there was a sharp economic shift with the onset of the global financial crisis and the Great Recession. This shift changed conditions for young adults in myriad ways, by potentially worsening their financial outlook in material terms, but also in changing the cultural meaning of debt. Quite suddenly, any debt-holding was thrown into question and consumer debt received particularly negative reviews. This raises the question of whether the deleterious emotional consequences of debt were more widespread during and after the recession than they had been before – during more ebullient economic times.

The Great Recession

We hypothesized that the Great Recession will have been experienced as a material threat to the resources needed for debt repayment and a normative threat to debt-holding, and will thus create additional emotional distress, an effect that should operate for all social classes. Class specific analyses of depression levels for pre- and post-recession periods are reported in Table 4 and for anxiety in Table 5. Prior to the recession, it was only middle-income borrowers that experienced significant emotional distress from unpaid consumer debt. With the advent of the recession, middle-class borrowers evidence increased levels of distress – with the coefficient increasing by 50 percent for anxiety and doubling for depression. But now, after the start of the Great Recession, lower- and upper-income borrowers also evidence greater duress. Lower-income respondents experienced worsened depression and anxiety as a result of carrying any debt balance, whereas upper-income respondents experience only significantly higher anxiety.[4] For both middle- and upper-income youth

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higher *debt levels* are most significant, whereas for lower-income youth it is the experience of holding debt at all that is at issue. Again, we see this as, at least in part, an indication of the different patterns of debt-holding by class as suggested in Figure 1.

The more similar class pattern of effects during and after the recession than before the recession supports our interpretation that economic pressure drives the negative effects of debt on mental health. It is striking that middle- and lower-income youth experienced those pressures before the recession, whereas the more advantaged group only came to that experience with the onset of the worst economic crisis in generations. It is particularly striking that the middle class fared worse in terms of both anxiety and depression both before and after the recession as this shows that debt stress has become a core part of the middle-class experience, even for young adults.

DISCUSSION

Debt is a seemingly necessary tool widely used across a range of social class positions to smooth economic bumps and to facilitate important transitions for young adults. Nevertheless, use of credit creates a burden of repayment that is reflected in increased anxiety and heightened depressive symptoms. The negative consequences of carrying debt are most prevalent for middle-class Americans at the intersection of expanding access to credit and significant economic challenges in repaying debt once accrued. With the onset of the Great Recession these tendencies intensified producing a potential fracturing of expectations for the economic future for middle-class Americans (Hacker, Rehm and Sclesinger 2013).

The pattern of results we have uncovered does not support the image of a nation that has become profligate in the face of easy credit. The pattern of class-specific effects, in which those with the least resources of repayment – those in the lower- and middle-classes – have both the lowest absolute levels of debt but also the greatest emotional distress because of debt, suggests that borrowers are being forced into borrowing by circumstances not of their liking (and often not of their making) and are suffering keenly as a consequence. For all Americans, and especially for young Americans, unemployment is one of the most pervasive and financially damaging such contingencies. Our results suggest that low-income and middle-class Americans are being cautious in their borrowing, considered (and worried) about the risks involved, and are consciously balancing needs against risks.

Middle-class borrowers evidence a pattern of increased depression and anxiety from carrying consumer high balances, rather than simply any balance, and this pattern was significantly aggravated by the onset of the Great Recession. Resources for repayment that may have been calculated as adequate are called into question, or literally disappeared because of job loss for one or another family member. With the Great Recession more middle-class borrowers came to experience anxiety and depression levels that increased by half or doubled, respectively. Lower-income borrowers saw few effects until after recession,

[4]The effect of the size of the debt carried on *depression* also increases for upper-income respondents after the start of the Great Recession; however, this effect is not statistically significant.

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which may be related to their relatively lower levels of access to and use of consumer credit. The recession brought debt-related concerns for lower-income respondents carrying any amount of consumer debt, highlighting the risk of even small amounts of debt during an economic downturn. For the affluent, consumer credit had no observable negative impact on mental health until after the recession. This pattern suggests that, with the onset of the Great Recession, affluent borrowers became at least somewhat more like middle-class borrowers in their sense of trepidation about levels of debt, likely in part because they began to feel the vulnerability that the middle class felt even before the recession.

