OUS ADVANCED GRADUATE SURVEY 2001
METHODOLOGY AND RESULTS

SAMPLE QUOTAS
PROFILE OF SURVEY RESPONDENTS
REASONS FOR PURSUING DEGREES
GRADUATE STUDENT EXPERIENCES
COSTS, VALUE, FINANCIAL AID
SATISFACTION
SOCIOECONOMIC ACHIEVEMENT

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INTRODUCTION

As part of a larger effort to better serve the needs of Oregonians, the Oregon University System (OUS) contracted with the Oregon Survey Research Laboratory (OSRL) to conduct research on the long-term consequences of graduate education. Working closely with representatives of OUS, OSRL planned, pre-tested and implemented a telephone survey of 1,064 alumni who had received masters and doctorate degrees in 1999-2000.

This report summarizes the survey methodology and results. The first section reports the survey methodology, the second section digests the substantive survey results, and the conclusion briefly summarizes the study findings.

SURVEY METHODOLOGY

This section describes OSRL's procedures for developing and implementing the telephone survey instrument and sample to conduct this representative survey. OSRL's quality control procedures were thoroughly presented in the inter-agency agreement and are not repeated.

SURVEY INSTRUMENT

The survey instrument resulted from OSRL and OUS collaborating to identify concepts and operationalize them into survey questions. Many questions replicate those asked in 1996 "Graduate Degree Recipients Survey" that OSRL conducted with OUS (then, OSSHE). Individual questions were pretested for clarity, accuracy, validity, and variability of response. The entire instrument was pretested for flow, comprehensiveness, length, and factors which affect respondents' cooperation and attention. The survey instrument was then programmed into OSRL's computer-aided telephone interviewing (CATI) system and further pre-tested.

OSRL obtained human subjects approval from the University of Oregon. OUS representative, Nancy Goldschmidt, approved the final version of the survey instrument and attended project-specific interviewer training.

The survey's broad goals were to obtain valid and reliable information from OUS institutions' graduate degree recipients regarding their assessment of the value and quality of the education

they received. More specifically, the survey was designed to target the following broad and specific topical areas:

1. **Reasons for pursuing a graduate or professional degree,** including to earn more, improve promotion chances, learn a new line of work, improve skills in a current line of work, obtain or maintain a professional license or certification, improve knowledge generally, and personal fulfillment and other intangible reasons.
2. **Graduate student experiences,** including academic preparation, research and teaching assistantships, research and policy development, years to degree, why graduate school took longer than anticipated, whether respondents felt a faculty member cared about them, and employment while enrolled.
3. **Costs, value, and financial aid,** covering financial resources (family, employer, grants, fellowships, assistantships, tuition remission, work-study, loans, and total loan amount), and perceptions of cost versus value of the degree, value currently, and value in five years,.
4. **Satisfaction** with the graduate education received, such items as a poor to excellent rating; satisfaction levels for research facilities, teaching, and advising; global satisfaction; importance of graduate education to person; open-ended commentary on how to improve graduate programs; and whether the respondent would select the same major, degree, major professor, and university again;
5. **Educational experience since receiving an OUS graduate degree,** current enrollment and plans for enrollment, degree sought, institution, location, and reasons;
6. **Socioeconomic achievement,** including labor force status, occupation, industry, and class of work, consequences of graduate degree for employment (higher earnings, promotion, new position or title, more authority, more people to supervise, more respect), relevance of graduate degree to employment, job satisfaction, use of a foreign language on the job, geographic area of employment, and personal income;
7. **Demographic and student characteristics,** such as age, race/ethnicity, sex, and citizenship, as well as campus-supplied database information.

Section 2 of the three-ring binder provides a facsimile of the survey instrument, with embedded "topline" frequency results.

SAMPLE

This study employed a random-from-list sampling procedure with quotas, implemented by OSRL in the following steps. First, OSRL determined the minimum sample sizes needed to meet 92.5% confidence intervals, based upon the number of graduate degree recipients in the 1999-2000 academic year (i.e., the population) for each institution, within degree categories (i.e., non-education Master's, education Master's, Doctorate, Professional). Each combination of degree and institution represents a sample quota. In all, this study had 16 sample quotas, as Table 1 illustrates.

Then, each OUS institution provided OSRL with lists of alumni and basic alumni information for the populations (names, telephone numbers, student data). OSRL Project Directors Brian Wolf and Vik Gumbhir divided the lists by degree type and randomly selected graduate degree recipients to call for survey interviews. The campuses' population lists were provided by their alumni associations. *The extent to which alumni associations' lists represent the underlying graduate populations is unknown*, but they are the best lists available.

List problems became evident as OSRL began to draw samples for each quota. We found that roughly 1.75 telephone numbers were needed to complete a single interview, because over one-third of telephone numbers provided by the alumni associations were inaccurate (as discussed below). Only four of the 16 quotas met this criterion; i.e., for only four of the 16 quotas did

Table 1: OUS Institution/Degree Sample Quotas

Institution	Degree	Population Size	Sample Size Needed for 92.5% Confidence	Sample available (telephone numbers)*	Excess/ deficit phone numbers	Completed Interviews	Confidence Level Achieved
EOU	Master's-Educ	91	60	99	39	60	+/-7.4
OSU	Master's	423	122	212	90	122	+/-7.5
OSU	Ph.D	158	82	96	14	54	+/-10.8
OSU	Master's-Educ	165	84	67	-17	54	+/-10.9
OSU	Professional	41	33	25	-8	7	+/-33.7
PSU	Master's-Educ	323	112	223	111	113	+/-7.4
PSU	Master's	769	140	472	332	140	+/-7.5
PSU	Ph.D	31	26	20	-6	12	+/-22.1
SOU	Master's	63	46	49	3	28	+/-13.8
SOU	Master's-Educ	170	85	127	42	62	+/- 9.9
UO	Master's	610	134	388	254	134	+/-7.5
UO	Ph.D	138	77	90	13	40	+/-13.1
UO	Master's-Educ	221	97	163	66	74	+/- 9.3
UO	Professional	184	89	136	47	65	+/- 9.8
WOU	Master's-Educ	215	95	219	124	95	+/-7.5
WOU	Master's	138	15	6	-9	3	+/-56.0
EOU**	All Grad Degrees	91	60	99	39	60	+/-7.4
OSU	All Grad Degrees	787	321	400	79	237	+/-5.3
PSU	All Grad Degrees	1123	278	715	437	265	+/-5.3
SOU	All Grad Degrees	233	131	176	45	90	+/-8.1
UO	All Grad Degrees	1153	397	777	380	313	+/-4.7
WOU	All Grad Degrees	353	110	225	115	98	+/-8.4
All OUS	Master's-Educ	1185	149	898	749	458	+/-3.6
All OUS	Master's	2003	157	1127	970	427	+/-4.2
All OUS	Ph.D	327	112	206	94	106	+/-7.8
All OUS	Professional	225	97	161	64	72	+/-9.5
	OUS TOTAL	3740	1297	2392	1095	1063	+/-2.5

