

Office of Institutional  
Research, Assessment  
and Planning (IRAP)

These days, there is much debate around the value of a liberal arts education. But Occidental College has good reason to be proud.

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We would like to acknowledge the Career Development Center at Occidental College for sponsoring this survey, and for their efforts to contact Oxy alumni to increase our response rate. As a direct result of their hard work, Oxy garnered a response rate of 53%, the highest among the 33 colleges and universities that participated in the 2013-14 HEDS survey. This is the first time Oxy participated in the HEDS Alumni Survey.

## The Value of an Oxy Education *According to Oxy Graduates from the Last 20 Years*

### Key Findings

Popular discourse around higher education today frequently focuses on its perceived failures with respect to “return on investment”. The recent economic crisis has put a spotlight on high unemployment rates, high student debt and rising college costs. But Occidental College (Oxy) has good reason to be proud. Most of its alumni are employed and a good number are in graduate or professional schools. Moreover, student loan payments generally become less burdensome, at around 7% or less of current annual salaries, for Oxy alumni who graduated at least 5 years ago.

Oxy received high scores from alumni for “faculty interest in teaching and students”, “overall satisfaction”, “student-faculty interaction” and “classroom experiences”. Next to these high scores, “connectedness to Oxy as alumni” was moderately high, while “preparation for current career”, “exposure to diversity” and “preparation for social/civic involvement” were modestly scored.

### I. Background

The mission of Occidental College is to offer its students a liberal arts education that will empower and prepare them for leadership in an increasingly complex, interdependent and pluralistic world. Is this borne out in its alumni outcomes? A practical way to gauge the success of the mission is to actually ask Oxy graduates to reflect on their experiences as former students at Oxy, and how their education helped them in their careers and social/civic involvement.

In June 2014, Occidental College participated in the Alumni Survey conducted by the Higher Education Data Sharing Consortium (HEDS). The survey is designed to

assess the long-term impact of teaching practices and institutional conditions on liberal education outcomes, and examines postgraduate employment outcomes, the pursuit of advanced degrees, amount of college debt, and college satisfaction.

The HEDS Alumni Survey was administered to Oxy alumni 1, 5, 10 and over 10 years after graduation. The 1-year-out cohort are alumni that graduated from Oxy in 2013, the 5-year-out cohort are alumni that graduated from Oxy in 2009, the 10-year-out cohort are alumni that graduated in 2004, and the 20-year-out cohort are those that graduated in 1994. Survey administration was electronic, with initial contact made by email with all graduates from the corresponding year for whom valid contact information was available. Up to two follow-up phone calls were made to ensure maximum participation. Oxy’s average response rate was a high 53%, with 2009 graduates having the highest response rates at 60%. Oxy response rates are high compared to that of 32 participating colleges for this survey. For the 2013-2014 HEDS Alumni Survey, the average response rate for institutions that used the email method was 21%, with a range of 10% - 37%.

### II. Objectives of the Brief

This brief has three objectives:

- 1) Show where Oxy students go once they graduate, in terms of post-baccalaureate degrees and employment rates;
- 2) Assess the Oxy experience in terms of the following (Kaldor, 2013):
  - a) Academic experiences and perceptions
  - b) Exposure to diversity
  - c) Usefulness of degree
  - d) Feeling of connectedness to Oxy as an alum
  - e) Overall satisfaction with Oxy

**Table 1. Sample size and response rates for Oxy alumni**

Years Out	Grad Year	Class Size (N)	Invited Participants (with valid contact info)	Respondents (n)	Response Rates			
					OVERALL	Arts and Humanities	Sciences	Social Sciences
1	2013	513	424	241	57%	57%	52%	62%
5	2009	384	379	228	60%	54%	61%	65%
10	2004	475	365	184	50%	54%	46%	51%
20	1994	389	252	99	39%	32%	45%	38%
<b>Overall</b>		1,761	1,420	752	53%	51%	51%	56%

Note: Response Rate is based on the HEDS formula of dividing an institution's total number of valid responses by the number of emails successfully delivered through Qualtrics.

degree and experience; and  
 3) Gauge the affordability of degree and salary.

### III. Review of Literature

The media has churned out various articles questioning the relevance, cost and value of higher education. Liberal arts education takes a special hit, since it typically comes with a steep “sticker price”. Indeed, studies such as those by Adamuti-Trache, et al (2006) concludes that “graduates from applied education programs experience a more rapid integration into the labour market as compared to graduates from liberal arts education programs.” This Adamuti-Trache study, however, only looks at the short-term (using longitudinal data from 1,996 graduates from three major public universities in British Columbia when they were 1 year out in 1997 and again when they were 5 years out in 2001).

