Training and Education in Professional Psychology
2016, Vol. 10, No. 1, 3–13

1931-3918/16/$12.00 http://dx.doi.org/10.1037/tep0000112

Graduate Debt in Psychology: A Quantitative Analysis

Jennifer M. Doran
The New School for Social Research

Amanda Kraha
Indiana University East

Laura Reid Marks
Purdue University

Edward J. Ameen and Nabil Hassan El-Ghoroury
American Psychological Association, Washington, DC

Student loan debt has become an issue of national concern in the context of rapidly increasing higher education costs. Graduate education can be prohibitively expensive, particularly at the doctoral level. The present study provides an updated and comprehensive analysis of the financial circumstances and debt loads related to pursuing a graduate degree in psychology. The study surveyed a random sample of graduate students and early career psychologists (ECPs) listed in the American Psychological Association membership database. Participants were asked about their debt loads for educational costs, sources of financial support, living circumstances, financial stress, and the impact of student loan debt on their personal and professional lives. The results indicate that current debt loads are substantially higher than what has been previously reported (Michalski, Kohout, Wicherski, & Hart, 2011), with some variation by subfield and type of degree. A number of participants endorsed significant financial stress, as well as having to delay major life milestones because of their debt. While education costs and loan debt have continued to increase, starting salaries appear relatively stagnant, suggesting the need for a thoughtful cost/benefit analysis of graduate education in psychology. The psychology community is urged to increase awareness of and advocate for these issues, with several specific advocacy steps recommended.

Keywords: graduate education, psychology, debt, student loans

Supplemental materials: http://dx.doi.org/10.1037/tep0000112.supp

The cost of postsecondary education in the United States is rising. In the past three decades, accounting for inflation, the cost of higher education has increased by 250% (Baum & Ma, 2012). Student debt in the United States now exceeds $1 trillion, with $860 billion of this amount accounted for by federal loans (Johnson, VanOstern, & White, 2012). This amount presently exceeds the amount of credit card debt in the United States (Elmer, 2012). From 2013 to 2014 alone, outstanding student loan balances increased by $8 billion nationally (Federal Reserve Bank of New York, 2014). An analysis of Department of Education data recently reported that the majority of this student debt originates from individuals seeking graduate (e.g., master's and doctoral) and professional degrees, with 40% of recent federal loan borrowers being current graduate students (Delisle, 2014). A comprehensive debt review found that graduate student debt saw a dramatic increase between 2004 and 2012. The median debt of borrowers in 2004 who earned a Master of Arts degree was $38,000, compared with $59,000 in 2012, with similar trends for borrowers who earned other master's degrees (Delisle, 2014).

JENNIFER M. DORAN, MA is a doctoral candidate in the Department of Psychology at The New School for Social Research in New York City. She is currently affiliated with the VA Connecticut Healthcare System. Her areas of interest include training and education in professional psychology, psychotherapy process and outcome research, traumatic stress and the treatment of PTSD.

AMANDA KRAHA, PhD received her doctorate in experimental psychology from the University of North Texas. She is an Assistant Professor at Indiana University East. Her current research interests include statistical methodology and online teaching and learning.

LAURA REID MARKS, PhD is currently an Assistant Professor in the Department of Counseling, Educational Psychology, and Research at The University of Memphis in Memphis, TN. She was previously a doctoral student in counseling psychology at Purdue University, where she was affiliated when this research project was completed. Her areas of research interest are student career development and health disparities.

EDWARD J. AMEEN, PhD, (University of Miami, Counseling Psychology), is the Assistant Director of the American Psychological Association of Graduate Students. His areas of interest are in social justice for marginalized populations through collective action.

NABIL HASSAN EL-GHOROURY, PhD is currently the Associate Executive Director of the American Psychological Association of Graduate Students in Washington, DC. His areas of interest are autism spectrum disorders, multicultural issues, social networking, and graduate student development.

CORRESPONDENCE CONCERNING THIS ARTICLE should be addressed to Jennifer M. Doran, The New School for Social Research, 80 5th Avenue, 6th Floor, New York, NY 10011. E-mail: jenniferdoran520@gmail.com

Federal Loans

Rising educational costs have been a side effect of the economic recession that occurred in the 2000s. This recession led to an increase in tuition costs, as well as changes in the federal loan structure (Johnson et al., 2012). Such changes to Federal Stafford loans have resulted in graduate education becoming more expensive. With *subsidized loans,* while a student is enrolled half time or higher, the U.S. Department of Education pays the interest on the loan. Alternatively, with *unsubsidized loans,* if the student decides not to pay the interest while enrolled in school, or in the six month grace period following graduation, the interest will accrue and become capitalized (Federal Student Aid, 2015).

Until 2012, undergraduate and graduate students were eligible to receive both subsidized and unsubsidized federal loans. With changes in the federal loan structure, only undergraduate students are presently eligible for subsidized federal loans. This results in the total amount of loan repayment becoming larger for graduate students, and may necessitate larger numbers of graduate students having to borrow from private loan companies, as there are caps on unsubsidized loans (graduate students are eligible for up to $20,500 a year, not to exceed a total of $138,000).[1] Private student lending is very concerning, as the typically higher interest rates can be financially crippling for borrowers (Johnson et al., 2012).

Other changes to federal loans have also emerged that make it more difficult for student borrowers. In 2007, Congress passed a bill that essentially ended an interest rate cut for graduate student loans, meaning rates increased from 3.4% to 6.8% beginning in the 2008–2009 academic year (Delisle, 2012). In 2013, The Bipartisan Student Loan Certainty Act changed the way in which student loan interest rates were structured. More specifically, the bill connects interest rates on new federal loans to the 10 year Treasury rate, with a fixed margin. Although interest rates are fixed for the life of federal loans, loan rates for newly disbursed loans will change on an annual basis based on current market rates (Federal Student Aid, 2015). These market fluctuations may make it more complicated for students trying to financially prepare for graduate school.

Doctoral Education in Psychology

The cost of doctoral-level education has seen dramatic increases in the United States. The average cost of earning a doctoral degree increased by more than 50% between 1995 and 2003 (Council of Graduate Schools, 2006). Pursuing a doctoral degree in psychology is typically a long and expensive endeavor, with multiple years of specialized training required to obtain a degree and license to practice. In 2007, nearly 80% of recent graduates reported debt related to graduate training, over and above existing undergraduate debt (American Psychological Association, 2009a). Between the 2007–2008 and 2009–2010 training years, the average tuition for nonresident doctoral students in psychology increased from $18,917 to $21,317, 12.7% over the 2-year period. Over the same time period, the average nonresident master's tuition increased from $14,373 to $15,888, an increase of 10.5% (American Psychological Association, 2015).