* *Cases were provided by campus alumni associations. The original 2,392 cases were later supplemented with 17 additional found cases. The extent to which alumni association lists accurately represent graduate populations is unknown. In the 2001 OUS undergraduate alumni survey, OSRL found that racial/ethnic minorities were notably more likely to join alumni associations than whites.*

** *University-specific and all-OUS sample data are unweighted; confidence intervals are illustrative only.*

alumni associations supply sufficient cases to meet the criterion of 1.75 telephone numbers per completed interview: PSU education Master's degrees, PSU non-education Master's, UO non-education Master's, and WOU education Master's. Four of the 16 quotas had insufficient cases to satisfy the minimum sample sizes necessary to ensure a 92.5% confidence interval, even assuming that every graduate's telephone number was valid, every graduate was available, and every interview could be completed: WOU non-education Master's degrees, OSU professional, OSU education Master's, and PSU doctorates. The eight remaining quotas had insufficient cases to satisfy the criterion of 1.75 telephone numbers per completed interview, but three came close; and for two of those three, the quota list quality sufficed for the scanty quantity.

Despite these difficulties, OSRL was able to achieve the predetermined sample size for six of the 16 quotas. Importantly, no single campus's alumni list proved more successful than the others' for survey interviewing purposes.

The first panel of Table 1 illustrates the sample quotas difficulties described above by displaying the following information for each quota:

- campus- and degree-specific graduate population sizes;
- sample sizes necessary to achieve 92.5% confidence intervals;
- sample available, i.e., the number of cases with telephone numbers provided by alumni associations;
- differences between sample available and sample needed, with negative numbers indicating insufficient cases to reach needed sample sizes;
- interviews completed; and
- confidence levels achieved for each quota. For more detail on confidence levels, see http://darkwing.uoregon.edu/~osrl/miscpapers/sampler.html, OSRL's "Sampler" utility.

The second panel of Table 1 presents each campus' combined graduate degree data. The right-most column shows that the ultimately achieved sampling error varies inversely with campus size (i.e., smaller campuses tend to have larger confidence intervals), ranging from ±8.4 percentage points for WOU to ±4.7 percentage points for UO. The third panel shows all-OUS data by degree type. Note that sample data in the bottom two panels are unweighted and provided for illustration only.

From the 2,409 OUS graduate degree recipients supplied for the 16 quotas, OSRL Project Directors randomly selected 2,191 to fulfill the predetermined quota sizes (i.e., 218 cases were not used). OSRL interviewers made 19,643 dial attempts to complete this study, with up to 35 calls to each valid telephone number. Of the cases selected, 669 (31%) were disconnected, non-working, nonresidential, fax/modem lines, or otherwise ineligible for the study. For another 214, OSRL interviewers were able to obtain new telephone numbers to track graduates to new residences or locations. For 49 cases (2%), the status could not be determined (e.g., the numbers were continuously busy or no one ever answered). For 20 cases (1%), respondents were gone or ill for the study dates, or unable to be located. Finally, 34 cases (2%) were ineligible, because the alumni database information supplied did not match the respondent's experience. (In most of these cases, degree year was wrong.) From the remaining 1,419 telephone numbers, 1,064 interviews were completed.

Interviewing achieved a net CASRO response rate of 75% and a refusal rate of 4%.[1] Section 4 of the three-ring binder provides a complete sample and response rate report.

Survey sampling errors assist data users in assessing how much confidence to place in a particular survey result. Large random samples reduce sampling error. Survey question results in which there is low variability also have less sampling error; e.g., a variable with a 50/50 proportional split has wider confidence intervals than a variable with a 5/95 proportional split. For this study, sampling errors vary substantially by the quota cell, as Table 1 displays. For variables with a 50/50 proportional split, in quotas with the intended confidence intervals of $\pm$7.5 percentage points, analysts can be 95% sure that the true population figure lies between 42.5% and 57.6% (i.e., 50% $\pm$7.5 percentage points). For variables with a 5/95 proportional split, the confidence interval is $\pm$3.3, which means analysts can be 95% sure that the true population figure is between 91.7% and 98.3% (i.e., 95% $\pm$3.3 percentage points).

DATA COLLECTION

Project-specific interviewer training for this study was conducted on April 23, 2001 in a classroom setting. OUS representative Nancy Goldschmidt attended to introduce and frame the study generally and to answer specific issues interviewers raised during the session. The computer-training and role-playing components of interviewer training took place April 24th. Section 3 of the three-ring binder provides summary interviewer training information and instructions. Only experienced interviewers worked on this study.

Interviewing was conducted every day from April 24th to June 4th from 9:00 a.m. to 9:00 p.m. (except Sundays, which started at 11:00 a.m.) until the target quota sample sizes of completed interviews were achieved. The telephone interviews averaged 14 minutes in length. All interviews were conducted in English.

Geographic mobility among new graduate degree recipients is natural, as they obtain new positions consistent with their new degrees. Anticipating this, OSRL interviewers were trained to do their best to obtain tracking telephone numbers to reach mobile respondents. They were able to obtain new locating information on one-fifth of the sample. Needless to say, this new locating information cannot be shared with the OUS campuses' alumni associations, because the survey data are confidential and all identifying information has been stripped from it.

The survey was conducted using OSRL's CATI system in which sampling, interviewing, and data entry is accomplished interactively and seamlessly. The programmed survey instrument contains all survey questions, interviewer probes for consistency, and pre-coded answer categories. Skip logic is programmed into the system, preventing inappropriate or incorrect questions from being asked. In administering the survey, trained interviewers use telephone headsets in sound-reduced carrels at computer workstations connected by an NT network. Randomly distributed telephone numbers appear automatically at each workstation and are mated to pre-programmed survey instruments. Telephone calls are placed with a computer

[1] CASRO = Council of American Survey Research Organizations. CASRO response rates, the most rigorous industry standard, are calculated in following manner. Completed interview / (Eligible sample + ((Eligible sample / (Eligible sample + Ineligible sample)) * Sample with unknown status)). Source: Robert M. Groves, *Survey Errors and Survey Costs*, 1989.

keystroke, preventing dialing errors. As respondents answer questions, interviewers enter the data into the CATI data file. Telephone numbers and other identifying information are automatically stripped from the interview data to ensure confidentiality. The CATI system eliminates out-of-range responses and wild codes by validating each response interactively and not allowing inappropriate responses to be entered. Thus, the CATI system eliminates many routine and error-prone coding and data entry tasks and enables OSRL to maintain the highest quality control standards.