To rise to the challenge of providing a data-based, long-term and nationally-representative study, the Association of American Colleges and Universities (AAC&U) and the National Center for Higher Education Management Systems came out with a joint study by Humphreys and Kelly (2014). The study used data from the US Census Bureau's American Community Survey for 2010 and 2011, on about 3 million US residents between the ages of 21 and 65. The key findings are as follows: (1) Liberal arts majors (defined in the study as majors in the humanities, arts, and social sciences, earned as an undergraduate) could earn more than professional majors (e.g. nursing or business) at peak earnings ages of 56-60 years old; (2) Unemployment rates for recent liberal arts graduates are at over 5%, and are even lower for mature workers (41-50 years old) at over 3%.

The benefits of a liberal arts education go beyond salaries. The distinctive blend of the humanities, sciences and the arts makes for the education of the whole person, giving the students transferable knowledge and skills that can be used across different career paths. Another AAC&U study, in collaboration with Hart Research Associates (2013), found that 93% of 318 employers they surveyed say that a job candidate's demonstrated capacity to think critically, communi-

cate clearly, and solve complex problems is more important than their undergraduate major. And 80% of employers surveyed agree that, “regardless of their major, all college students should acquire broad knowledge in the liberal arts and sciences.”

### IV. Life after Oxy: A Comparative Look

This section of the brief compares Oxy data with those of 32 colleges (mostly liberal arts institutions) who took the 2013-14 HEDS Alumni Survey. Note that HEDS does not compute for statistical significance of the mean differences between Oxy and the rest of the participating schools. This means that we cannot measure the extent to which a difference is occurring by chance. However, a comparison of Oxy alumni responses with other schools is still useful as it provides context for Oxy's data.

The current-activity profile of Oxy graduates that have been out for 5 and 10 years is similar to those of participating colleges (figure 1). But for those who just graduated in 2013, 80% of Oxy alumni are employed, compared to only 67% from other colleges. For those who have been out for more than 10 years (this would be the 1994 graduates for Oxy), 93% are employed, much higher than the 77% alumni employed from other institutions that participated in the HEDS survey.

Estimates from the HEDS data shows that 46% of Oxy alumni who graduated 1 or 5 years ago have either received or are currently pursuing a graduate or professional degree, compared to 62% of same-cohort alumni from other schools.

Figure 2 shows the 2 alumni cohorts (those who graduated 1 and 5 years ago) who have the largest proportions currently enrolled in graduate/professional school. Compared to those from other schools, recent Oxy graduates who are taking or have received graduate/professional degrees gravitate more towards law, medical and “other” degrees (such as graduate degrees in architecture, philosophy, public health, nursing).

## V. The Oxy Experience through the Eyes of Graduates

Assessment of the Oxy experience can be organized around the following measures and constructs:

- a) Academic experiences and perceptions;
  - \* Faculty interest in teaching and students
  - \* Student-faculty interaction outside of class
  - \* Classroom experiences
- b) Exposure to diversity;
- c) Usefulness of graduate degree;
  - \* Preparation for current career
  - \* Preparation for social and civic involvement
- d) Feeling of connectedness to Oxy as an alum; and
- e) Overall satisfaction with Oxy degree and experience.

### Methodology

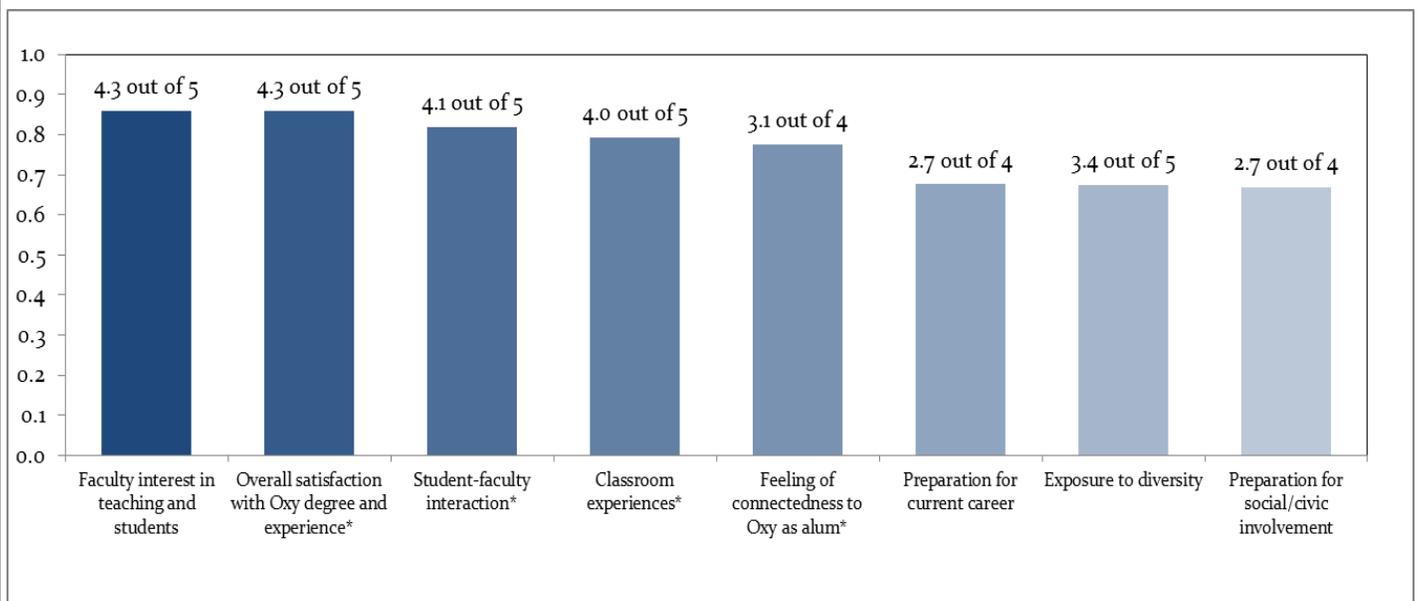
Data reduction methodologies were used to gauge some of the outcomes in this study. The survey contains over 30 questions which resulted in over 100 variables. To identify trends and let the data tell a story that is useful for the reader, confirmatory factor analysis and Cronbach's alpha were used to reduce the data into groups sharing common latent traits. Confirmatory factor analysis looks to confirm a specific hypothesis about the structure or the number of dimen-

