Appendix

2012 LIVESTRONG survey items used in the study analysis

Have you or has anyone in your family had to borrow money or go into debt because of your cancer, its treatment, or the lasting effects of that treatment?
( ) Yes
( ) No

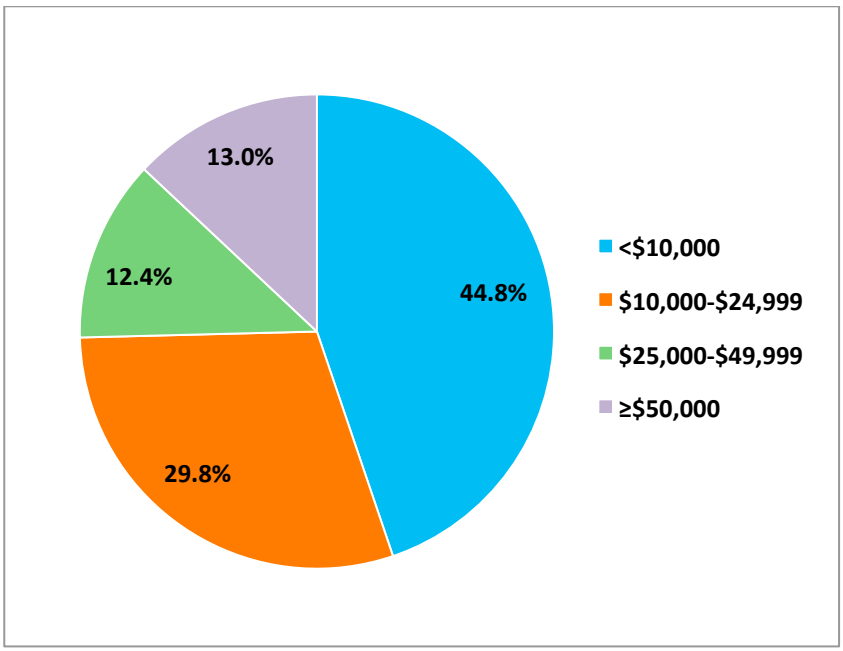
How much did you or your family borrow, or how much debt did you incur because of your cancer, its treatment, or the lasting effects of that treatment?
( ) Less than $10,000
( ) $10,000 to $24,999
( ) $25,000 to $49,999
( ) $50,000 to $74,999
( ) $75,000 to $99,999
( ) $100,000 or more

Did you or your family ever file for bankruptcy because of your cancer, its treatment, or the lasting effects of that treatment?
( ) Yes
( ) No

Have you or your family had to make any other kinds of financial sacrifices because of your cancer, its treatment, or the lasting effects of that treatment?
( ) Yes (please describe): _____
( ) No

Have you ever worried about having to pay large medical bills related to your cancer?
( ) Yes
( ) No

Because of your cancer, its treatment or the lasting effects of that treatment, did you have any out-of-pocket costs in the following categories? *Select all that apply.*
[ ] Medications and/or durable medical equipment or supplies
[ ] Medical expenses (For example, physician co-pays or facility charges)
[ ] Transportation
[ ] Lodging
[ ] Child care
[ ] Home or respite care
[ ] I had no out-of-pocket costs
[ ] I don't know/I am not sure



Amount of Debt Incurred among Cancer Survivors who Reported Going Into Debt (in U.S. Dollars). Notes: Estimates are based on participants who responded "yes" to "Have you or has anyone in your family had to borrow money or go into debt because of your cancer, its treatment, or the lasting effects of that treatment?" and who had valid, non-missing responses to the question "How much did you or your family borrow, or how much debt did you incur because of your cancer, its treatment, or the lasting effects of that treatment?" (n=1,558). Among the 1,583 participants who reported to have borrowed money or gone into debt, there were 25 participants with missing information on the question of the amount of debt incurred.