Shifts in available support for psychology training have exacerbated existing difficulties. In the 1970s, nearly 30% of clinical psychology doctoral students funded their training through federal training grants, citing this as the major source of support for their education (Coyle & Bae, 1987). In contrast, in the 2000s, federal sources reportedly supported less than 4% of full-time graduate students in psychology (Wicherski & Kohout, 2005). With external sources of support steadily decreasing, graduate students are expected to find financing elsewhere, such as by using personal and family resources, through loans, or by obtaining competitive university-based financial aid (Norcross & Sayette, 2014). Adjusting for inflation, in the 1960s and 1970s, accumulated loans were lower and the average graduate stipend was higher, with the average stipend amount decreasing 36% over the past 30 years (Golding, Lang, Eymard, & Shadish, 1988), reflecting a strong "pay more, earn less" trend.

A survey in the mid 1990s found that nearly half of psychology doctoral students received no financial support at all from their institution (Gehlmann, Wicherski, & Kohout, 1995). Differences in funding exist within types of programs and subfields of psychology. There is a substantial difference in funding availability based on enrollment in a clinical or research-oriented program. Approximately 1% to 10% of clinical PsyD students receive both a tuition waiver and a full assistantship during their training, while 89% of research doctoral-level students receive this level of funding. Students in PhD programs with an equal emphasis on clinical and research work tend to fall in the middle, with 54% receiving a comparable level of support (Norcross, Ellis, & Sayette, 2010). The most recent data comes from the American Psychological Association's 2009 Doctorate Employment Survey (American Psychological Association, 2009a; Michalski et al., 2011). At this time, nearly 80% of graduates who ended up working in health service settings had educational debt, compared with nearly 50% of those in research/academic subfields. These data found the highest median debt level for PsyD students, at $120,000, with the median for clinical doctoral-level students at $68,000. Research-oriented PhD graduates reported the lowest debt levels overall, with the median at $38,500. Furthermore, approximately one third of recent PsyD graduates reported having educational debt in excess of $150,000 (Michalski et al., 2011).

Median annual starting salaries for psychology doctoral graduates are approximately $60,000 (Pate & Finno, 2009). In 2009, the median first-year salary across all positions was $64,000 ($M$ = $66,008, SD = $23,861), with median starting salaries for most positions falling between $50,000 and $70,000 (American Psychological Association, 2009a; Michalski et al., 2011). At 5 to 9 years postdoctorate in the same year, the median salary was just over $76,000 (Finno, Michalski, Hart, Wicherski, & Kohout, 2010). These are relatively low figures, particularly when compared with the large amounts of debt new graduates face (Norcross & Sayette, 2014).

[1] There is an exception to this cap for a small proportion of students in health service professions, such as clinical psychology doctoral students enrolled in American Psychological Association-accredited programs. These students have a lifetime borrowing limit of $224,000 (Federal Student Aid, 2015). It is important to note that students in counseling psychology programs are excluded from this exception. Additionally, students are eligible for the same amount of federal loans despite the type of institution they attend (public or private) or their geographic location (which impacts cost of living).

The Present Study

Existing financial and debt data for psychology doctoral students are somewhat opaque and outdated, with graduates last surveyed in 2009 (Michalski et al., 2011). Debt surveys typically only include graduate debt loads, failing to account for preexisting undergraduate debt. The specific breakdowns of debt (tuition vs. living expenses) are also unknown. Examining recent, representative data offers the opportunity to more fully understand the nature of graduate debt and finances. The present study aims to comprehensively survey graduate students and early career psychologists (ECPs) about their total debt amounts, their financial literacy, the impact of their debt on their life circumstances, and the experience of repaying their loans on new graduate salaries. Given the increased cost of higher education and recent changes to the federal loan structure, it was hypothesized that current debt loads would be substantially higher than what has been previously reported. It was also hypothesized that participants would report experiencing financial stress, and that their debt would have a significant impact on their lives and ability to achieve major life milestones.

Method

Procedure

The research team used the American Psychological Association's membership database to send 5,000 electronic survey invitations to current graduate students and 5,000 invitations to ECPs, defined as psychologists who graduated in the past 10 years. Participant selection was randomized, with the aim of selecting a representative sample. Participants were excluded if they never attended a graduate program in psychology, did not currently reside in the United States, and/or were listed as international members/affiliates. After accounting for incorrect, unsubscribed, and expired e-mail addresses, the invitation was delivered to 9,422 individuals. Participants received an initial solicitation e-mail, and nonresponders received reminders after 1, 2, and 3 weeks. The survey closed approximately 1 month after it opened. A total of 25 individuals did not qualify to participate, 328 partially completed the survey, and 1,283 individuals fully completed the survey. The response rate for complete responses was 13.6%, which is comparable with similar Internet-based surveys (e.g., El-Ghoroury, Galpher, Sawaqdeh, & Bufka, 2012).

Measures

A comprehensive survey was designed for the purposes of the present study. The structure of the survey, subfield categorizations, and several questions were modeled after or borrowed from the American Psychological Association's Doctorate Employment Survey (Michalski et al., 2011). The survey contained a total of 84 questions, and skip-logic technology was employed so that graduate students and ECPs answered different (or different versions of) questions.[2] Graduate students and ECPs therefore answered approximately 65 questions each. The American Psychological Association Center for Workforce Studies provided editorial support throughout the survey construction process. The survey was designed and administered through the Survey Gizmo online data collection service.

The survey collected demographic and descriptive information, and then assessed information across four broad domains—debt load, average costs per year for tuition and other expenses, sources of financial support, and the impact of debt on participants' personal and professional lives. Pertaining to debt, participants were asked about the presence and amount of undergraduate and graduate school debt, as well as the percentage of debt that was attributable to different sources (e.g., federal vs. private loans). Participants were asked to calculate direct (tuition) and indirect (books, conference travel) educational costs, as well as to parse out the amount of loans they required to cover their basic living expenses during their training. Information about financial support was obtained, including university-based support (such as stipends, tuition remission, and conference funding), support from family members, personal savings, extramural employment, and federal and private loans. Finally, participants were asked to rate their levels of financial stress and provide information about the impact of debt on their personal and professional lives, such as delaying major life milestones (e.g., getting married, buying a home, having children). ECP participants were also asked to provide information about their starting and current salaries, as well as their perceived ability to meet their financial requirements (including loan repayment).

Participants

Participants consisted of 1,283 psychology graduate students (n = 592) and ECP members (n = 691) of the American Psychological Association. Participants represented all 50 states, the District of Columbia, Puerto Rico, and the Virgin Islands. The majority of the sample was female (78.0%), with ages ranging from 22 to 80 years old (M = 34.43, SD = 8.36; Mdn = 33.00). Relative to race and ethnicity, 84.4% identified as White or Caucasian, 6.9% as Black or African American, 6.7% identified as Hispanic or Latino, 6.1% as Asian or Asian American, 1.8% as American Indian or Alaska Native, 1.2% as Middle Eastern or North African, and 0.5% as Native Hawaiian or Pacific Islander. Roughly half of the sample (50.5%) indicated that they were the first in their family to pursue graduate study. Just over two thirds of all participants were married or in a long-term partnership (66.3%), whereas the remainder of participants were single (28.7%), divorced (4.0%), separated (0.7%), or widowed (0.3%). The characteristics of the present sample are representative of the general demographics for psychology graduate students and ECPs, as registered in American Psychological Association's membership database (American Psychological Association, 2009b, 2014c).[3] Table 1 includes complete demographic information.