sions underlying a set of variables, by specifying the principal-factor method to be used to analyze the correlation matrix. Cronbach's alpha is a reliability coefficient that measures how closely a set of items are as a group. The closer to 1 this coefficient is, the better.

Survey items were then combined using weighted averages. Under the category, "academic experience and perceptions", variables were averaged into sub-categories, as follows: "faculty interest in teaching and students", "student-faculty interaction outside of class", and "classroom experience". Survey items were also averaged together under "exposure to diversity". Factor analysis confirmed that the survey items within each grouping all shared a common latent trait. Cronbach's alpha ranged from 0.81 to 0.87 for these 4 groups.

And finally, t-tests were used to test for statistical significance of category/sub-category scores across each graduate cohort included in this dataset. If a difference in scores across graduate cohorts is not significant, that difference is very likely a chance finding. The confidence level has to be at least 95% for the differences in scores to be considered statistically significant.

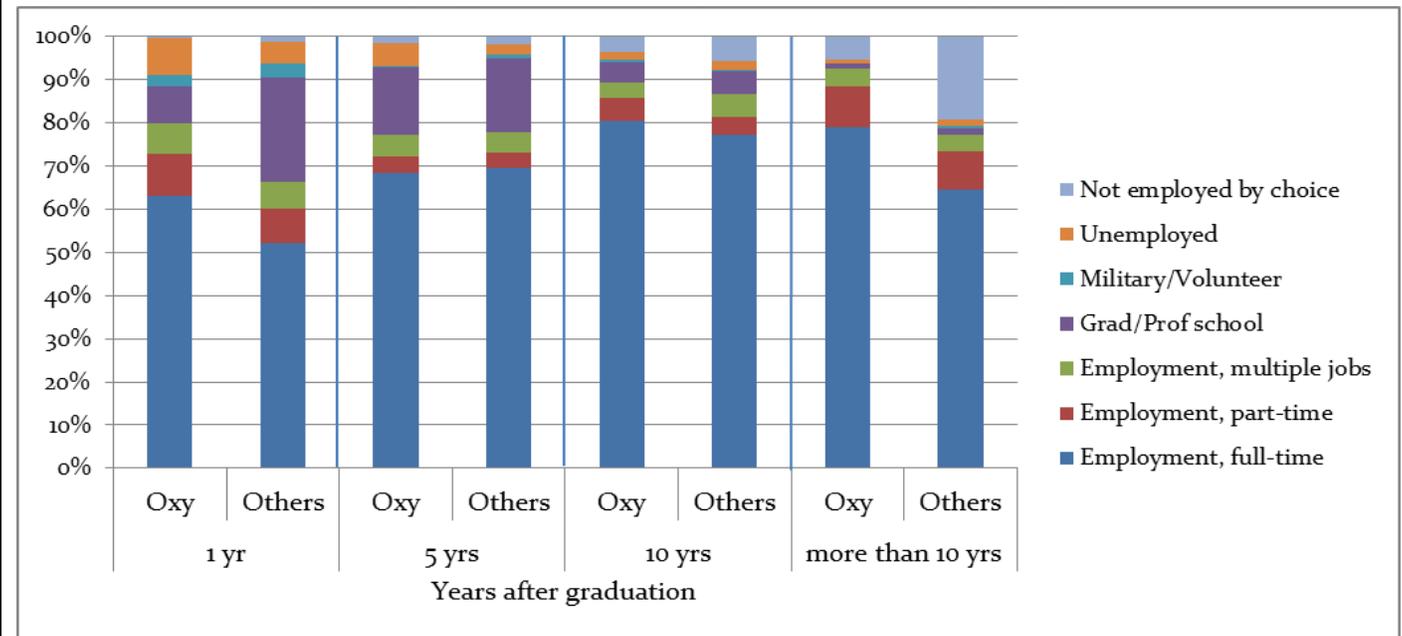
**Figure 3. Average mean scores for perceptions and experiences by Oxy alumni**