Risk Factors for Debt and Bankruptcy

	Borrow Money/Debt n=4,504	Bankruptcy n=4,504
	OR [95% CI]	OR [95% CI]
Age, years[a,b]		
55-64	Ref.	Ref.
45-54	1.66 [1.40, 1.98] ***	1.86 [1.15, 3.01] **
18-44	2.07 [1.73, 2.47] ***	1.81 [1.10, 2.98] **
Sex/Marital Status[a]		
Male, married	Ref.	Ref.
Male, non-married	1.37 [1.05, 1.79] **	1.52 [0.81, 2.84]
Female, married	1.26 [0.97, 1.63]	0.83 [0.46, 1.49]
Female, non-married	1.56 [1.22, 2.01] ***	0.99 [0.55, 1.80]
Race/ethnicity[c]		
White, NH	Ref.	Ref.
Black, NH	0.80 [0.50, 1.26]	2.25 [0.98, 5.17]
Hispanic	1.41 [1.06, 1.87] **	0.87 [0.42, 1.78]
Other	1.00 [0.72, 1.38]	1.01 [0.45, 2.27]
Annual Household Income, dollars [a,b,d]		
≥80,000	Ref.	Ref.
41,000-80,000	2.46 [2.08, 2.92] ***	2.80 [1.71, 4.60] ***
≤40,000	3.52 [2.82, 4.39] ***	4.50 [2.56, 7.93] ***
Unknown	0.92 [0.73, 1.15]	0.49 [0.19, 1.29]
Employment Status[a]		
Full-time	Ref.	Ref.
Part-time/Student	1.03 [0.83, 1.29]	1.28 [0.71, 2.31]
Unemployed	1.28 [1.04, 1.57] **	1.74 [1.04, 2.91] **
Retired	0.51 [0.38, 0.70] ***	1.00 [0.45, 2.22]
Other	1.75 [1.41, 2.17] ***	1.34 [0.75, 2.39]
Health Insurance[a]		
Private[e]	Ref.	Ref.
Public	1.95 [1.50, 2.54] ***	1.82 [1.08, 3.06] **
Uninsured	2.46 [1.64, 3.69] ***	1.05 [0.45, 2.44]
Other	1.21 [0.87, 1.67]	0.99 [0.45, 2.18]
Number of Cancer Diagnoses[f]		
1	Ref.	Ref.
≥2	1.49 [1.28, 1.74] ***	2.00 [1.38, 2.90] ***
Time Since Last Treatment, years		
<1	Ref.	Ref.
1-2	0.92 [0.77, 1.10]	1.21 [0.74, 1.98]
3-5	0.97 [0.80, 1.18]	1.71 [1.01, 2.87] **
6+	0.82 [0.68, 0.99] **	1.65 [1.00, 2.73] **

SOURCE: Authors' analysis of data from the Livestrong 2012 survey.
NOTES: Estimates are based on all participants who had valid, non-missing values for each variable included in the final model (n=4,504). There were 215 participants from the total study sample (n=4,719) that were missing information on at least one of the variables included in the regression and were excluded from this analysis. Odds ratios are based on multivariable logistic regression models adjusted for current age, sex/married (interaction term), race/ethnicity, annual household income, employment status, health insurance, cancer type, number of cancers diagnoses, years since first cancer diagnosis and years since last treatment. Separate logistic regression models were used for each binary outcome: "Have you or has anyone in your

family had to borrow money or go into debt because of your cancer, its treatment, or the lasting effects of that treatment?" and "Did you or your family ever file for bankruptcy because of your cancer, its treatment, or the lasting effects of that treatment?" Ref. is Referent category. NH is Non-Hispanic. a F-test for trend is significant at the 0.05 level for Borrow Money/Debt. b F-test for trend is significant at the 0.05 level for Bankruptcy. c "Other" category for race/ethnicity includes American Indian, Alaskan Native, Asian Indian, Native Hawaiian, Chinese, Korean, Guamanian or Chamorro, Filipino, Vietnamese, Samoan, Other Asian, Other Pacific Islander and Some other race. d The annual household income variable is based on the response options to this item in the survey: $0-40,000; $41,000-$80,000; $81,000-$100,000; $101,000-$120,000; "Prefer not to answer"; and "I don't know." e Private insurance includes private, employer-based, and military insurance. f Survivors who reported having more than one cancer may include individuals who were diagnosed with a second primary cancer or recurrence of their first primary cancer. **p<0.05 ***p<0.001.