After data collection was complete, the open-ended responses to questions were downloaded from the dataset. Three trained coders conducted open-ended coding to Census 2000 industry and occupation codes, including verification and check-coding of each others' work. Interviewer supervisors also conducted random verifications of completed interviews for each interviewer, to ensure data quality and respondent satisfaction. OSRL Project Directors merged the survey data with each campus's administrative data and subsetted the data by campus.[2]

SURVEY RESULTS

This section first presents a profile of survey respondents for context, and then presents the overall survey results, roughly organized around the survey subject areas.

PROFILE OF SURVEY RESPONDENTS

Fifty-nine percent of OUS graduate degree alumni in the sample are female. The sample's median age is 36, ranging from age 22 to age 66. Respondent age distributes as: 3% less than age 25, 52% ages 25-34, 23% ages 35-44, 19% ages 45-54, and 2% ages 55 and greater. OSU and UO graduates, and those who obtained professional degrees, tend to be younger than average and are more likely to be male. Women are over-represented in the older age categories. Women and men also achieved quite different degrees; for example, 75% of all education-related Master's degrees went to women, and 60% of doctorates went to men. The index of dissimilarity shows that 24% of women would have to change the type of degree they received in order to have the same distribution as men.

Most survey respondents (91%) are U.S. citizens. OSU and UO have more non-citizens among the graduate degree alumni, at 14% and 15% respectively, compared to 1%-6% for the other campuses. Non-citizens were substantially more likely to obtain doctorates and non-education Master's degrees than citizens.

The sample's race/ethnic composition is 85% white, 6% Asian and Pacific Islander, 3% Hispanic, Latino, Mexican, or Latin American, 3% refused, and all other minority groups combined fall below 4%. Refusal to disclose race was highest at UO and PSU at 4%, followed by OSU at 3%. These campuses also appear to have larger nonwhite compositions than the smaller OSU institutions. Nonwhites comprise somewhat larger-than-expected proportions of doctorates, non-education Master's degrees, and professional degrees, at 19%, 16% and 15%, respectively, compared to 13% of the entire sample (excluding refusals). Substantially more graduates of Asian and Pacific Island descent obtained doctorates and non-education Master's

[2] N.B: OUS campuses' alumni association database records are inconsistent in their coding of certain items, such as race/ethnicity. Making them consistent was not part of OSRL's contract. However, should OUS desire to make these records easier to use for future survey work, OSRL representative will offer ideas based on experience.

degrees; indeed, 35% of whites would have to change degrees received to have the same distribution as them.

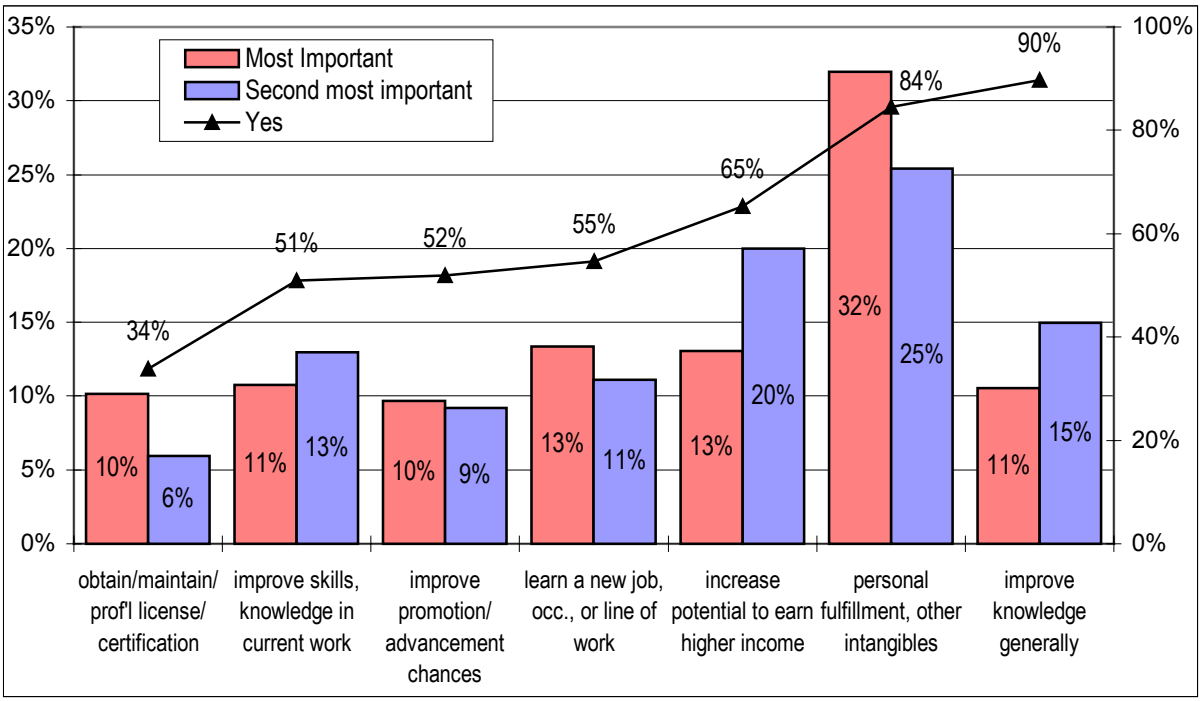
Survey respondents' labor force activity is higher than the state population's, with 94% working for pay (81% full time, 11% part time, and 2% equally employed and taking classes), and just 1% unemployed and looking for work. Those out of the labor force include 3% taking classes, 2% homemakers, and fewer than 1% each disabled, volunteering, full-time students, and retired. Master's degree recipients, both education-related and non-education, have higher levels of part-time employment (11-12%), but non-education Master's degree recipients were also the most likely to be continuing their education (7%). Unemployment is highest for PSU graduates, at 3%. See below for more detail on graduates' socioeconomic achievement.

Reasons for Pursuing Graduate or Professional Degrees

The survey asked a series of "yes/no" questions about why graduates pursued advanced degrees. Figure 1 illustrates respondents' answers. Ninety percent said they did so "to improve knowledge generally," 84% "for personal fulfillment or other intangible reasons," 65% "to increase potential to earn a higher income," 55% "to learn a new job, occupation, or line of work," 52% "to improve chances for promotion or advancement," 51% "to improve [their] skills and knowledge in a line of work in which are already employed," and just 34% said "to obtain or maintain professional license or certification."

Anticipating that large numbers of advanced degree recipients would rank these items highly, the survey next asked which one of the above reasons for pursuing advanced degrees was "most important" and "second most important." Personal fulfillment ranked highest for both: 32% of respondents identified it as most important and 25% chose it as second most important.