### Notes:

- 1) The scores from categories and sub-categories used in this figure have different maximum scores (either 4 or 5). To make them comparable, the scores were transformed into ratios (for example, "4.3 out of 5" becomes  $4.3/5=0.86$ ) with a uniform maximum score of 1 (Kaldor, 2013).
- 2) These scores show statistically-significant differences (at the 95% confidence level) between graduates depending on number of years out, based on t-test results. But while these score differences may be "statistically significant", such score differences across graduation cohorts do not appear to be of practical importance, because of their small levels (for example, those who graduated 20 years ago scored 4.5 in "overall satisfaction with Oxy", compared to the 4.2 score by those who graduated 1 year ago).

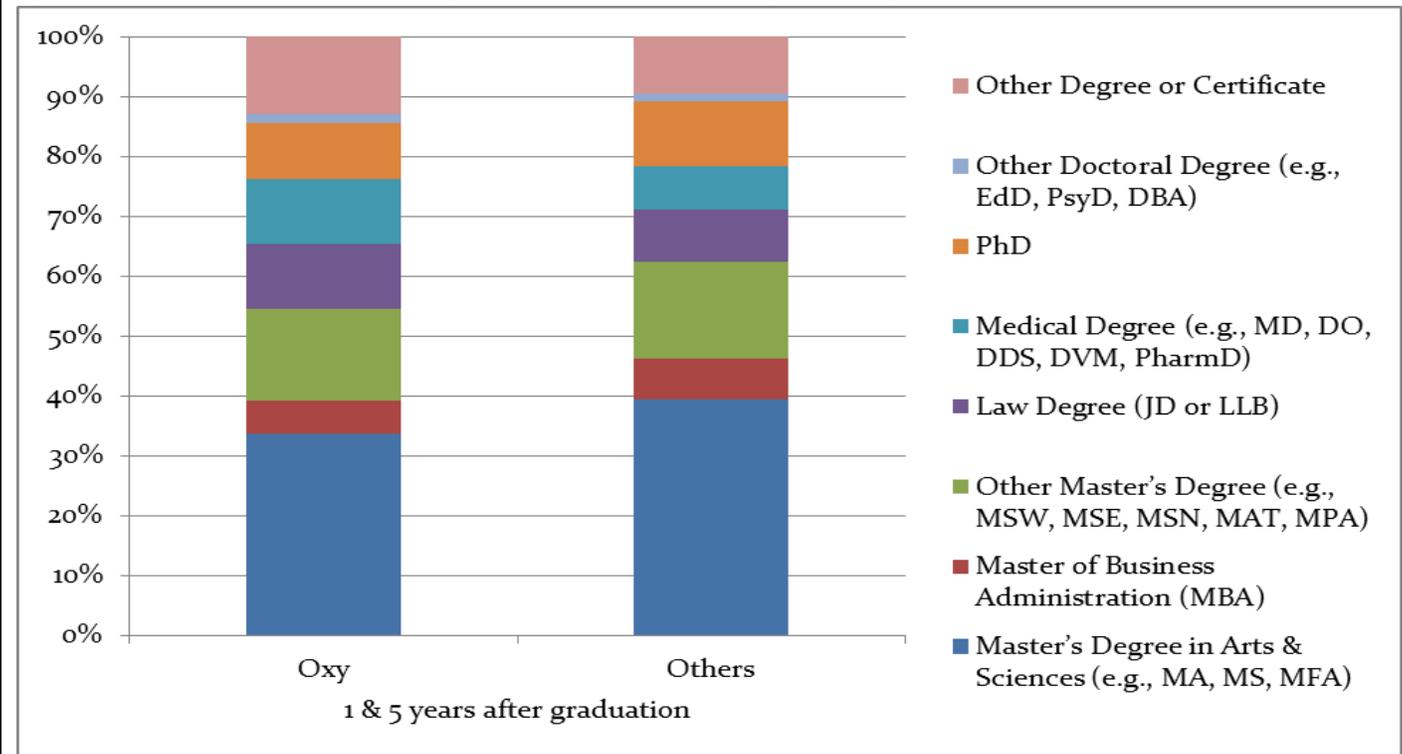
**Figure 1. Current primary activity of graduates from Oxy and other schools, by year graduated**