Of the 592 graduate students, the majority (89.2%) were enrolled full time in graduate school, and most (62.3%) expected to complete at least 1 year of postdoctoral training upon graduation.

[2] Skip-logic technology will populate specific versions of questions (e.g. "do you" versus "did you") based on respondents' initial selection of student or ECP status.

[3] Refer to the supplementary material online for a table that compares American Psychological Association graduate student and ECP membership data with the present sample (Table 10).

Table 1
Demographic Information

	Students		ECPs		Total	
	N	%	*N*	%	*N*	%
Gender						
Male	129	21.8	151	22.0	280	21.9
Female	463	78.2	534	77.7	997	78.0
Transgender	0	.0	2	.3	2	.2
Total	592	100.0	687	100.0	1279	100.0
Age						
Under 25	28	4.7	0	.0	28	2.2
25–29	317	53.5	68	9.9	385	30.1
30–34	136	23.0	214	31.1	350	27.3
35–39	36	6.1	239	34.7	275	21.5
40–44	35	5.9	68	9.9	103	8.0
45–49	15	2.5	37	5.4	52	4.1
50–54	11	1.9	24	3.5	35	2.7
55–59	9	1.5	22	3.2	31	2.4
60 or older	5	.8	17	2.5	22	1.7
Total	592	100.0	689	100.0	1281	100.0
Race/ethnicity						
Hispanic or Latino(a)	50	8.6	35	5.1	85	6.7
Mexican or Mexican American	14	28.0	18	51.4	32	37.6
Puerto Rican	9	18.0	4	11.4	13	15.3
Cuban or Cuban American	5	10.0	1	2.9	6	7.1
Other Hispanic, Latino(a), or Spanish	26	52.0	13	37.1	39	45.9
American Indian or Alaska Native	15	2.5	8	1.2	23	1.8
Asian or Asian American	41	6.9	37	5.4	78	6.1
Black or African American	54	9.1	35	5.1	89	6.9
Middle Eastern/ North African	6	1.0	10	1.4	16	1.2
Native Hawaiian or other Pacific Islander	4	.7	2	.3	6	.5
White or Caucasian	483	81.6	600	86.8	1083	84.4
Total	[a]	[a]	[a]	[a]	[a]	[a]
First-generation student						
Yes	311	52.5	335	48.5	646	50.5
No	281	47.5	351	50.8	632	49.5
Total	592	100.0	686	99.3	1278	100.0

[a] To thoroughly represent the range of diversity possible with respect to race/ethnicity, respondents were asked to choose all that apply for this question. Because of this, percentages will exceed 100%.

The majority of students in our sample were pursuing a PhD (62.7%), followed by a PsyD (31.6%) and various master's degrees (5.6%). The majority represented health service psychology, with 49.2% of students enrolled in clinical programs, followed most closely by 19.5% enrolled in counseling programs. Of the 691 ECPs, most (65.4%) hold a PhD, followed by PsyD (28.1%), or a master's degree (5.5%). The majority studied clinical psychology (51.6%), followed most closely by counseling psychology (18.0%).[4] All masters-level respondents were enrolled in or had completed terminal degrees.

Results

Financial Support for Graduate School

When considering support for education and training only, participants endorsed a number of sources of support. Among the most commonly endorsed for all sources were federal loans (73.7%), followed by income from university employment or graduate assistantships (66.3%). The primary source most commonly endorsed was federal loans (48.2%), followed again by income from university employment or graduate assistantships (26.4%). These results suggest that both students and ECPs most often rely/relied on funding from federal and university sources. Disparities emerged in specific types of support when comparing PhD students and ECPs to those from PsyD programs. While 40% of PhD respondents received university employment or a graduate assistantship, this was true for only 2% of PsyD respondents. Similar patterns emerged for university scholarships/fellowships (12.5% of PhD compared with 2% of PsyD respondents) and external grants or fellowships (3.4% for PhD compared with 0.8% of PsyD respondents).

Common sources of financial support for living expenses during graduate school again included income from university employment or graduate assistantship (59.5%) and federal loans (55.7%). Participants also endorsed support from family (53.3%) and personal savings (52.0%). The most commonly endorsed primary source of support for living expenses was federal loans (26.9%),

[4] Refer to the supplementary material online for a breakdown of degree information for the sample (Table 1).

followed closely by income from university employment or graduate assistantships.[5]

Living Conditions

Current students reported renting an apartment with a partner (34.8%), renting alone (21.5%), or owning a home (20.8%). ECPs, when asked to report their longest living situation while in graduate school, reported renting an apartment alone (29.9%), owning a home (29.5%), and renting with a partner (21.2%). A smaller proportion of respondents also reported renting with a roommate (students = 16.4%; ECPs = 16.7%) or living with family (students = 3.4%; ECPs = 2.8%). Current students reported an average monthly cost of $1,023.40 (*SD* = $657.33; *Mdn* = $900.00) for rent/mortgage and utilities. ECPs reported similar monthly costs of $1,034.01 (*SD* = $515.53; *Mdn* = $1,000.00) for rent and utilities while in graduate school. Current students reported minimal spending on personal vacation and leisure travel (*M* = $618.52, *Mdn* = $400.00, *SD* = $778.18). Results from ECPs show similar levels of leisure travel spending while in school (*M* = $550.26, *Mdn* = $275.00, *SD* = $737.18).

There were 1,085 students and ECPs who indicated their vehicle status on the survey. Of all participants, 85.37% (*n* = 1,085) reported owning or leasing a car in graduate school. Vehicle information was collected and coded using the standard value for good condition private resale from the *Kelley Blue Book* (2015). Unless otherwise noted by participants, the highest value/most expensive version of a specific car's make, model, and year was utilized in the analyses, for consistency. *Kelley Blue Book* (2015) values were not available for a subset (*n* = 233) of vehicles produced prior to the year 2000, the values of which would likely lower the aggregate estimates provided below. The median car or truck was or will be 10 years old by the time of graduation (*M* = 10, *SD* = 6). The median value (in 2015 dollars) of the 744 vehicles for which values were available was $6,500 (*M* = $8,405.75; *SD* = $6,264.03). Of the participants with a car, 39% were making monthly payments (*M* = $311.59; *SD* = $267.89), 30.98% had cars that were paid for in full (either by themselves or by another), and 30.01% were given or gifted their vehicle. Only 5.5% drove cars typically classified as "high end" (e.g., BMW, Lexus, Mercedes, Volvo).