Figure 1: Why Pursued a Graduate or Professional Degree

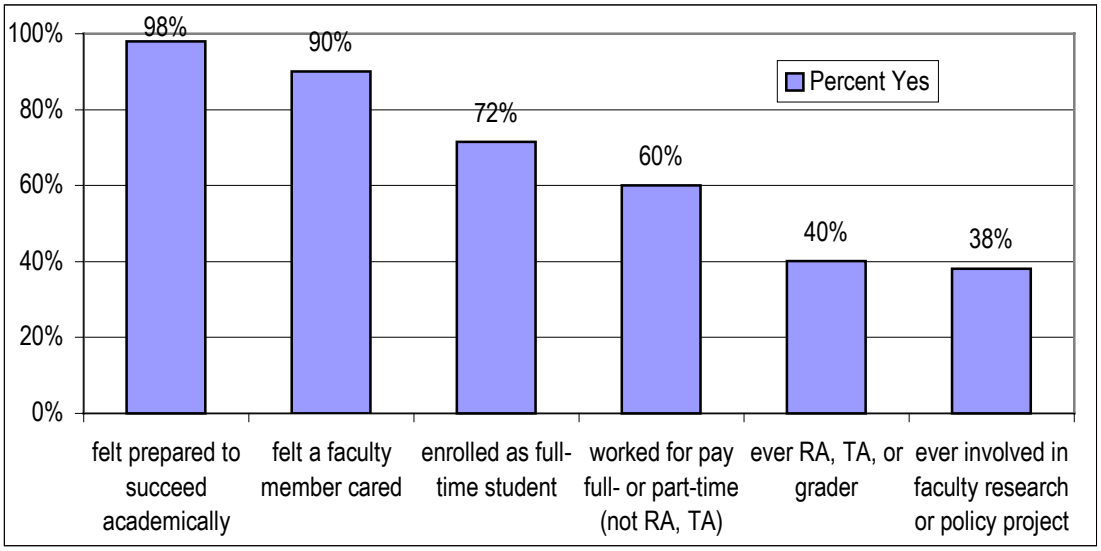


GRADUATE STUDENT EXPERIENCES

Nearly all the degree recipients (98%) said they were prepared to succeed academically when they started their graduate program, with 79% "very prepared" and 19% "somewhat prepared;" see Figure 2. Fully 90% felt that there was a faculty member who cared about them while they were working on their graduate degree.

Seventy-two percent were full time students, 21% were part-time students, and 7% said "it varied" at different times in their graduate careers. Sixty percent worked for pay at jobs during the academic year while taking classes in graduate school in positions *besides* graduate teaching or research assistantships (34% full time and 26% part-time). Forty percent of survey respondents served as research assistants, teaching assistants, or graders for classes. Thirty-eight percent reported that they were involved in projects with faculty members on research or policy development.

Figure 2: Graduate Student Experiences



Most graduate degree recipients (78%) took between one and three years to complete their advanced degrees. Twenty-two percent took 4-8 years and just one percent took 9-20 years to complete their advanced degrees. Almost 80% of respondents reported that the number of years it took to complete their degrees was about the same as they expected (see Figure 3). However, 16% said it took longer than they expected. Respondents explanations of why graduate school took longer than they expected may be found in the section of the three-ring binder entitled "Narrative Answers to Open-ended Questions."

COSTS, VALUE, AND FINANCIAL AID

Graduate programs' tuition and fees cost about what 60% of survey respondents expected, but 32% said costs were greater than they expected, and 7% reported costs as less than they expected. A plurality, 46%, reported that the value of their degree, so far, was greater than they expected, 30% said it was about the same, and 21% said it was less than they expected. In five years, 50% expect the value of their degree to increase, while another 44% expect it to stay at the same level.

Figure 3: Were the Years, Costs, and Value More, Less, or about What Graduates Expected? Will the Degree's Value Increase, Decrease, or Stay the Same?

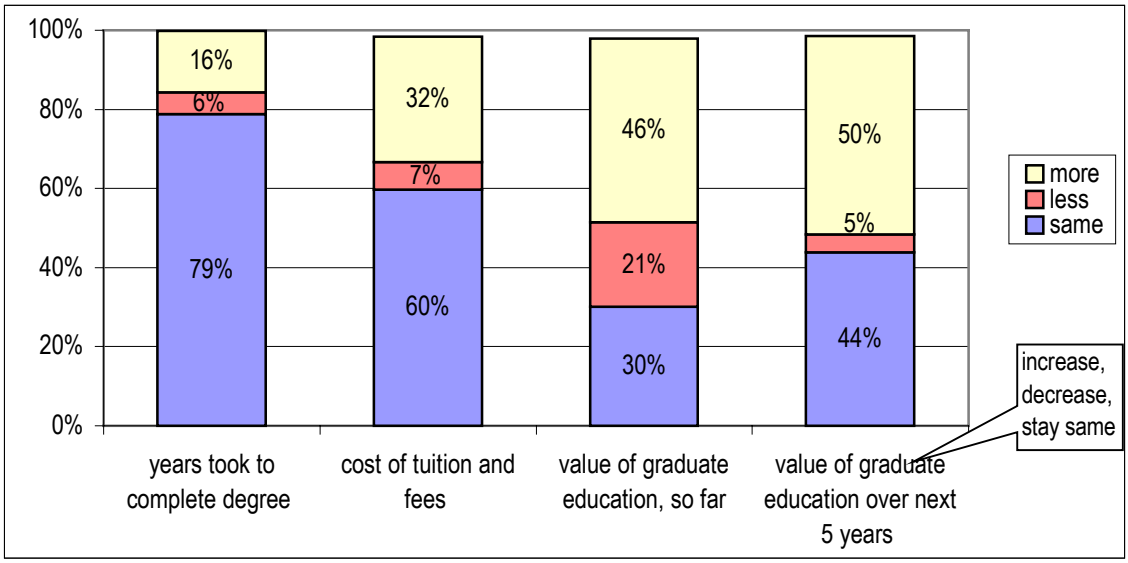
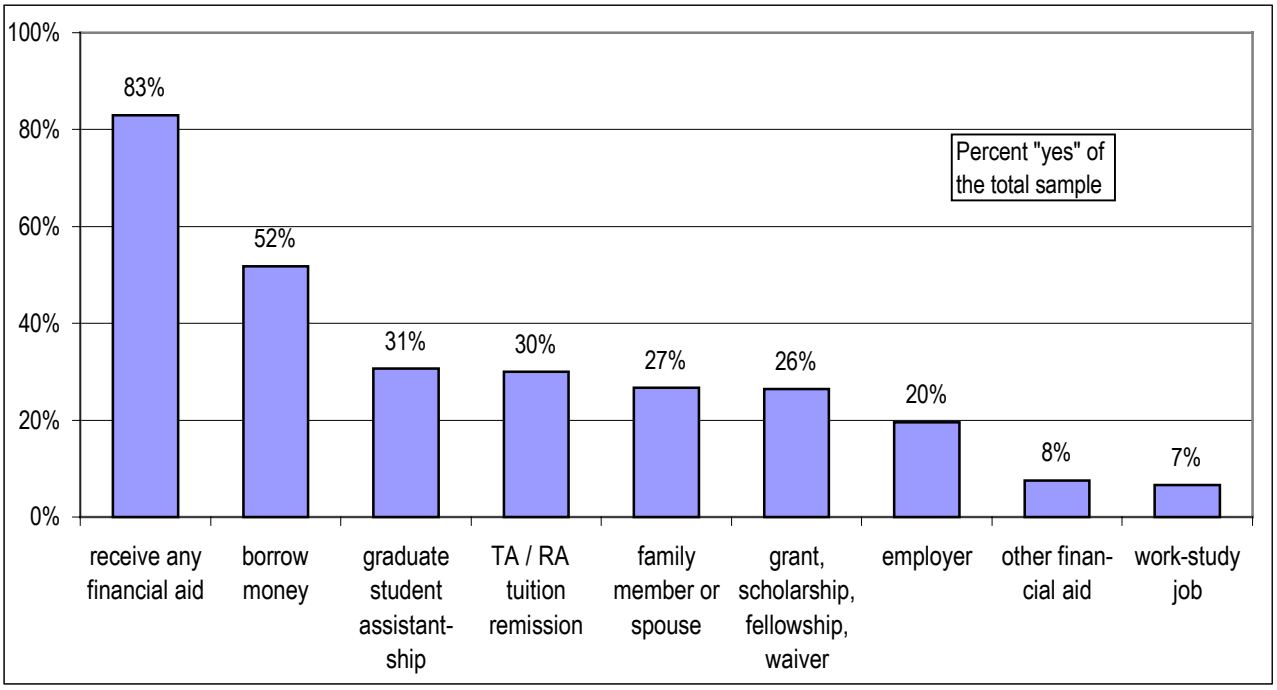