**Notes:**

“Others” are alumni from the 32 schools that participated in the 2013-14 HEDS Alumni Survey. The 32 comparison schools are as follows: Albion College, Alma College, Austin College, Baldwin Wallace University, Bucknell University, Claremont McKenna College, Clark University, DePauw University, Earlham College, Furman University, Goshen College, Haverford College, Holy Names University, Kenyon College, Knox College, Lee University, Luther College, McDaniel College, Mills College, Ouachita Baptist University, Pepperdine University, Sarah Lawrence College, Scripps College, Sewanee: The University of the South, The College of Idaho, Trinity University, Union College, University of Denver, University of Indianapolis, Washburn University, Whittier College and Willamette University. “More than 10 years” means 20 years for Oxy alumni, and an average of 15-20 years for other schools that participated in the survey.

**Figure 2. Graduate/professional degrees received or currently pursuing**



Note: These are based on responses from the 202 Oxy alumni and 2,909 alumni from other schools who graduated 1 and 5 years ago who are currently enrolled in graduate/professional schools or have already received their degrees.

## Findings

Alumni rated Oxy strongest in “faculty interest in teaching and students” as well as in “overall satisfaction with Oxy degree and experience” (figure 3). Rating scores were also high for “student-faculty interaction” and “classroom experiences”. Scores were moderately high for “feeling of connectedness to Oxy”, and modest for “preparation for current career”, “preparation for social and civic involvement”, and “exposure to diversity”.

The areas where Oxy scored modestly can be targeted for improvement. The potential for improvement becomes especially apparent when Oxy scores are compared to that of other schools (which are mostly national liberal arts colleges) in the HEDS survey. The one area that stands out in terms of score differences between Oxy and others is in “feeling of connectedness” of alumni to their alma mater (figure 4). Meanwhile, the differences between Oxy and others in terms of “preparation for social and civic involvement” and “exposure to diversity” are not practically significant, on average.

Oxy alumni also scored lower (by 5-10 percentage points) in “preparation for current career”, compared to other schools. But this is inconsistent with the rest of the data, as 77-80% of recent Oxy graduates are currently employed, compared to only 66-78% of same-cohort graduates from other schools (refer back to figure 1). If the proportion of those currently in graduate/professional schools is added, the difference (around 2 percentage points across 3 of the 4 graduation cohorts) between Oxy and other schools is not practically significant. But for those who graduated 10 or more years ago—Oxy has an edge: 70% of Oxy alumni said they still “use skills gained as an undergraduate”, compared to only 63% among alumni from other schools. Note that 65% of Oxy alumni from this particular cohort have had 5 or more

jobs, compared to only 50% of alumni from other schools. From these trends, it is possible that Oxy offers a kind of liberal arts education that gives its students skill sets that can be applied across different careers other than the students’ chosen majors.

In an effort to uncover any intergroup differences across race/ethnicity and sex, means were compared using Analysis of Variance (ANOVA) for “faculty interest in students and teaching”, “student-faculty interaction outside of class”, “classroom experience”, “exposure to diversity”, “overall satisfaction with undergraduate education” and “connectedness to Oxy as alumni.” None of these variables of interest showed any statistically significant intergroup differences on race/ethnicity or sex.

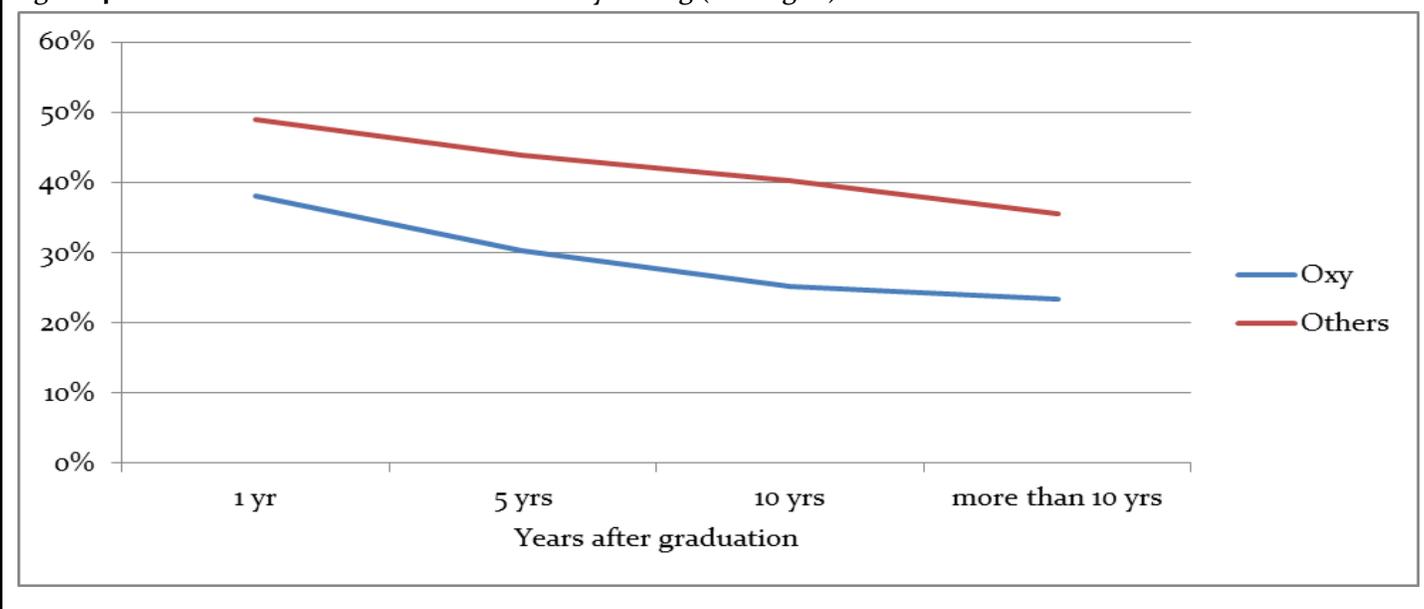
## VI. Affordability of Degree and Salary