We appear to have entered a period not only of heightened debt, but of heightened stress about debt but a period in which the negative consequences of debt are still strongly differentiated across social class positions. The finding of heightened middle-class stress about debt with the onset of the Great Recession clearly support the widely recognized insights of Sullivan et al. (2000) about the fragile middle class and of Leicht and Fitzgerald (2006) about the middle class being lent what it once might have been paid. For those in the bottom quarter of the income distribution the increasing democratization of debt may bring some advantages of short-term relief from specific crises, but it does not provide a panacea for what is most fundamentally a problem of income that is inadequate to address a life style characterized by chronic economic shortfalls and crises. And to the extent that carrying debt can hobble economic success, lower-income families may face even more obstacles to economic mobility into the middle class. More, or even better credit, is unlikely to provide a long-term solution to low-income earners who are already characterized by the highest debt to income ratio of any social class (Blank and Barr 2009).

Long-Term Implications

The transition to a debt society significantly carried forward by the youngest generation of adults is an enormous social experiment with an uncertain outcome. The findings presented in this article suggest that at least concerning mental health there are significant costs to be paid. Questions also arise about the ability of those carrying unpaid debt to make optimal choices as life events unfold and as their life stages progress. Will health and nutrition be compromised by the burden of unpaid debt, in part by avoiding medical care as too costly (Marota 2012)? And more broadly for the 75% of Americans we have characterized as low income or middle class, will future transitions be delayed or compromised, transitions such as pursuit of graduate education (Millet 2003), home ownership (Bernhardt et al. 2001), marriage (Addo 2011), birth of first child (Warren and Tyagi 2003), and eventually saving for their children's educational needs (Attewell and Lavin 2007) and for their own retirement (Mann 2011)? And at the level of the aggregate economy, to what extent will borrowers who are already maxed out be a constraint on economic recovery and growth, which rely heavily on consumer spending (Mian and Sufi 2010).

The growth of the debt society also has implications for how social scientists understand inequality. Credit can be an asset, access to which can provide at least some additional options in responding to the too-frequent economic crises experienced by those without the benefits of affluence. Debt, however, can also accentuate and intensify inequalities through subtracting additional income from those least able to afford it through the interest

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payments, fees, and penalties associated with consumer credit. The results presented here also suggest that debt can intensify the emotional distress and suffering associated with economic shortfalls. Theories of stratification suitable for understanding class relations and class realities thus need to incorporate a full understanding of the role of debt and credit in contemporary class society as a material, emotional and cultural reality.

Limitations

The current analysis leaves some unanswered questions. For instance, although the consumer debt measures we have used are quite detailed, it would also be useful to have measures of terms and interest rates. Importantly, continuing studies of the long-term effects of debt as these consequences unfold will be particularly useful, up to and including the transition to retirement. Only through such studying such longer term outcomes can we understand the consequences of the potentially risky decisions being undertaken today on a daily basis, especially by low- and middle-income Americans, and the extent to which these risks materialize as a better or a more compromised economic existence.

CONCLUSIONS

Does unpaid consumer debt create emotional duress for young borrowers? The answer appears to be a resounding yes, but a yes conditioned by class position. For middle-income borrowers the answer is unequivocally that unpaid consumer debt increases depressive symptoms. For lower-and upper- income borrowers the emotional costs of consumer credit only become manifest with the onset of recession, an environment in which the availability of resources for repayment became significantly more uncertain.

We see the finding of a class stratified pattern of effects of consumer debt effects on mental health of young adults as part of an emerging consensus both on the centrality of debt for understanding contemporary stratification dynamics and also on the centrality of economic class position for understanding the role and meaning of debt. More specifically, our findings suggest that the democratization of credit for the poor, while important for avoiding some of the extreme consequences of economic shortfalls, such as termination of utilities, eviction, or inability to pay for needed health care, is a very problematic solution to the economic challenges faced by low-income Americans. What the poor need is not more credit, but perhaps better credit, and most fundamentally more income. Credit will not solve long term problems of poverty and insufficient resources and may actually aggravate those problems because of the costs of credit in terms of interest payments, fees, and penalties.