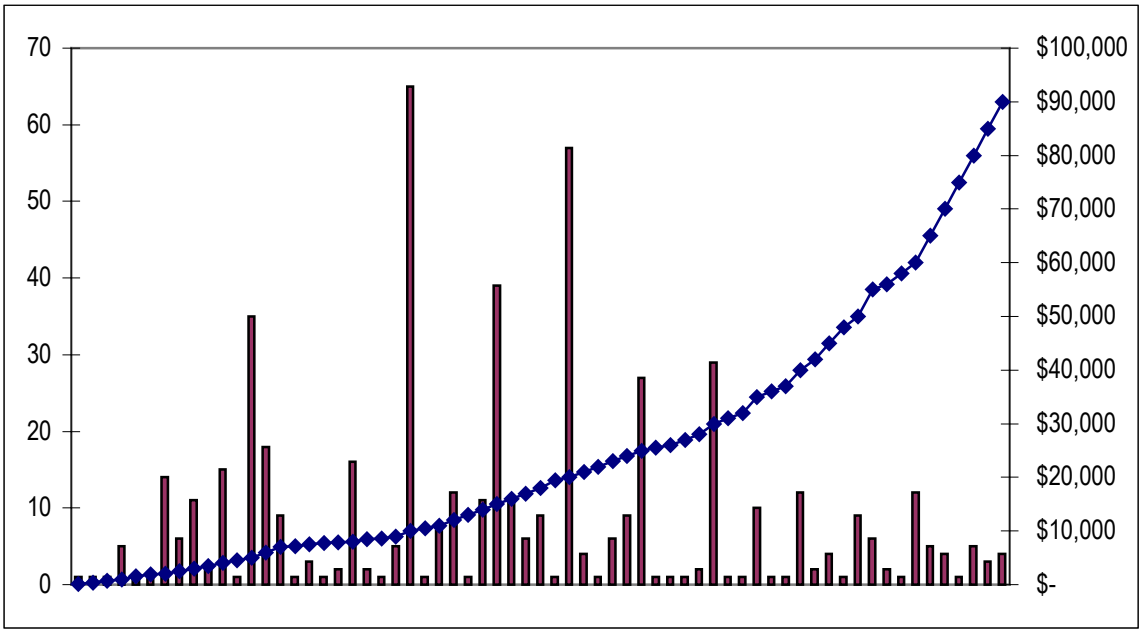
Figure 4: Financial Aid or Monetary Help while Completing Degree



Most graduates (83%) received some kind of financial aid or monetary help while pursuing their advanced degree. Figure 4 illustrate the types of financial aid they received. Half of all survey respondents (52%) reported borrowing money, taking out a loan, or running up expenses on credit cards. The median amount of money borrowed was $15,000. Thirty percent of those with loans said that they borrowed $100 - $9,000, 30% borrowed $10,000 - $19,000,

20% borrowed $20,000 - $29,000, 11% borrowed $30,000 - $49,000, and 9% borrowed $50,000 - $90,000 (see Figure 5).

Figure 5: Amounts of Money Borrowed for Graduate Education (52% of sample)

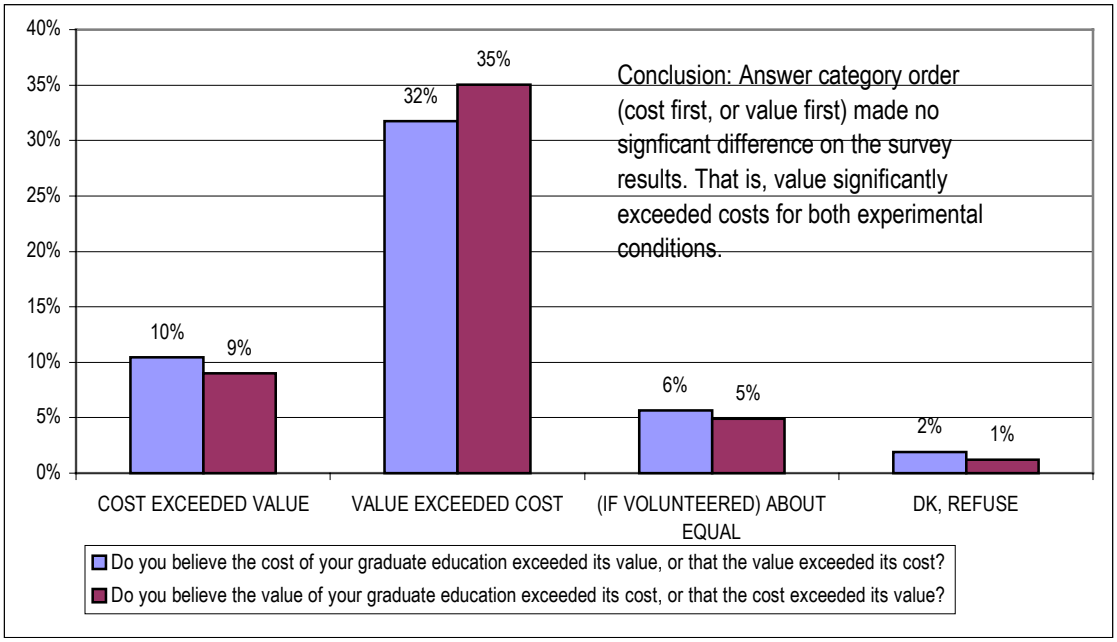


To assess graduates' beliefs about the value of their education compared to its cost, OSRL embedded an experiment based on cognitive memory theory in survey methodology. The theory says that respondents who are not motivated to answer questions fully will choose the first answer category offered (a primacy effect) or the last one offered (a recency effect). To test for this, we asked the question two ways, varying answer category order:

1. Please take a moment to think about the cost of your graduate education compared to its value. Do you believe the cost (of your graduate education) exceeded its value, or that the value (of your graduate education) exceeded its cost?
   PROBE: Do you believe that the cost of your graduate education was greater than the value of your graduate education, or do you believe that the value of your graduate education was greater than the cost?
2. Please take a moment to think about the value of your graduate education compared to its cost. Do you believe the value (of your graduate education) exceeded its cost, or that the cost (of your graduate education) exceeded its value?
   PROBE: Do you believe that the value of your graduate education was greater than the cost of your graduate education, or do you believe that the cost of your graduate education was greater than the value?