Oxy is proud to be able to meet 100% of its students’ financial needs through scholarships, grants and self-help aid. This is significant, considering Oxy is one of only over 60 schools that can make this claim, out of the 383 liberal arts colleges and national universities that are considered “top tier”.

Among those who responded to the survey, 57%-66% borrowed to finance their undergraduate education (figure 5), depending on year graduated. Meanwhile, figure 6 shows a juxtaposition of estimated loan repayments and current personal income before taxes of survey respondents (as of June 2014).

For new graduates from Oxy with college debt, loans as of graduation (estimated at \$35,000 from survey responses) were higher than current salaries (estimated at \$30,000), on average. Note that loans and current income for new graduates from Oxy and the 32 other schools in this survey are at

**Figure 4. Percent of alumni who answered “very strong (feeling of) connection” to alma mater**



the same levels. This loosely translates to loan payments that may be 16% (assuming 6% interest rate over 10 years), on average, of current personal annual income before taxes as self-reported in June 2014, for 2013 graduates. Thankfully, this situation is short-lived. Loan payments may go down to about 7% of average current income (figure 6), for those who have graduated 5 years ago.

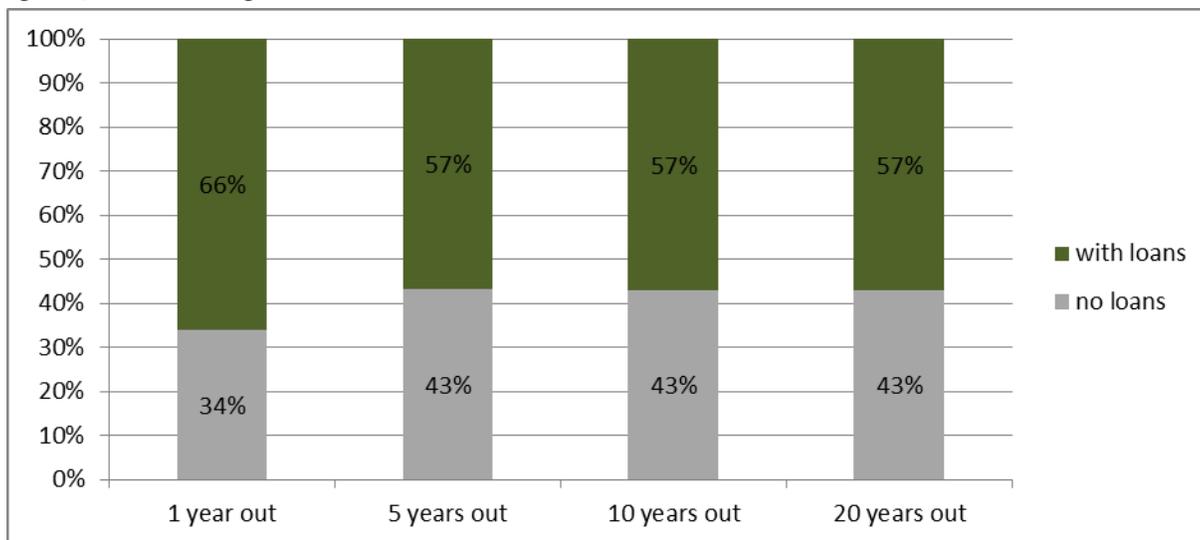
It should be noted that Oxy student loans are on the rise, especially when comparisons across years graduated are done using loans adjusted for inflation. Figure 7 shows actu-

al versus adjusted loan amounts, with the latter being converted into how much loans would have been in 2013 U.S. dollars.