Other solutions to the problems of low-income and middle-class borrowers include greater efforts to promote financial literacy (Holden 2011:553). Such approaches are essential and are beginning to be implanted across the country in schools and universities and other venues (see www.nefe.org). Greater financial literacy is not just about achieving dollar and cents outcomes on a balance sheet but can also put family discussions of finances on a more rational footing potentially reducing one of the most common sources of family conflict (Dew 2011). In addition, greater transparency in lending practices and more effective regulation prohibiting exploitative practices could also contribute to reduced emotional duress for those struggling with consumer debt. Effective regulation of credit and borrowing

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is clearly an important societal goal – the onset of the Great Recession of 2008 brought about by speculative banking practices clearly underscores this need. Subsequent legislation regulating banks and other lenders, however, is already being criticized as being ineffective (Hacker, Rehm, and Sclesinger 2013; Cohen-Cole 2011). From the standpoint of consumer protection, this legislation has been criticized for still relying on passive disclosure, which places the responsibility on the borrower to still peruse the fine print, as opposed to aligning the interests of lenders and borrowers through "knowing assent" (Carruthers and Ariovich 2010). Other suggested extensions include allowing class action remedies for similarly situated borrowers (Zacks 2010).

The issues of consumer debt and its consequences extend well beyond the individual borrowers and their travails. Most fundamentally, these consequences reflect the dilemmas of the larger political economy of a society caught in a cycle of spiraling debt and a declining middle class. With the transformation of American companies from producing goods and services to achieving profits from financial transactions (and manipulations), investments in productivity have been replaced by financial speculation, leaving Americans with fewer and poorer paying jobs (Lapavitsas 2011:620; Leicht and Fitzgerald 2006). Increased consumer debt is the clear result. The solution to consumer debt thus lies not only with consumers and with the education and protection of consumers but also in struggles over the nature, regulation, and functioning of national and international financial enterprises. Solutions to the problem of consumer debt also depend on whether economic growth will be widely shared and will strengthen the middle class, or whether our current trajectory of growing inequalities and middle class decline will continue.

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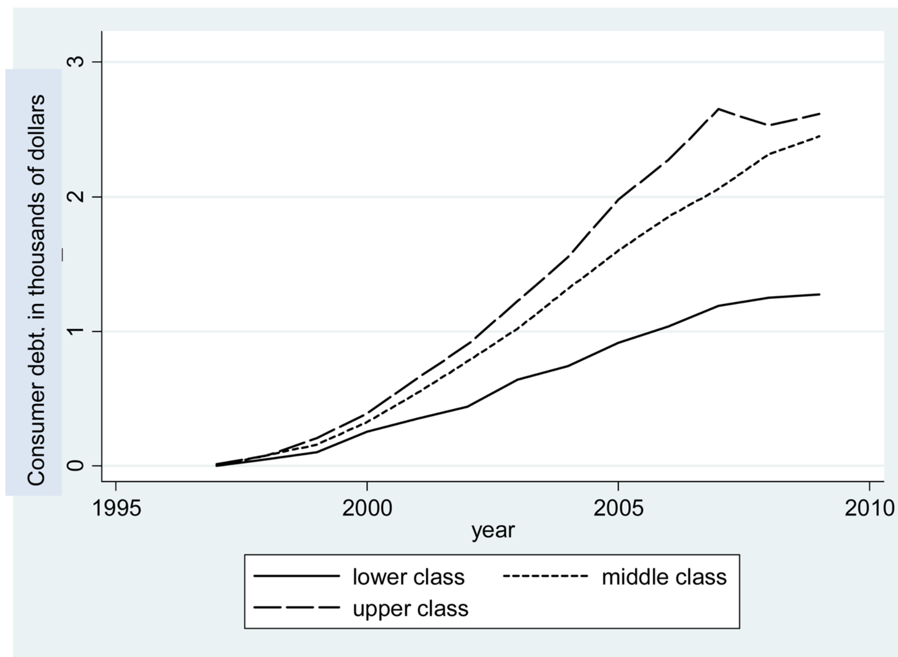

Figure 1.
Growth in Consumer Debt for Young Adults by Income Class (NLSY-97)

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Table 1

Random Effects Analysis of Depression and Anxiety Regressed on Consumer Debt, NLSY-97 (1997–2009).