Specifications for Regression Analysis of Debt
Stata version 13.1.

```
*--------+---------+---------+---------+---------+---------
/// Regression model independent variables

agecat_rev: Age, years
            0 55-64
            1 45-54
            2 18-44

sexmar: Sex/Marital Status
            0 male/married
            1 male/notmarried
            2 female/married
            3 female/notmarried

racethn_4cat: Race/ethnicity
            0 NHW
            1 Hisp
            2 NHB
            3 Other (AI/AN/API/Other)

income_rev3cat: Annual Household Income, dollars
            0 >$80,000
            1 $41,000-80,000
            2 <=$40,000
            3 other

emp_rec2: Employment Status
            0 Fulltime
            1 Parttime/Student
            2 Unemployed
            3 Retired
            4 Other

USinsur2: Health Insurance
            0 Private
            1 Public
            2 Uninsured
            3 Other

morethan1dx: Number of Cancer Diagnoses
            0 No
            1 Yes
```

Specifications for Regression Analysis of Debt (continued)
Stata version 13.1.

```
*--------+---------+---------+---------+---------+---------
/// Regression model independent variables

yrsincetx_cat: Time Since Last Treatment, years
           0 <1yr
           1 1-2yrs
           2 3-5yrs
           3 >5

*--------+---------+---------+---------+---------+---------
/// Regression model dependent variable

debt: Ever borrow money or go into debt
           0 No
           1 Yes
```

Final Regression Model for Debt Analysis (Specification and output)
Stata version 13.1.

```
*--------+---------+---------+---------+---------+---------

logistic debt i.agecat_rev i.sexmar i.racethn_4cat  i.income_rev3cat
i.emp_rec2 i.USinsur2 morethan1dx i.yrsincetx_cat

Logistic regression
Number of obs   = 4504
LR chi2(22)     = 594.59
Prob > chi2     = 0.0000
Log likelihood  = -2580.9788
Pseudo R2       = 0.1033
------------------------------------------------------------
debt | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------------+----------------------------------------
agecat_rev|
45-54| 1.663607   .1478462     5.73   0.000     1.397667    1.980148
18-44| 2.07043   .1883292     8.00   0.000     1.732344    2.474498

sexmar|
male/notmarried| 1.368817   .1875815     2.29   0.022     1.046399
   1.790578
female/married| 1.25846   .1641976     1.76   0.078     .9744933    1.625174
female/notmarried| 1.562793   .1992914     3.50   0.000     1.217178
   2.006545

racethn_4cat|
Hisp| 1.407877   .2037863     2.36   0.018     1.060122    1.869708
NHB| .7956181   .1861658    -0.98   0.329     .5029595    1.258567
Other| .9970156   .1639268    -0.02   0.985     .7223531    1.376114

income_rev3cat|
$41,000-80,000| 2.46241   .2137963    10.38   0.000     2.077092    2.919209
<=$40,000| 3.518326   .3976703    11.13   0.000     2.819202    4.390823
other| .9182252   .1045698    -0.75   0.454     .7345346    1.147853

emp_rec2|
Parttime/Student| 1.031714   .1166152     0.28   0.782     .8266991
   1.287571
Unemployed| 1.27835   .1360765     2.31   0.021     1.037629    1.574917
Retired| .5144163   .0810629    -4.22   0.000     .3777291    .7005658
Other| 1.75091   .1910886     5.13   0.000      1.41373    2.168508

USinsur2|
Public| 1.948397   .2632881     4.94   0.000     1.495044    2.539223
Uninsured| 2.460573    .510017     4.34   0.000      1.63909    3.693768
Other| 1.205126   .1987535     1.13   0.258     .8722665    1.665005

morethan1dx| 1.489639    .116334     5.10   0.000     1.278222    1.736025

yrsincetx_cat|
1-2yrs| .92337   .0834337    -0.88   0.378     .7735049    1.102271
3-5yrs| .9692017   .0973493    -0.31   0.755     .7960075    1.180079
>5| .821114   .0787607    -2.05   0.040     .6803883    .9909463

_cons| .1217828   .0201167   -12.75   0.000     .0881008    .1683418
------------------------------------------------------------
```

```
/// F-test for trend for all independent variables in Debt Analysis
. test 1.agecat_rev 2.agecat_rev
( 1)  [debt]1b.agecat_rev = 0
( 2)  [debt]2.agecat_rev = 0
Constraint 1 dropped
chi2(  1) = 32.80
Prob > chi2 = 0.0000

. test 1.sexmar 2.sexmar 3.sexmar
( 1)  [debt]1.sexmar = 0
( 2)  [debt]2.sexmar = 0
( 3)  [debt]3.sexmar = 0
chi2(  3) =   13.62
Prob > chi2 =    0.0035

. test 1.racethn_4cat 2.racethn_4cat 3.racethn_4cat
( 1)  [debt]1.racethn_4cat = 0
( 2)  [debt]2.racethn_4cat = 0
( 3)  [debt]3.racethn_4cat = 0
chi2(  3) =    6.82
Prob > chi2 =    0.0780

. test 1.income_rev3cat 2.income_rev3cat 3.income_rev3cat
( 1)  [debt]1.income_rev3cat = 0
( 2)  [debt]2.income_rev3cat = 0
( 3)  [debt]3.income_rev3cat = 0
chi2(  3) =  199.57
Prob > chi2 =    0.0000

. test 1.emp_rec2 2.emp_rec2 3.emp_rec2
( 1)  [debt]1.emp_rec2 = 0
( 2)  [debt]2.emp_rec2 = 0
( 3)  [debt]3.emp_rec2 = 0
chi2(  3) =   29.10
Prob > chi2 =    0.0000

. test 1.USinsur2 2.USinsur2
( 1)  [debt]1.USinsur2 = 0
( 2)  [debt]2.USinsur2 = 0
chi2(  2) =   37.82
Prob > chi2 =    0.0000

. test 1.yrsincetx_cat 2.yrsincetx_cat 3.yrsincetx_cat
( 1)  [debt]1.yrsincetx_cat = 0
( 2)  [debt]2.yrsincetx_cat = 0
( 3)  [debt]3.yrsincetx_cat = 0
chi2(  3) =    4.67
Prob > chi2 =    0.1977
```