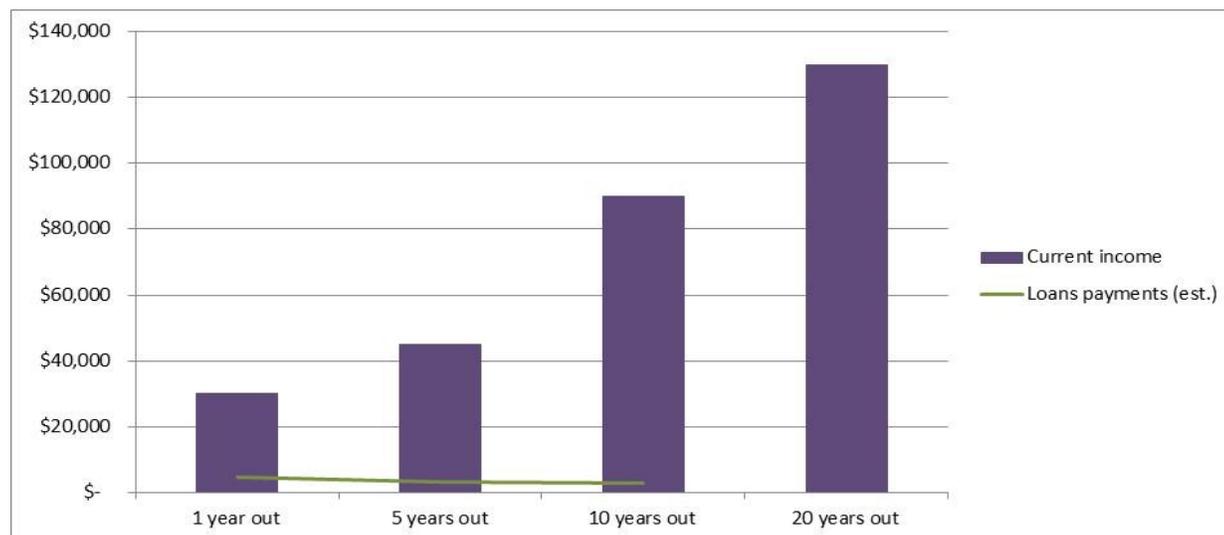
### VII. Recommendations

Amidst the cries of alarm in the media on the net costs of a liberal arts education, Oxy has much to be glad about. Oxy graduates are either mostly employed or in graduate/professional schools, and those that are employed at least 5 years after graduation earn salaries way higher than their

**Figure 5. Percent of graduates with loans**



**Figure 6. Estimates of Oxy alumni’s loan payments and average current income as of June 2014**



**Notes:**

1) Only those who were employed (full-time, part-time, multiple jobs) as of the survey, are included in the above computation (this subgroup would be about 85% of the respondents to the survey). Those in graduate/professional school, in the military, volunteering or not employed are excluded.

2) Current income are self-reported. For current income, response choices are: No earned income, less than \$20,000, \$20,000–\$39,999, \$40,000–\$59,999, \$60,000–\$79,999, \$80,000–\$99,999, \$100,000–\$119,999, \$120,000–\$139,999, \$140,000–\$159,999, \$160,000–\$179,999, \$180,000–\$199,999, \$200,000–\$219,999, \$220,000–\$240,000, more than \$240,000. Current income data in figure 6 are calculated as the weighted average of responses across the ranges. Once the average range is determined, the midpoint for that range is used. Loan payments are based on inflation-adjusted loan amounts from figure 7, estimated over 10 years at 6% interest rate, with 1% loan fees.

student loan payments, on average.

Regarding potential areas for improvement, Oxy may look into the areas where it scored modestly: “preparation for current career”, “exposure to diversity” and “preparation for social/civic involvement”. While scores in these areas were modest, it bears noting that Oxy does not appear to lag behind the other schools with any practical significance.

The other category that stands out as needing attention is alumni’s “feeling of connectedness” to Oxy. It is true that scores for this category are actually moderately high, so there is no need for alarm. However, the potential for improvement becomes apparent when Oxy scores appear consistently low across graduation cohorts when compared to the “feeling of connectedness” among alumni of other institutions in the survey.

There is a gap in the research literature when it comes to alumni connectedness and engagement. But non-academic articles offer interesting insights. Sharman (2013) found in an informal poll that 100% of the hundreds of alumni from many colleges he surveyed “view an email, phone call or direct mail piece from their alma mater as an ‘ask’ for money BEFORE they even open it.” Oxy already has initiatives in place that are considered as best-practices in reaching out to alumni. However, it can only benefit both Oxy and its alumni if it continuously seeks to “build a strategy around the needs of alumni, not the university” (Catherwood, 2013).