Independent Variables	Depression	Anxiety
	b/*se*	**b/*se***
Carry consumer debt balance	0.001 *(0.007)*	0.004 *(0.008)*
Amount of balance	0.002*** *(0.001)*	0.004*** *(0.001)*
Parent	0.011 *(0.008)*	0.013 *(0.009)*
Married	−0.061*** *(0.005)*	−0.034*** *(0.006)*
Employed	−0.027*** *(0.007)*	−0.036*** *(0.009)*
Female	0.138*** *(0.008)*	0.185*** *(0.010)*
White	0.038*** *(0.008)*	0.096*** *(0.010)*
College graduate (4 year)	−0.029*** *(0.007)*	−0.021** *(0.009)*
Lower class (bottom 25%)	0.000 *(0.000)*	0.000 *(0.000)*
Middle class (middle 50%)	−0.093*** *(0.011)*	−0.069*** *(0.013)*
Upper class (upper 25%)	−0.114*** *(0.013)*	−0.078*** *(0.015)*
Constant	1.948*** *(0.013)*	2.044*** *(0.015)*
R-sq.	0.035	0.036
N (person years)	67,470	67,460

Significance denoted by:

*** .001;

** .01;

* .05.

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Table 2

Random Effects Analysis of **Depression** Regressed on Consumer Debt by Social Class, NLSY-97 (1997–2009).

Independent variables	**Lower-class**	**Middle-class**	**Upper-class**
	b/*se*	**b/*se***	**b/*se***
Carry consumer debt balance	0.024 (0.017)	−0.009 (0.009)	0.005 (0.013)
Amount of balance	0.002 *(0.002)*	0.003** *(0.001)*	0.002 *(0.001)*
Parent	0.014 *(0.017)*	0.011 *(0.010)*	0.010 *(0.017)*
Married	−0.030** *(0.014)*	−0.068*** *(0.007)*	−0.067*** *(0.010)*
Employed	−0.057*** *(0.012)*	−0.012 *(0.010)*	−0.008 *(0.017)*
Female	0.172*** *(0.020)*	0.131*** *(0.011)*	0.124*** *(0.016)*
White	0.051** *(0.021)*	0.032*** *(0.011)*	0.042** *(0.017)*
College graduate (4 year)	−0.032 *(0.024)*	−0.024** *(0.010)*	−0.034*** *(0.012)*
Constant	1.936*** *(0.020)*	1.853*** *(0.013)*	1.823*** *(0.022)*
R-sq.	0.034	0.024	0.028
N (person years)	15,020	36,893	15,557

Significance denoted by:

*** .001;

** .01;

* .05.

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Table 3

Random Effects Analysis of **Anxiety** Regressed on Consumer Debt by Social Class, NLSY-97 (1997–2009).

Independent Variables	Lower-class	Middle-class	Upper-class
	b/se	**b/se**	**b/se**
Carry consumer debt balance	0.042** *(0.020)*	–0.009 *(0.010)*	0.008 *(0.015)*
Amount of balance	0.001 *(0.002)*	0.005*** *(0.001)*	0.004** *(0.002)*
Parent	0.027 *(0.019)*	0.003 *(0.012)*	0.024 *(0.020)*
Married	–0.003 *(0.016)*	–0.040*** *(0.008)*	–0.040*** *(0.013)*
Employed	–0.065*** *(0.015)*	–0.019 *(0.012)*	–0.026 *(0.021)*
Female	0.194*** *(0.022)*	0.184*** *(0.013)*	0.179*** *(0.019)*
White	0.122*** *(0.024)*	0.088*** *(0.013)*	0.092*** *(0.020)*
College graduate (4 year)	–0.021 *(0.030)*	–0.024* *(0.012)*	–0.015 *(0.015)*
Constant	2.033*** *(0.023)*	1.973*** *(0.016)*	1.958*** *(0.027)*
R-sq.	0.039	0.033	0.035
N (person years)	15,019	36,884	15,557

Significance denoted by:

*** .001;

** .01;

* .05.

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Table 4

Random Effects Analysis of **Depression** Regressed on Consumer Debt by Social Class and Recession, NLSY-97 (1997–2009).