Respondents were randomly assigned to receive one version of the question; 530 answered the first and 535 answered the second. Figure 6 reveals no significant difference in the results. Thus, we can say with confidence that in comparing the cost of graduate education to its value, 67% of the survey respondents thought that the value exceeded cost, 20% thought that the cost exceeded its value, and 11% thought that the cost and value were about equal.

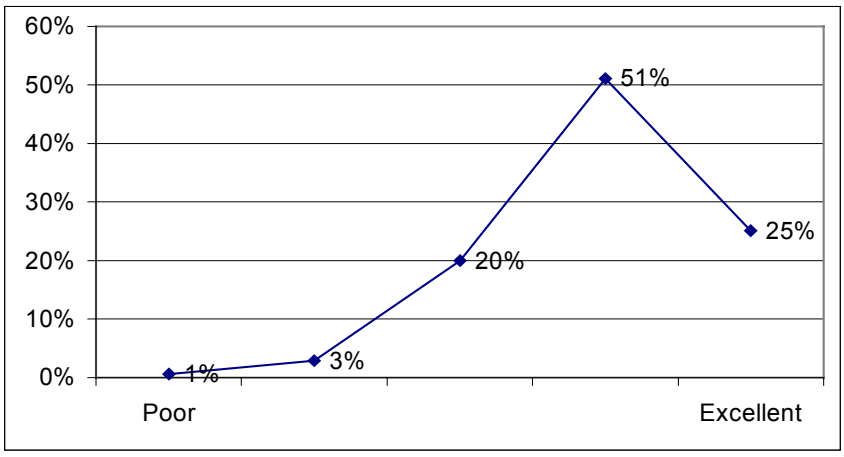
Figure 6: Value vs. Cost of Graduate Education: Split-half Experiment Results



SATISFACTION

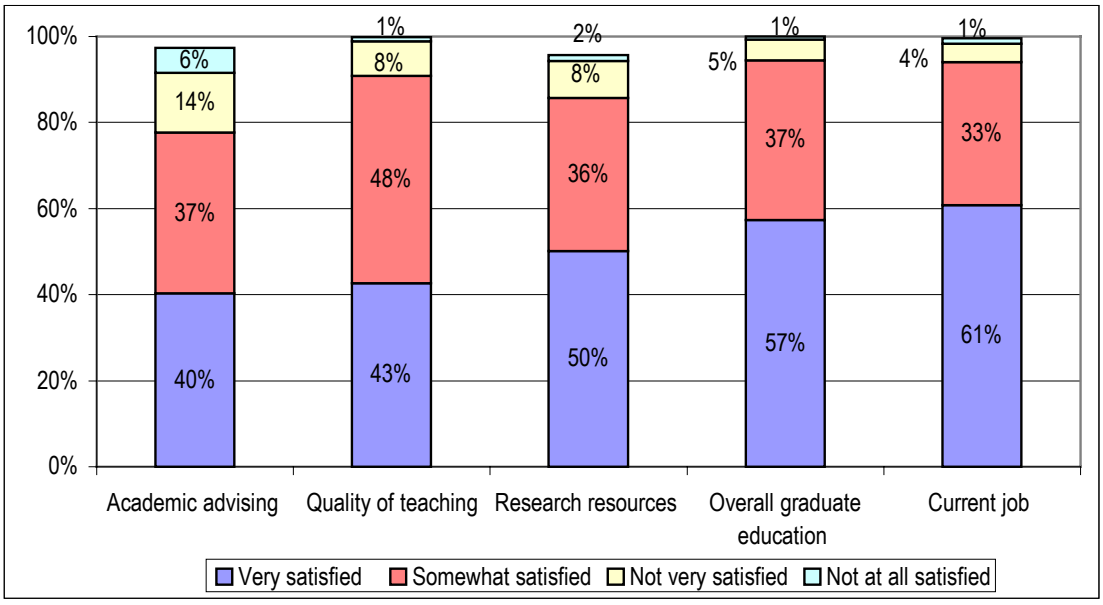
Overall, graduate degree recipients voiced high levels of satisfaction with their graduate education at OUS institutions on numerous measures tapping a range of experiences. Figure 7 shows that 25% of the survey respondents rated the education they received as "excellent" and less than one percent said "poor," based on their experiences since graduation. The middle categories – which OSRL labeled in the banner tables and topline results but were un-labeled in the interview – were 51% "very good," 20% "good," and 3% "fair."

Figure 7: Based on your experiences since graduation, how would you rate the education you received for that degree, on a scale from 1 to 5, with 1 being poor and 5 being excellent?



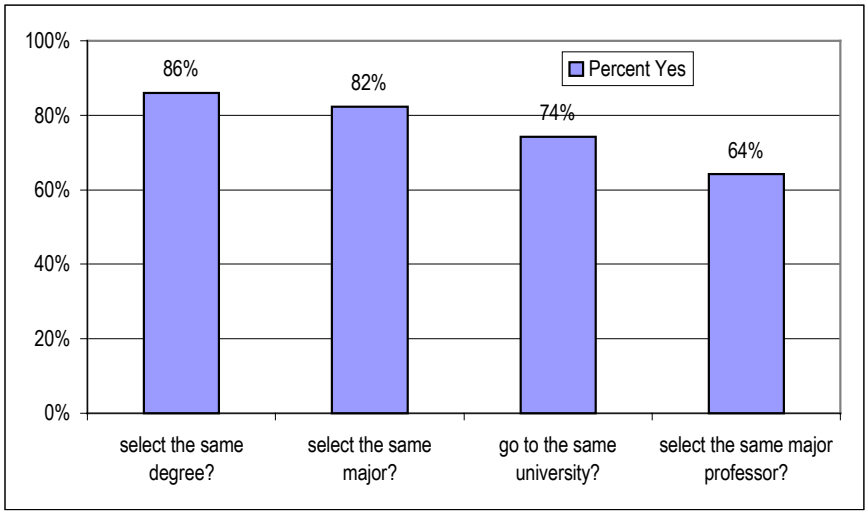
When asked about their satisfaction with the academic advising they received in graduate school, 40% of respondent were "very satisfied" and 37% "somewhat satisfied," as Figure 8 shows. For the quality of teaching in their graduate programs, 43% of OUS graduate degree recipients were "very satisfied" and 48% "somewhat." Fifty percent were "very satisfied" and 36% "somewhat" with the research resources available to graduate students, such as library collections and materials, laboratories, and computer equipment. For overall satisfaction with graduate education, 57% were "very satisfied" and 37% "somewhat."