Another area for improvement is the increasing amounts of college debt among recent Oxy graduates. Although this is part of a larger trend in higher education, as evinced by the trend’s consistency across institutions in this survey, Oxy needs to do more to counteract this trend within its institutional context, in keeping with its commitment to access. Fortunately, senior administrators at Oxy have endowment-raising as one of their top priorities, which should mean even more financial resources for students in the near future.

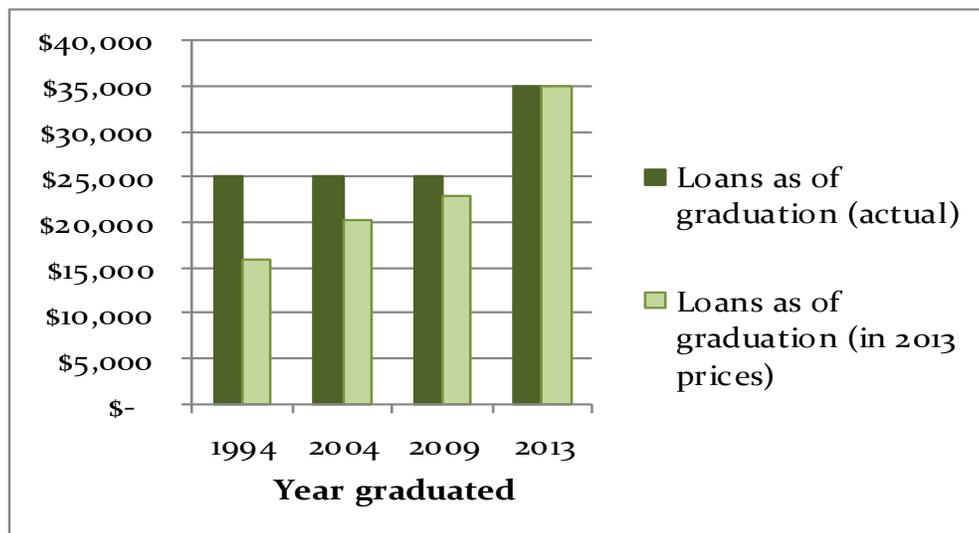
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Figure 7. Oxy student loans (actual vs adjusted for 2013 prices), on average



Note: For loans, response choices are: No loans, less than \$5,000, \$5,000–\$9,999, \$10,000–\$14,999, \$15,000–\$19,999, \$20,000–\$29,999, \$30,000–\$39,999, \$40,000–\$49,999, \$50,000–\$59,999, \$60,000–\$69,999, \$70,000–\$79,999, \$80,000–\$89,999, \$90,000–\$99,999, and \$100,000 or more. To derive “loans as of graduation (in 2013 prices)”, the 2013 consumer price index for all urban consumers (CPI-U) was divided by the CPI-U for each year graduated. The resulting quotient (1 for 2013, 1.085 for 2009, 1.233 for 2004 and 1.572 for 1994) was then used as a denominator, with the actual loan for the year graduated as a numerator. The original source of CPI-U data is the Bureau of Labor Statistics, as shown in [http://inflationdata.com/Inflation/Consumer\\_Price\\_Index/HistoricalCPI.aspx?reloaded=true](http://inflationdata.com/Inflation/Consumer_Price_Index/HistoricalCPI.aspx?reloaded=true).

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### Appendix: Survey items for constructs

Construct 1	"Faculty interest in teaching and students"
Survey Items	-genuinely interested in students -interested in helping students grow in more than just academic areas -good at providing prompt and useful feedback -willing to spend time outside of class to discuss issues of interest and importance to students
Cronbach's alpha	0.83
Construct 2	"Student-faculty interaction outside of class"
Survey Items	-non-classroom interactions with faculty positively influenced personal growth, values and attitudes -non-classroom interactions with faculty positively influenced intellectual growth and interest in ideas -non-classroom interactions with faculty positively influenced professional goals and aspirations -developed close, mentoring relationship with at least one faculty member -satisfied with opportunities to meet and interact informally with faculty members
Cronbach's alpha	0.88
Construct 3	"Classroom experience"
Survey Items	-faculty posed challenging ideas in class -faculty asked how a particular course concept could be applied to an actual problem or situation -faculty asked students to point out any fallacies in ideas, principles, or points of view presented in the course -faculty asked students to argue for or against a particular point of view -faculty challenged students' ideas in class -students challenged each other's ideas in class
Cronbach's alpha	0.85
Construct 4	"Exposure to diversity"
Survey Items	-had serious discussions with other students about different lifestyles and customs -had serious discussions with faculty whose political, social, or religious opinions were different from my own -had serious discussions with other students whose political, social, or religious opinions were different from my own
Cronbach's alpha	0.81