Specifications for Regression Analysis of Bankruptcy
Stata version 13.1.

```
*--------+---------+---------+---------+---------+--------
 /// Regression model independent variables

agecat_rev: Age, years
            0 55-64
            1 45-54
            2 18-44

sexmar: Sex/Marital Status
            0 male/married
            1 male/notmarried
            2 female/married
            3 female/notmarried

racethn_4cat: Race/ethnicity
            0 NHW
            1 Hisp
            2 NHB
            3 Other (AI/AN/API/Other)

income_rev3cat: Annual Household Income, dollars
            0 >$80,000
            1 $41,000-80,000
            2 <=$40,000
            3 other

emp_rec2: Employment Status
            0 Fulltime
            1 Parttime/Student
            2 Unemployed
            3 Retired
            4 Other

USinsur2: Health Insurance
            0 Private
            1 Public
            2 Uninsured
            3 Other

morethan1dx: Number of Cancer Diagnoses
            0 No
            1 Yes
```

Specifications for Regression Analysis of Bankruptcy (continued)
Stata version 13.1.

```
*--------+---------+---------+---------+---------+--------
 /// Regression model independent variables

yrsincetx_cat: Time Since Last Treatment, years
           0 <1yr
           1 1-2yrs
           2 3-5yrs
           3 >5

*--------+---------+---------+---------+---------+---------

 /// Regression model dependent variables

bankrupt2: Ever file bankruptcy
           0 No
           1 Yes
```