Total Debt Load

Across all graduate students and ECPs in the current sample, 43.1% reported owing debt from their undergraduate training. Average levels of undergraduate debt were $28,905.96 (*Mdn* = $20,000.00, *SD* = $22,330.70). Of current graduate students, 48.9% reported owing undergraduate debt, with an average of $30,560.94 (*Mdn* = $25,000.00, *SD* = $23,241.70), compared with 38.2% of ECPs, who reported an average undergraduate debt of $27,079.55 (*Mdn* = $20,000.00, *SD* = $21,176.32).

Across all participants in the current sample, 78.7% reported debt related to graduate study in psychology.[6] Graduate students and ECPs attributed 75% and 68.5% of their loan debt, respectively, to direct educational costs (tuition and fees).[7] Average current debt for students actively enrolled was $100,603.79 (*Mdn* = $80,000.00, *SD* = $77,623.76) with anticipated final debt levels of $129,717.56 (*Mdn* = $110,000.00, *SD* = $92,694.51). Table 2 reports anticipated final debt levels for currently enrolled students by degree and subfield. ECPs reported total graduate school debt loads of $99,023.41 (*Mdn* = $80,000.00, *SD* = $73,139.64). Table 3 shows ECP debt load by degree and psychology subfield. No significant differences emerged when comparing total and anticipated debt loads by gender or race/ethnicity.

To further examine differences in debt load by degree, a new variable with three categories was created: (a) participants seeking a PsyD degree, (b) participants seeking a PhD degree in a health service profession (HSP) within psychology, and (c) participants seeking a PhD degree in research and other psychological subfields. This was also done for ECPs, for degrees already obtained. Analyses using these variables violated homogeneity of variance assumptions, so Brown-Forsythe *F* ratios are reported with Games-Howell post hoc tests.

Comparisons of anticipated graduate debt by degree category violated assumptions of homogeneity of variance per Levene's test, $F(2, 436) = 12.53$, $p < .001$. Results indicated differences in anticipated debt by degree type sought, $F(2, 392.70) = 54.14$, $p < .001$, $\eta^2 = .14$. Post hoc comparisons revealed that students seeking a PsyD degree (*M* = $173,239.29, *Mdn* = $160,000.00, *SD* = $78,711.10) have higher levels of anticipated debt than students seeking HSP PhDs (*M* = $111,590.14, *Mdn* = $76,500.00, *SD* = $96,561.01) and research and other PhDs (*M* = $68,684.21, *Mdn* = $72,500.00, *SD* = $43,977.33), both *p* values < .001.

Comparisons of final graduate debt reported by ECPs by degree earned also violated homogeneity of variance assumptions per Levene's test, $F(2, 485) = 18.25$, $p < .001$. Results indicated differences in final graduate debt by degree type sought, $F(2, 282.30) = 61.03$, $p < .001$, $\eta^2 = .19$. Post hoc comparisons revealed that participants holding a PsyD degree (*M* = $146,251.16, *Mdn* = $138,500.00, *SD* = $85,143.56) have higher levels of graduate debt than individuals with HSP PhDs (*M* = $80,368.11, *Mdn* = $69,000.00, *SD* = $56,743.72) and research and other PhDs (*M* = $67,829.79, *Mdn* = $55,000.00, *SD* = $49,453.68), both *p* values < .001.

Of note, the average starting salary for ECPs did not differ by these same categorizations. Despite a higher debt burden, recent PsyD recipients (*M* = $62,262.37, *Mdn* = $60,000.00, *SD* = $20,631.69) did not earn more than either HSP PhD recipients (*M* = $65,114.67, *Mdn* = $63,000.00, *SD* = $18,028.88) or recent research and other PhD recipients (*M* = $66,690.14, *Mdn* = $63,000.00, *SD* = $21,077.98). Current salaries reported by ECPs did not differ by degree. While all groups showed salary increases over time, PsyD recipients (*M* = $75,256.35, *Mdn* = $75,000.00, *SD* = $33,469.89) did not earn more than either HSP PhD recipients (*M* = $77,823.62, *Mdn* = $78,000.00, *SD* = $26,695.44) or recent research and other PhD recipients (*M* = $68,921.16, *Mdn* =

[5] Refer to the supplementary material online for tables that detail all sources of funding for education/training and living expenses (Table 2 and Table 3).

[6] Refer to the supplementary material online for tables that detail these percentages for students and ECPs by degree and subfield (Table 4 and Table 5).

[7] Refer to the supplementary material online for tables that include a complete breakdown of annual loan attributions (Table 6) and estimated annual tuition rates by degree (Table 7).

Table 2
Anticipated Final Graduate Debt for Current Students by Degree Pursuing and Subfield

	Mdn	Q1	Q3	*M*	*SD*	*N*
Degree pursuing						
Total	110,000	55,000	187,500	129,717.6	92,694.5	464
PhD	75,000	34,000	150,000	105,460.7	92,104.8	266
PsyD	160,000	110,000	220,000	173,239.3	78,711.1	173
EdD						1
Master's	75,000	42,500	95,000	88,521.7	77,715.6	23
Health service provider subfields						
Child clinical	120,000	60,000	210,000	136,857.4	93,827.0	21
Clinical	150,000	70,000	216,500	152,265.0	97,808.3	239
Clinical neuropsychology	155,000	55,000	300,000	167,277.8	121,824.3	18
Community						2
Counseling	80,000	50,000	134,000	97,823.7	64,865.3	93
Family						3
Forensic	215,000	157,500	255,000	205,625.0	70,276.9	8
Health	115,000	60,000	195,000	128,636.4	88,795.6	11
School	62,500	30,500	100,000	69,625.0	52,714.0	24
Subtotal	120,000	60,000	200,000	135,527.3	91,792.3	419
Research and other subfields						
Cognitive						3
Developmental	80,000	20,000	82,000	90,000.0	110,092.2	8
Educational						1
Experimental						1
General	110,000	70,000	140,000	108,000.0	37,682.9	5
Industrial/organizational	60,000	45,000	87,500	61,875.0	30,582.1	8
Neuroscience (nonclinical)						1
Quantitative						1
Social	52,500	27,500	105,000	61,875.0	44,234.6	8
Other	85,000	40,000	119,000	80,875.0	46,872.0	8
Subtotal	72,500	37,500	100,000	75,977.3	60,038.9	44

Note. Data in rows with less than 5 participants have been suppressed to protect participant identities, but these data are included in overall summary rows.

$63,000.00, *SD* = $31,538.25). When using an independent *t* test to compare clinical PsyD or PhD recipients (Group 1) with research or other PhD recipients (Group 2), a significant difference emerged, $t(428) = 2.51$, $p = .012$, $d = 0.30$.

ECPs reported average monthly student loan payments of $402.19 (*Mdn* = $300.00, *SD* = $461.02). Nearly half of ECPs reported that, at the current rate of payoff, it would take more than 17 years to pay off the full amount of their loans (45.7%), with a smaller subset estimating payoff between 9 and 12 years (17.6%). The majority of ECPs reported that they have not or were not planning to take advantage of loan forgiveness or repayment programs (69.1%).