Figure 8: Satisfaction with Graduate Education and Current Job



Another indicator of satisfaction is whether someone would choose the same experience again. When asked, 86% said they would select the same degree, 82% would choose the same major, 74% would attend the same university, and 64% would select the same major professor (see Figure 9).

Figure 9: If you could start your graduate career over, would you…

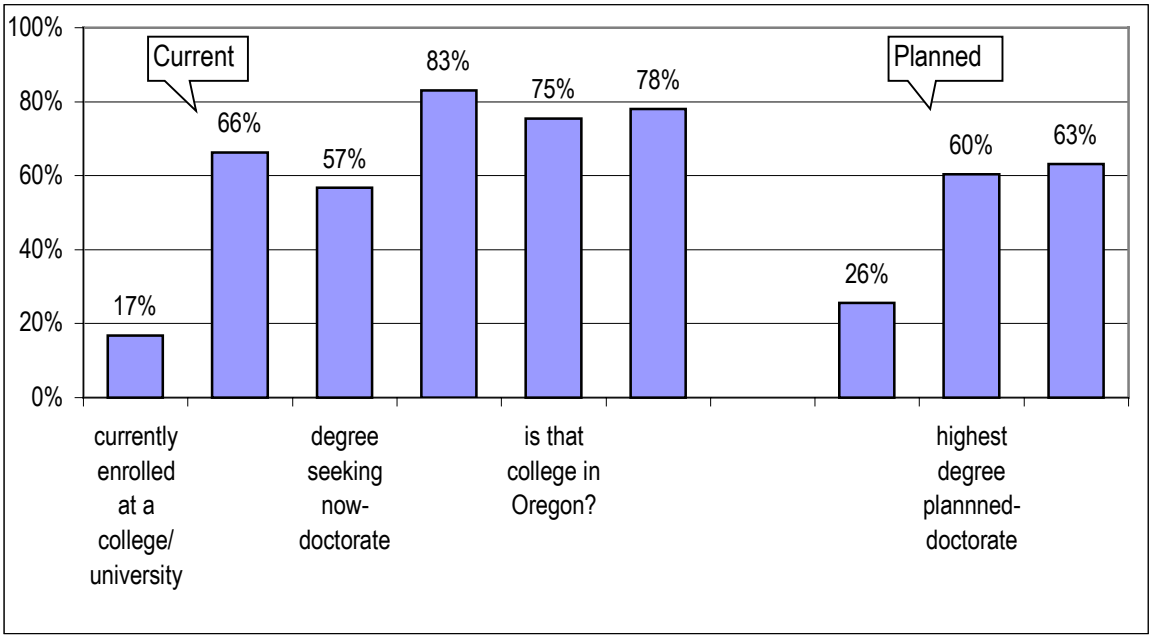


EDUCATIONAL EXPERIENCES SINCE RECEIVING AN OUS ADVANCED DEGREE

At the time of the survey, 17% of respondents were enrolled and taking classes at colleges or universities (see Figure 10). Of those 178 persons, 66% were working toward degrees, licenses, or certificates. Fully 83% were enrolled in public universities, 14% in private colleges, and 2% in community colleges. Three-quarters reported attending Oregon colleges. Over half, 57% were working on doctoral degrees, 25% on certificates or licenses, and 11% on Masters' degrees. In addition, 78% said that one reason "for getting another degree is to improve [their] skills to get a better job."

The survey asked those not currently enrolled whether they plan to return to college to obtain another academic degree or a higher degree. Twenty-six percent plan to do so. When asked the highest academic degree they plan to achieve, 60% said a doctorate, 19% another Master's degree, 7% a professional degree, and 12% said "other" (see narrative answers to open-ended questions). As with those currently working on higher degrees, 63% said that one reason "for getting another degree is to improve [their] skills to get a better job."

Figure 10: Continuing Education - Current (n=178) and Planned (n=242)



SOCIOECONOMIC ACHIEVEMENT

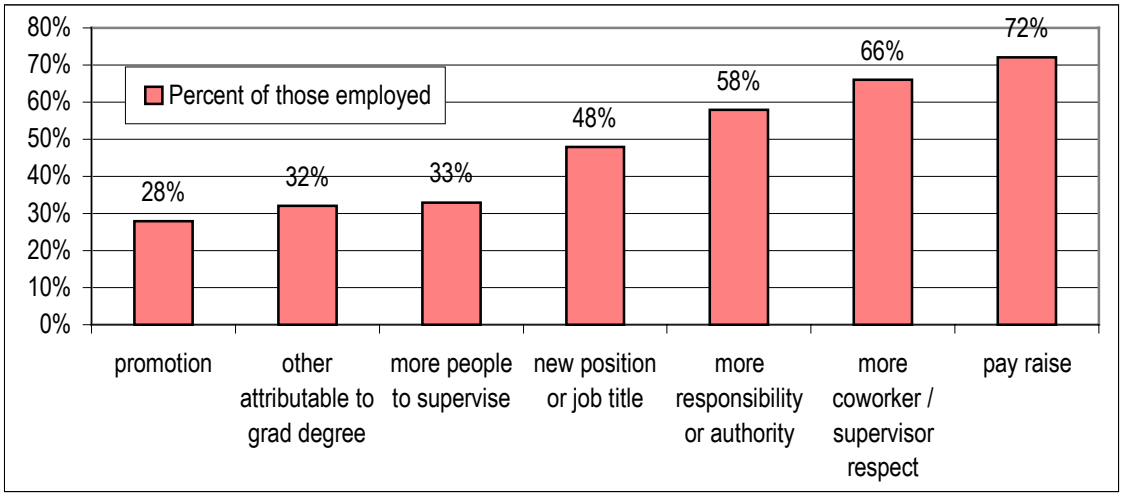
Graduate degree recipients from 1999-2000 already feel the positive effects of their degrees on their careers. Over seventy percent stated that their graduate degrees already have improved their employment or career opportunities.

As indicated earlier, 60% of respondents worked full- or part-time while obtaining their graduate degrees during the academic year. Of these, 52% continued working for the same employer after receiving their graduate degrees, 38% found a new employer, and 3% continued briefly with the old employer and then found a new one. Of those with new employers, 48%

found the job within one month of completing their graduate degrees. Another 25% found a new employer within two or three months. Just 5% took 12-18 months to find a new employer.