Final Regression Model for Bankruptcy Analysis (Specification and output)
Stata version 13.1.

```
*--------+---------+---------+---------+---------+--------

logistic bankrupt2 i.agecat_rev i.sexmar i.racethn_4cat  i.income_rev3cat
i.emp_rec2 i.USinsur2 morethan1dx i.yrsincetx_cat

Logistic regression
Number of obs   = 4504
LR chi2(22)     = 119.61
Prob > chi2     = 0.0000
Log likelihood = -546.65477
Pseudo R2       = 0.0986
------------------------------------------------------------
bankrupt2 | Odds Ratio   Std. Err.      z    P>|z|     [95% Conf. Interval]
------------------+-----------------------------------------
agecat_rev|
45-54| 1.857541   .4563918     2.52   0.012     1.147627    3.006601
18-44| 1.811258   .4604386     2.34   0.019     1.100517    2.981011

sexmar|
male/notmarried| 1.520925    .485077     1.31   0.189     .8140092
   2.841752
female/married| .8258871   .2475271    -0.64   0.523     .4589936    1.486055
female/notmarried| .9913584   .3025556    -0.03   0.977      .545067
   1.803065

racethn_4cat|
Hisp| .8654256   .3180861    -0.39   0.694     .4210869    1.778639
NHB| 2.248327   .9548736     1.91   0.056     .9780267    5.168544
Other| 1.013235   .4163983     0.03   0.974     .4527944    2.267354

income_rev3cat|
$41,000-80,000| 2.803054   .7077368     4.08   0.000     1.708888    4.597793
<=$40,000| 4.500958   1.300073     5.21   0.000     2.555293      7.9281
other| .4919443   .2424239    -1.44   0.150     .1872641    1.292341
emp_rec2|
Parttime/Student| 1.27724   .3853091     0.81   0.417     .7071117
   2.307051
Unemployed| 1.736126   .4563587     2.10   0.036     1.037132    2.906219
Retired| .9989679   .4081474    -0.00   0.998     .4485149     2.22498
Other| 1.341888   .3953896     1.00   0.318     .7531965    2.390696

USinsur2|
Public| 1.818526   .4839141     2.25   0.025     1.079476    3.063559
Uninsured| 1.045214   .4518067     0.10   0.919     .4479845     2.43864
Other| .9931032    .399426    -0.02   0.986     .4514828    2.184477

morethan1dx| 1.997423   .3783142     3.65   0.000     1.378008    2.895267

yrsincetx_cat|
1-2yrs| 1.21278   .3039264     0.77   0.441       .74211    1.981964
3-5yrs| 1.706696   .4531427     2.01   0.044     1.014273    2.871823
>5| 1.649461   .4243448     1.95   0.052     .9962302    2.731018

_cons| .0043253   .0019413   -12.13   0.000     .0017946    .0104243
------------------------------------------------------------
```

```
/// F-test for trend for all independent variables in Bankruptcy Analysis
. test 1.agecat_rev 2.agecat_rev
( 1)  [bankrupt2]1b.agecat_rev = 0
( 2)  [bankrupt2]2.agecat_rev = 0
Constraint 1 dropped
chi2(  1) = 6.35
Prob > chi2 = 0.0117

. test 1.sexmar 2.sexmar 3.sexmar
( 1)  [bankrupt2]1.sexmar = 0
( 2)  [bankrupt2]2.sexmar = 0
( 3)  [bankrupt2]3.sexmar = 0
chi2(  3) = 5.53
Prob > chi2 = 0.1368

. test 1.racethn_4cat 2.racethn_4cat 3.racethn_4cat
( 1)  [bankrupt2]1.racethn_4cat = 0
( 2)  [bankrupt2]2.racethn_4cat = 0
( 3)  [bankrupt2]3.racethn_4cat = 0
chi2(  3) =    3.93
Prob > chi2 =    0.2691

. test 1.income_rev3cat 2.income_rev3cat 3.income_rev3cat
( 1)  [bankrupt2]1.income_rev3cat = 0
( 2)  [bankrupt2]2.income_rev3cat = 0
( 3)  [bankrupt2]3.income_rev3cat = 0
chi2(  3) = 40.38
Prob > chi2 = 0.0000

. test 1.emp_rec2 2.emp_rec2 3.emp_rec2
( 1)  [bankrupt2]1.emp_rec2 = 0
( 2)  [bankrupt2]2.emp_rec2 = 0
( 3)  [bankrupt2]3.emp_rec2 = 0
chi2(  3) = 4.92
Prob > chi2 = 0.1777

. test 1.USinsur2 2.USinsur2
( 1)  [bankrupt2]1.USinsur2 = 0
( 2)  [bankrupt2]2.USinsur2 = 0
chi2(  2) = 5.29
Prob > chi2 = 0.0711

. test 1.yrsincetx_cat 2.yrsincetx_cat 3.yrsincetx_cat
( 1)  [bankrupt2]1.yrsincetx_cat = 0
( 2)  [bankrupt2]2.yrsincetx_cat = 0
( 3)  [bankrupt2]3.yrsincetx_cat = 0
chi2(  3) = 5.74
Prob > chi2 = 0.1251
```