Graduate students reported an expected final, cumulative (undergraduate and graduate) debt load of $141,078.07 (*Mdn* = $120,000, *SD* = $97,811.72). ECPs reported cumulative debt loads of $108,127.11 (*Mdn* = $98,000, *SD* = $73,817.32).

Impact of Debt

On a scale of 0 (*none at all*) to 4 (*extreme*), 48.9% of all respondents indicated that they experience significant financial stress (with a mean rating of "3" or above). For current students, a total of 58.9% endorsed this same level of financial stress. When asked if and how their lives are or have been delayed due to graduate education debt, only 14.4% of graduate students and 24.5% of ECPs indicated that their lives were not at all delayed. A significant number of students reported delaying retirement planning (65.7%), buying a home (62.5%), having children (49.3%), and/or getting married (31.8%). Similarly, ECPs reported delaying saving for the future (63.4%), retirement planning (56.7%), buying a home (42.5%), or having children (32.7%). Table 4 shows complete data for how participants feel their lives have been or will be delayed. Despite the heavy financial and personal burdens of graduate study in psychology, 61.7% of current students and 54.4% of ECPs indicated that they would choose to pursue psychology as a career again. In contrast, 32.1% of students and 36.7% of ECPs indicated that they would not, or were not sure if they would, choose psychology as a career again given their debt.

Employment and Income

The high financial burden of obtaining a graduate degree in psychology necessitates an evaluation of what graduates can expect to earn upon graduation. Graduate students reported an average expected salary of $62,121.21 (*Mdn* = $60,000.00, *SD* = $15,696.77).[8] Expected income was not significantly different from actual first year income (*M* = $63,260.85, *Mdn* = $60,000.00, *SD* = $19,408.75) reported by ECPs in this sample. First year income reported by ECPs did vary by degree and subfield, as shown in Table 5. Current yearly income reported by ECPs suggests opportunities for salary growth, with an average reported value of $74,577.83 (*Mdn* = $72,000.00, *SD* =

[8] Refer to the supplementary material online for a breakdown of anticipated salary by degree and subfield (Table 8).

Table 3
Final Graduate Debt for ECPs by Degree Pursuing and Subfield

	Mdn	Q1	Q3	*M*	*SD*	*N*
Degree obtained						
Total	80,000	40,000	140,000	99,023.4	73,139.6	525
PhD	67,000	35,000	110,000	78,526.5	55,838.0	320
PsyD	138,500	80,000	200,000	146,251.2	85,143.6	168
EdD						1
Master's	50,000	38,500	80,000	59,550.1	33,240.8	32
Other						4
Health service provider subfields						
Child clinical	76,500	35,000	130,000	90,919.2	68,343.7	26
Clinical	98,000	50,000	160,000	113,598.7	81,242.7	283
Clinical neuropsychology	102,500	67,000	137,500	108,916.7	71,554.8	12
Community						4
Counseling	70,000	42,000	120,000	87,389.8	58,333.8	93
Family						2
Forensic	39,000	30,000	80,000	70,000.0	72,579.3	9
Geropsychology						1
Health	80,000	50,000	146,000	98,300.0	68,260.2	11
School	68,000	40,000	90,000	72,181.8	44,392.9	22
Sport						1
Subtotal	95,000	42,000	147,500	102,807.5	74,873.5	464
Research and other subfields						
Cognitive						1
Developmental	38,000	19,500	77,000	51,750.0	40,436.0	8
Educational	58,000	27,000	100,000	68,062.5	46,117.9	16
Environmental						1
General	80,000	38,000	115,000	75,400.0	43,644.0	5
Industrial/organizational	80,000	35,500	94,000	71,733.3	41,143.4	15
Neuroscience (nonclinical)						1
Physiological						1
Psychopharmacology						2
Psychometrics						1
Social	45,000	35,000	100,000	60,200.0	40,033.7	5
Other	87,602	50,000	125,000	100,520.4	58,901.1	5
Subtotal	56,000	26,000	100,000	70,239.4	50,052.0	61

Note. Data in rows with less than 5 participants have been suppressed to protect participant identities, but these data are included in overall summary rows.

$29,701.54).[9] Approximately 43.3% of ECPs indicated that their salary is lower than what they expected to make at this stage in their career.

Discussion

There is a growing debate in society about the cost of education and the impact of student debt, particularly as debt is emerging as a new sociological category of poverty in the United States (Kowzan, 2010). While some see the price tag of higher education reaching "crisis" proportions, others view escalating costs as understandable, as the number of individuals pursuing higher education increases (Newman, 2014). The rising cost of education has important social justice implications. As educational costs continue to increase, access to higher education becomes restricted, particularly for individuals from disadvantaged economic backgrounds. While students across racial and ethnic groups borrow to pay for their education, underrepresented racial minorities seem to be disproportionately affected (Johnson et al., 2012; Malcom & Dowd, 2012). Diversity is a core value of psychology, and is embedded in the mission of the American Psychological Association (American Psychological Association, 2014a) and the accreditation standards for doctoral education (American Psychological Association, 2013). The current expense of obtaining higher education, and the "pay as you go" expectation for students in clinical and counseling psychology (Norcross, Castle, Sayette, & Mayne, 2004) therefore has the potential to hinder the advancement of students from underrepresented groups and negatively impact the goal of creating a diverse workforce in psychology.

The present study served to update and expand what we know about graduate student and early career psychologist debt and finances. Previous reports listed the median debt loads for a clinical PhD at $68,000, for a clinical PsyD at $120,000, and for research-oriented PhDs at $38,500 (Michalski et al., 2011). Consistent with hypotheses, in the present study, graduate students reported an average anticipated total debt of nearly $130,000, with the median at $110,000. PsyD students have the highest anticipated debt load, with an average of $173,000 and a median of $160,000. Health service psychology doctoral-level students have an average of $136,000 and a median of $120,000, and research-oriented doctoral-level students have an average of $76,000 and a median of $73,000 (note that these numbers do not include undergraduate debt). We are concerned that, without intervention, these numbers will continue to rise in the coming years. These data

[9] Refer to the supplementary material online for current ECP income by degree and subfield (Table 9).