	Lower-class		Middle-class		Upper-class	
	Pre-recession	Recession	Pre-recession	Recession	Pre-recession	Recession
	b/se	b/se	b/se	b/se	b/se	b/se
Carry consumer debt balance	0.025 *(0.020)*	0.038* *(0.020)*	−0.005 *(0.009)*	0.003 *(0.012)*	0.000 *(0.014)*	0.015 *(0.016)*
Amount of balance	0.002 *(0.003)*	−0.000 *(0.002)*	0.002* *(0.001)*	0.004*** *(0.001)*	0.001 *(0.002)*	0.003 *(0.002)*
Parent	−0.013 *(0.017)*	0.050** *(0.024)*	−0.012 *(0.011)*	0.011 *(0.013)*	−0.018 *(0.019)*	0.030 *(0.019)*
Married	−0.029* *(0.015)*	−0.017 *(0.017)*	−0.058*** *(0.008)*	−0.056*** *(0.010)*	−0.062*** *(0.012)*	−0.063*** *(0.013)*
Employed	−0.042*** *(0.014)*	−0.065*** *(0.016)*	−0.014 *(0.011)*	−0.043*** *(0.015)*	−0.016 *(0.017)*	0.006 *(0.028)*
Female	0.170*** *(0.021)*	0.177*** *(0.026)*	0.139*** *(0.011)*	0.120*** *(0.015)*	0.131*** *(0.017)*	0.116*** *(0.022)*
White	0.053** *(0.022)*	0.043 *(0.027)*	0.026** *(0.012)*	0.035** *(0.015)*	0.038** *(0.018)*	0.046** *(0.023)*
College graduate (4 year)	−0.037 *(0.026)*	−0.024 *(0.034)*	−0.040*** *(0.012)*	−0.033** *(0.015)*	−0.066*** *(0.014)*	−0.028 *(0.020)*
Constant	1.937*** *(0.021)*	1.911*** *(0.029)*	1.852*** *(0.014)*	1.885*** *(0.021)*	1.835*** *(0.023)*	1.799*** *(0.035)*
R-sq.	0.031	0.036	0.024	0.025	0.029	0.028
N (person years)	9,805	5,215	25,121	11,772	10,287	5,270

Significance denoted by:

*** .001;

** .01;

* .05.

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Table 5

Random Effects Analysis of **Anxiety** Regressed on Consumer Debt by Social Class and Recession, NLSY-97 (1997–2009).

	Lower-class		Middle-class		Upper-class	
	Pre-recession	Recession	Pre-recession	Recession	Pre-recession	Recession
	b/se	b/se	b/se	b/se	b/se	b/se
Carry consumer debt balance	0.034 *(0.023)*	0.054** *(0.024)*	–0.008 *(0.011)*	–0.001 *(0.014)*	0.005 *(0.017)*	0.019 *(0.019)*
Amount of balance	0.003 *(0.003)*	–0.001 *(0.002)*	0.004** *(0.001)*	0.006*** *(0.002)*	0.001 *(0.002)*	0.005** *(0.002)*
Parent	–0.028 *(0.020)*	0.092*** *(0.029)*	–0.015 *(0.013)*	–0.009 *(0.016)*	–0.020 *(0.023)*	0.035 *(0.023)*
Married	–0.009 *(0.017)*	0.015 *(0.021)*	–0.032*** *(0.010)*	–0.032*** *(0.011)*	–0.049*** *(0.014)*	–0.023 *(0.016)*
Employed	–0.050*** *(0.016)*	–0.086*** *(0.018)*	–0.024* *(0.013)*	–0.058*** *(0.018)*	–0.046** *(0.020)*	–0.024 *(0.033)*
Female	0.197*** *(0.023)*	0.202*** *(0.031)*	0.191*** *(0.013)*	0.176*** *(0.018)*	0.195*** *(0.020)*	0.161*** *(0.026)*
White	0.123*** *(0.025)*	0.115*** *(0.033)*	0.084*** *(0.013)*	0.082*** *(0.018)*	0.084*** *(0.021)*	0.096*** *(0.027)*
College graduate (4 year)	–0.064** *(0.031)*	0.021 *(0.042)*	–0.053*** *(0.015)*	–0.012 *(0.018)*	–0.052*** *(0.017)*	0.001 *(0.026)*
Constant	2.034*** *(0.024)*	2.014*** *(0.034)*	1.972*** *(0.017)*	2.025*** *(0.025)*	1.982*** *(0.027)*	1.954*** *(0.042)*
R-sq.	0.035	0.035	0.035	0.035	0.035	0.035
N (person years)	9,805	5,214	25,116	11,768	10,287	5,270

Significance denoted by:

*** .001;

** .01;

* .05.