Table 4
Reported Life Delays Because of Education-Related Debt

	Graduate students		ECPs		Total	
	N	%	*N*	%	*N*	%
No perceived delay	85	14.4	169	24.5	254	19.8
Will or have delayed:						
Home purchase	370	62.5	294	42.5	664	51.8
Car purchase	238	40.2	223	32.3	461	35.9
Saving for the future	456	77	438	63.4	894	69.7
Retirement planning	389	65.7	392	56.7	781	60.9
Getting married	188	31.8	117	16.9	305	23.8
Having children	292	49.3	226	32.7	518	40.4
Other	31	5.2	47	6.8	78	6.1
Would choose psychology again[a]:						
Yes	365	61.8	374	54.4	739	57.8
No	48	8.1	81	11.8	129	10.1
I'm not sure	142	24.0	171	24.9	313	24.5
Not applicable /no debt	36	6.1	62	9.0	98	7.7

[a] The corresponding survey question was framed related to educational debt. The *not applicable* selection therefore corresponds to individuals without educational debt.

reflect significant increases in the financial burden of attending graduate school in psychology since the 2009 survey (Michalski et al., 2011)—a 33.3% increase for PsyDs, 76.5% for health service PhDs, and 89.6% for research PhDs. Comparing these figures to available data on tuition increases (American Psychological Association, 2015), student debt appears to be increasing beyond what might be expected based on tuition rates alone. Nevertheless, participants attributed more than two thirds of their loan debt to direct educational costs. It will be important for future research to further parse out these relationships and more clearly delineate all of the factors driving increasing debt (e.g., funding availability). Furthermore, these increases cannot be explained by a greater number of psychologists in training, as the number of graduates in the field has not changed substantially in the past three decades (National Science Foundation, 2013), with minor decreases occurring between 2004 and 2014 (American Psychological Association, 2004, 2014b).

Discrepancies emerged between PhD and PsyD respondents with respect to university financial support. PsyD respondents indicated that they had much less university-based funding available to them, which may at least partially explain their overall larger debt loads. Despite the discrepancies in debt load and support, starting and current salaries were approximately equivalent across degree types. While graduate students anticipated first-year salaries that were generally accurate when compared with actual first-year salaries among ECPs, it is noteworthy that starting salaries for psychologists (≈$60,000) do not appear to have increased when the current data are compared with existing estimates (e.g., Pate & Finno, 2009). This may be contextualized as part of the larger trend in society of stagnating or decreasing (when adjusted for inflation) salaries despite escalating living expenses (Desilver, 2014; McBride, 2014; Mishel & Shierholz, 2013). If psychologist salaries are in fact stagnating, while debt loads increase dramatically, the ability of new graduates to reasonably pay off their student loans may be in jeopardy.

The rate of increase in overall debt loads is also concerning. While ECPs reported average cumulative debt (including graduate and undergraduate) of $108,000, current students anticipated a total cumulative debt of over $140,000. Using these figures, under a standard 10-year repayment plan at 6% interest, students can expect monthly payments around $1,566.26, while ECPs should expect around $1,200.43 per month (Student Loan Calculator, 2015). Extending this repayment plan to the maximum allowable 25-year payoff term would decrease these monthly bills to $902.02 and $695.85, respectively. With an average reported first-year income of $63,260.85 (*Mdn* = $60,000.00, *SD* = $19,408.75), students can expect between 16% and 30% of their pretax monthly income to go directly toward paying off their student loan debt; ECPs can expect between 12% and 23%. Given these figures, it can be expected that more than one third of net income will go toward student loan repayment. These percentages far exceed the rate at which loan repayment is considered a financial hardship—10% of discretionary income, according to recent federal policies (Kittredge, 2010). The income-to-debt ratio warrants concern, particularly since nearly half of ECPs in the present sample indicated that their current salary is less than they expected to make at this stage in their careers. Taken as a whole, these data may call into question the financial viability of pursuing a doctoral degree in psychology.

The present study provides updated and comprehensive information about graduate student and early career financial and debt circumstances. Burgeoning psychologists appear to be burdened with alarmingly large and ever-increasing amounts of debt, with a lack of comparable growth in psychologist salaries. Furthermore, the modal graduate student and early career psychologist indicate that they live a fairly moderate lifestyle, generally lack disposable income or room for indulgences, and report significant financial stress about meeting their basic expenses. As expected, a concerning proportion of individuals also report delaying major life milestones, such as getting married or having children, and/or being unable to purchase a home or save money (e.g., for retirement). The present study demonstrated that education-related debt impacts students and ECPs in many aspects of their lives, with a large number of individuals making multiple personal sacrifices in order

Table 5
ECP Actual First-Year Salaries

	Mdn	Q1	Q3	*M*	*SD*	*N*
Degree obtained						
Total	60,000	50,000	75,000	63,260.9	19,408.7	667
PhD	63,000	52,000	75,000	65,370.1	18,540.1	438
PsyD	60,000	50,000	75,000	62,262.4	20,631.7	186
EdD						1
Master's	45,000	40,000	50,000	45,546.0	13,377.3	37
Other	47,000	46,000	60,000	52,180.0	9,703.7	5
Health service provider subfields						
Child clinical	65,850	55,000	75,000	66,484.6	16,728.2	34
Clinical	65,000	50,000	75,500	64,867.4	19,438.8	348
Clinical neuropsychology	72,500	60,000	83,000	73,214.3	21,358.4	14
Community	55,000	47,000	55,000	58,973.0	25,211.1	5
Counseling	56,000	48,000	67,500	58,813.9	17,805.9	115
Family						3
Forensic	50,000	42,000	60,000	49,111.1	11,263.3	9
Geropsychology						2
Health	57,500	42,000	71,000	57,222.2	19,531.4	18
Rehabilitation						2
School	60,000	48,000	70,000	61,328.6	17,107.2	28
Sport						1
Subtotal	60,000	50,000	75,000	63,253.9	19,052.9	579
Research and other subfields						
Cognitive						3
Developmental	55,000	50,000	66,000	58,142.9	11,772.6	14
Educational	60,000	50,750	67,500	58,763.2	15,668.8	19
Environmental						1
Experimental						2
General	40,000	40,000	45,000	37,833.3	13,272.8	6
Industrial/ organizational	65,000	51,000	85,000	71,642.9	23,020.2	21
Neuroscience (nonclinical)						1
Physiological						1
Psychometrics						1
Psychopharmacology						3
Quantitative						1
Social	63,000	50,000	76,000	66,666.7	20,688.2	9
Other	55,000	50,000	65,000	58,333.3	12,909.9	6
Subtotal	60,000	50,000	75,000	63,306.8	21,724.3	88

Note. Data in rows with less than 5 participants have been suppressed to protect participant identities, but these data are included in overall summary rows.

to complete and fund their graduate education in psychology. It would be prudent for the training community to engage in conversations about the impact of rising educational costs and stagnating salaries. Future research should expand upon this and investigate additional life impacts or disruptions—such as relationship problems, having to sell a home, or difficulties affording child care—to name a few. Of no small matter, around one third of respondents in the present study indicated that they were not sure if they would (or simply would not) choose psychology again as a career given their education-related debt.

There is substantial need for increased education and advocacy efforts related to student loan and debt issues. There are also important implications for federal policies related to student loan borrowing, repayment, and debt. Existing recommendations include simplifying loan repayment options, providing information about loans and repayment as early as high school, moving to a uniform repayment system, and making the income-contingent option the default repayment plan (Boatman, Evans, & Soliz, 2014). Prospective graduate students are entitled to have full informed consent before embarking on graduate study. While some education about student loan terms is presently required, such as entrance and exit counseling for federal loans (USA Funds, 2015a, 2015b), the information provided is minimal and highly technical in nature. It is concerning that many students borrow without being aware of their interest rates and the terms of their repayment (Mueller, 2014). Typically, at no point during the admissions process is information provided about the full cost of attending (including associated nontuition expenses, like attending conferences or buying assessment materials), limits on and consequences of borrowing, expected repayment terms or average monthly payment based on the amount of loans taken, or important information about issues in the field (e.g., the internship crisis, licensure requirements and cost, and income expectations). This information should be routinely provided by psychology programs to prospective students. Universities also need better financial and loan counseling that extends far beyond what is presently offered/required.

Specific advocacy steps need to be taken within the psychology field at large. First, the major stakeholders in the field should join national efforts to address the increasing cost of higher education, including the dramatic increases in debt loads. It is necessary to increase advocacy efforts for federal and state-based programs that

fund psychology education and training, and for maintaining or increasing current levels of behavioral science funding that helps to support assistantships for students. The training community should turn its attention to previous recommendations to streamline the training process (Health Service Psychology Education Collaborative, 2013), which has the potential to reduce the time to degree completion, and therefore overall cost. Awareness and advocacy are also needed within graduate training programs to reduce overall costs and increase the availability of financial support through tuition remission, stipends, work-study programs, grants, fellowships, and other graduate assistantships. Finally, the American Psychological Association and the entire training community can best serve students by increasing their awareness of the magnitude of the debt problem and ensure that fair and lower costs are considered for graduate students and ECPs wherever possible.

The present study has several limitations. The response rate was 14%, limiting the generalizability of the findings. Given the breadth of subfields in psychology, certain areas were necessarily underrepresented (e.g., community psychology, sports psychology). It would have been preferable to have a larger and more diverse sample across demographic and disciplinary indicators. Despite the limitations of these data, the present sample closely corresponds to general American Psychological Association membership demographics for graduate students and ECPs (American Psychological Association, 2009b, 2014c).[10] In the present dataset, there seemed to be a slight underrepresentation of respondents who earned science/research/other degrees. There was also a small subset of masters-level respondents, limiting what we can say about these individuals. It is likely that MA members of the American Psychological Association (who only hold an affiliate status) differ from nonmembers in important ways.

All data in the present study were self-reported through an online data collection mechanism and are therefore not externally verifiable. It is possible that some participants did not know, and chose not to look up, their exact debt amounts, which may have resulted in an under- or overestimation of debt loads. There is also a risk for self-selection bias, given that individuals with loan debt may have been more compelled to complete the survey, potentially inflating overall debt estimates. Finally, the American Psychological Association membership database was utilized for recruitment. It is possible that American Psychological Association members and nonmembers differ in systematic ways (e.g., financial resources), which further limits generalizability. Despite these limitations, the present study provides important and updated information about debt loads and the financial situations of current graduate students and ECPs.

Newman (2014) framed the debt debate by asking if the debt required to obtain an education is worth the cost to students and society. Graduate psychology education has several additional challenges, including the increase in degree completion times, opaque workforce data, and (for HSP fields) the internship crisis and a shifting identity from mental health to health service providers (Doran, Meyerson, & El-Ghoroury, 2014). Individuals in research and academia also face decreasing federal support and the limited availability of grant funding (Skedsvold, 2014). Given the focus on cost reduction that is driving health care reform (Patient Protection and Affordable Care Act, 2010), decreasing reimbursement rates for clinical service delivery through managed care (Herz, 2009), a climate of reduced funding for psychological research (Naus et al., 2015), and steady growth of master's level clinicians (Bureau of Labor Statistics, 2014), the cost-benefit question for the psychology doctoral degree remains unanswered. In the context of widespread concern about the social and economic impact of student loans (Nasiripour, 2013), the psychology training community needs to join the conversation and take proactive steps to advocate for systemic change.

[10] Refer to the supplementary material online for a table that compares American Psychological Association graduate student and ECP membership data with the present sample (Table 10).

References

American Psychological Association. (2004). *Commission on Accreditation 2004 annual report online summary data: Doctoral programs*. Retrieved from http://www.apa.org/ed/accreditation/about/research/2004-doctoral-summary.pdf

American Psychological Association. (2009a). *Debt related to graduate education on receipt of the doctoral degree: 2009 doctorate recipients in psychology*. Retrieved from http://www.apa.org/workforce/publications/09-doc-empl/table-8.pdf

American Psychological Association. (2009b). *2008: APA member profiles*. Retrieved from http://www.apa.org/workforce/publications/08-member/index.aspx

American Psychological Association. (2013). *Guidelines and principles for accreditation of programs in professional psychology*. Retrieved from http://www.apa.org/ed/accreditation/about/policies/guiding-principles.pdf

American Psychological Association. (2014a). *American Psychological Association strategic plan*. Retrieved from http://apa.org/about/apa/strategic-plan/default.aspx

American Psychological Association. (2014b). *Commission on Accreditation 2014 annual report online summary data: Doctoral programs*. Retrieved from http://www.apa.org/ed/accreditation/about/research/2014-doctoral-summary.pdf

American Psychological Association. (2014c). *2013: APA member profiles*. Retrieved from http://www.apa.org/workforce/publications/13-member/index.aspx

American Psychological Association. (2015). *CWS publications—Analysis of data from graduate study in psychology*. Retrieved from http://www.apa.org/workforce/publications/index.aspx

Baum, S., & Ma, J. (2012). Trends in college pricing. *Trends in Higher Education Series. The College Board*. Retrieved from http://trends.collegeboard.org/sites/default/files/college-pricing-2012-full-report_0.pdf

Boatman, A., Evans, B., & Soliz, A. (2014). *Applying the lessons of behavioral economics to improve the federal student loan programs: Six policy recommendations*. Retrieved from http://www.luminafoundation.org/files/publications/ideas_summit/Applying_the_Lessons_of_Behavioral_Economics_to_improve_the_Federal_Policy_Loan_Programs.pdf

Bureau of Labor Statistics. (2014). *Occupational outlook handbook: Mental health counselors and marriage and family therapists*. Retrieved from http://www.bls.gov/ooh/community-and-social-service/mental-health-counselors-and-marriage-and-family-therapists.htm

Council of Graduate Schools. (2006). *Financing graduate education: Current trends, future concerns*. Presented at the Council of Graduate Schools annual meeting, Washington, DC.

Coyle, S., & Bae, Y. (1987). *Summary report, 1986: Doctorate recipients from United States universities*. Washington, DC: National Academy Press.

Delisle, J. (2012). Federal student loan interest rates: History, subsidies, and cost. *New America Foundation*.

Delisle, J. (2014). The graduate student debt review: The state of graduate student borrowing. *New America Education Policy Program*.

Desilver, D. (2014). For most workers, real wages have barely budged for decades. *Pew Research Center*. Retrieved from http://www.pewresearch.org/fact-tank/2014/10/09/for-most-workers-real-wages-have-barely-budged-for-decades/

Doran, J. M., Meyerson, D. A., & El-Ghoroury, N. H. (2014). Promoting a higher quality graduate training experience: A student perspective on the HSPEC Blueprint for Health Service Psychology Education and Training. *Training and Education in Professional Psychology, 8,* 12–17. http://dx.doi.org/10.1037/tep0000017

El-Ghoroury, N. H., Galpher, D. I., Sawaqdeh, A., & Bufka, L. F. (2012). Stress, coping, and barriers to wellness among psychology graduate students. *Training and Education in Professional Psychology, 6,* 122–134. http://dx.doi.org/10.1037/a0028768

Elmer, V. (2012, April 26). Dealing with student debt. *The New York Times*. Retrieved from http://www.nytimes.com/2012/04/29/realestate/mortgages-dealing-with-student-debt.html?_r=0

Federal Reserve Bank of New York. (2014). *Quarterly report on household debt and credit*. Retrieved from http://www.newyorkfed.org/householdcredit/2014q3/data/pdf/HHDC_2014Q3.pdf

Federal Student Aid. (2015). *iLibrary—Federal student aid handbook*.

Finno, A. A., Michalski, D., Hart, B., Wicherski, M., & Kohout, J. L. (2010). *2009: Report of the APA salary survey*. Retrieved from http://www.apa.org/workforce/publications/09-salaries/

Gehlmann, S., Wicherski, M., & Kohout, J. (1995). *Characteristics of graduate departments in psychology: 1993–1994*. Washington, DC: American Psychological Association.

Golding, J. M., Lang, K., Eymard, L. A., & Shadish, W. R. (1988). The buck stops here: A survey of the financial status of PhD graduate students in psychology, 1966–1987. *American Psychologist, 43,* 1089–1091. http://dx.doi.org/10.1037/0003-066X.43.12.1089

Health Service Psychology Education Collaborative. (2013). Professional psychology in health care services: A blueprint for education and training. *American Psychologist, 68,* 411–426. http://dx.doi.org/10.1037/a0033265

Herz, G. I. (2009). *Reimbursement for psychologists' services: Trends, impact on access to psychologists, and solutions*. Retrieved from http://www.drherz.us/blog42/ReimbursementAccessSolutions.htm

Johnson, A., Van Ostern, T., & White, A. (2012). *The student debt crisis. Center for American Progress*. Retrieved from http://www.americanprogress.org

Kelley Blue Book. (2015). *Kelley blue book used car guide* (Consumer ed.). Irvine, CA: Author.

Kittredge, B. M. (2010). *The Student Aid and Fiscal Responsibility Act*. Retrieved from http://edlabor.house.gov/blog/2009/07/student-aid-and-fiscal-respons.html

Kowzan, P. (2010). *New faces of poverty: Debt as a sociological category*. Retrieved from http://www.academia.edu/423502/New_Faces_of_Poverty_Debt_as_a_Sociological_Category

Malcom, L. E., & Dowd, A. C. (2012). The impact of undergraduate debt on the graduate school enrollment of STEM baccalaureates. *The Review of Higher Education, 35,* 265–305. http://dx.doi.org/10.1353/rhe.2012.0007

McBride, B. (2014). *First look at 2015 cost-of-living adjustments and maximum contribution base*. Retrieved from http://www.calculatedriskblog.com/2014/07/first-look-at-2015-cost-of-living.html

Michalski, D., Kohout, J., Wicherski, M., & Hart, B. (2011). *2009 doctoral employment survey*. Retrieved from http://www.apa.org/workforce/publications/09-doc-empl/index.aspx

Mishel, L., & Shierholz, H. (2013). *A decade of flat wages: The key barrier to shared prosperity and a rising middle class* (Economic Policy Institute—Briefing Paper #365). Retrieved from http://s1.epi.org/files/2013/BP365.pdf

Mueller, T. (2014). Changes to the student loan experience: Psychological predictors and outcomes. *Journal of Student Financial Aid, 43,* 148–164.

Nasiripour, S. (2013). Arne Duncan signals worry over student debt levels. *The Huffington Post*. Retrieved from http://www.huffingtonpost.com/2013/05/21/arne-duncan-student-debt_n_3315367.html

National Science Foundation. (2013). *Doctorate recipients, by major field of study: Selected years, 1983–2013*. Retrieved from http://www.nsf.gov/statistics/sed/2013/data/tab12.pdf

Naus, W., Sharpe, A. L., Kelly, H., Kobor, P., Sroufe, G. E., & Talbot, C. (2015). Social and behavioral science research in the FY 2015 budget. *American Association for the Advancement of Science*. Retrieved from http://www.aaas.org/sites/15pch19.pdf

Newman, J. (2014). *Student-debt debate is stoked by caveats about data*. Retrieved from http://chronicle.com/blogs/data/2014/06/25/student-debt-debate-is-stoked-by-caveats-about-data/

Norcross, J. C., Castle, P. H., Sayette, M. A., & Mayne, T. J. (2004). The PsyD: Heterogeneity in practitioner training. *Professional Psychology: Research and Practice, 35,* 412–419. http://dx.doi.org/10.1037/0735-7028.35.4.412

Norcross, J. C., Ellis, J. L., & Sayette, M. A. (2010). Getting in and getting money: A comparative analysis of admission standards, acceptance rates, and financial assistance across the research-practice continuum in clinical psychology programs. *Training and Education in Professional Psychology, 4,* 99–104. http://dx.doi.org/10.1037/a0014880

Norcross, J. C., & Sayette, M. A. (2014). *Insider's guide to graduate programs in clinical and counseling psychology: 2014/2015 ed*. New York, NY: Guilford Press.

Pate, W. E., II., & Finno, A. A. (2009). *Graduate school debt and starting salaries in psychology*. Presented at the 117th annual convention of the American Psychological Association, Toronto, Canada.

Patient Protection and Affordable Care Act, 42 U.S. C. 18001. (2010).

Skedsvold, P. (2014). House bill cutting social and behavioral sciences funding advances. *Federation of Associations in Behavioral and Brain Sciences*. Retrieved from http://www.fabbs.org/news/news-archive/house-bill-cutting-social-and-behavioral-sciences-funding-advanc/

Student Loan Calculator. (2015). *Bankrate, Inc*. Retrieved from http://www.bankrate.com/calculators/college-planning/loan-calculator.aspx

USA Funds. (2015a). *Entrance counseling requirements for direct subsidized, unsubsidized, and Grad PLUS loan borrowers*. Retrieved from http://www.usafunds.org/USAFunds%20/ResourceLibrary/EntranceCounselingRequirements.pdf

USA Funds. (2015b). *Exit counseling requirements for direct subsidized, unsubsidized, and Grad PLUS loan borrowers*. Retrieved from http://www.usafunds.org/USAFunds%20/ResourceLibrary/ExitCounselingRequirements.pdf

Wicherski, M., & Kohout, J. (2005). *2003 doctorate employment survey*. Washington, DC: American Psychological Association.

Received May 6, 2015
Revision received December 11, 2015
Accepted December 14, 2015 ■