Figure 11 shows the ways in which employed survey respondents believe earning a graduate degree affected their employment experiences. Seventy-two percent attributed a pay raise to their new degree, 66% reported receiving more respect from coworkers and supervisors, 58% received more responsibility or authority on the job, 48% obtained a new position or job title, one-third supervise more people, 28% got a promotion, and 32% reported "something else" attributable to their new graduate degree.

Figure 11: How Earning Graduate Degree Affected Employment Experiences



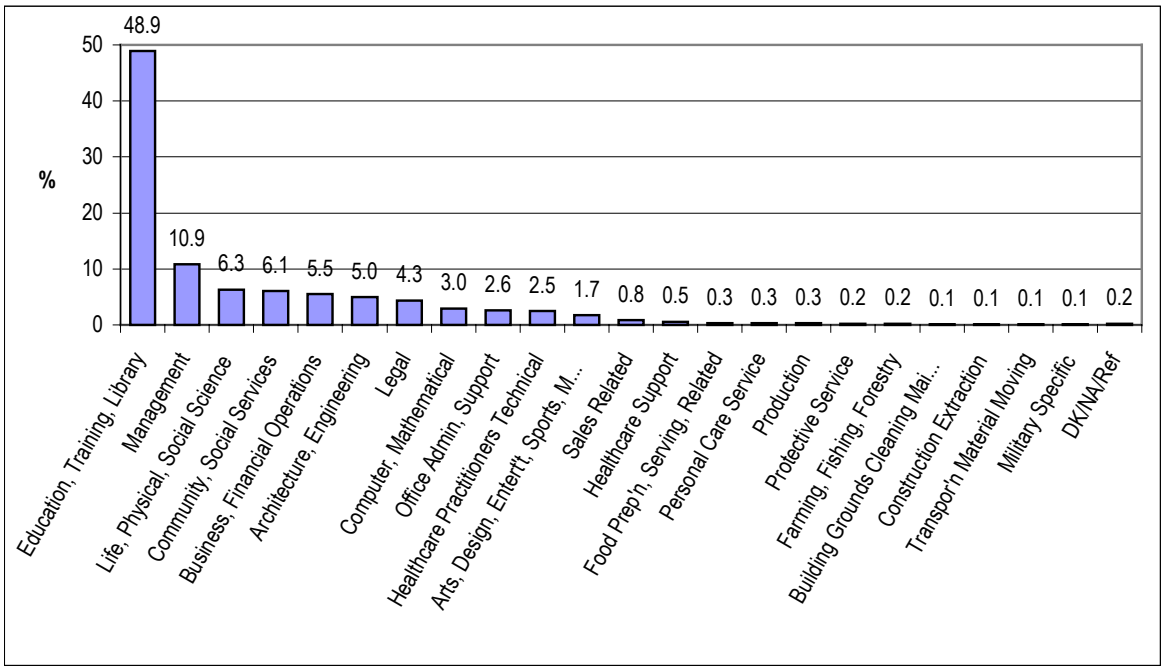
As presented before, 94% of respondents were employed at the time of the interview (81% full time, 11% part-time and 2% equally employed and taking classes). Two-thirds (69%) work in Oregon, 6% in Washington, 5% in California, 18% elsewhere in U.S., and 2% outside the U.S. Of those in Oregon, one-third reported working in the Portland tri-county area: 18% in Multnomah, 10% in Washington, and 5% in Clackamas Counties. The next largest locations were 16% in Lane County, 10% in Jackson County, 7% each in Marion and Benton Counties, 4% in Linn County, and 3% each in Umatilla and Deschutes Counties.

Twenty-five percent of employed graduate degree recipients reported using a language other than English on the job, particularly Hispanics and American Indians.

Of those employed, 65% work for the federal, state or local governments, 24% for private companies, 8% for nonprofit organizations, and 3% employ themselves.

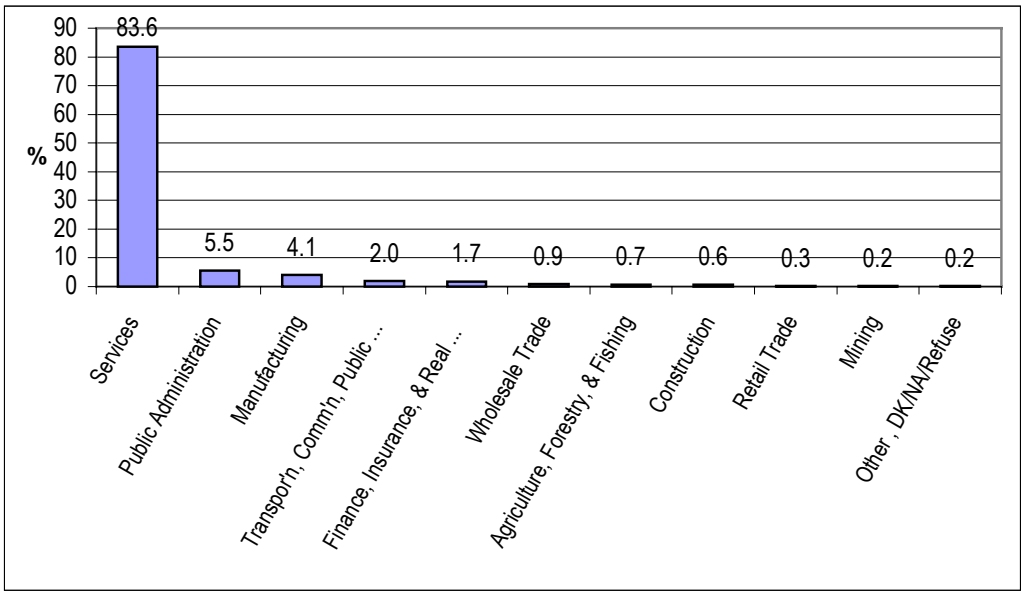
Figures 11 and 12 illustrate graduate degree recipients' occupation and industry classifications. Nearly half have occupations associated with teaching, education, training, or libraries, while another 11% work in management-related positions. About 6% each work in the sciences (life, physical, social), community and social services, and business or financial operations. Another 4% work in legal-related occupations and 3% work in computer or mathematics-related positions. The remaining 13% are distributed across about 15 broad occupational groups.

Figure 12: Occupational Distribution (Census 2000 Codes)



Graduates' employment concentrates highly in the industry sector called "services," at 84%. Public administration employs another 6% and manufacturing employs 4%. The Census 2000 industry classification scheme's broad service category includes public and private school teaching, as well as community and social service organizations funded by governments. To best understand its dimensions, analysts could cross-tabulate it with occupation, above, and class of worker (public, private, nonprofit, self-employed, etc.).

Figure 13: Industrial Distribution (Census 2000 Codes)



Graduate degree recipients' personal annual wage and salary income, before taxes, distributed as 9% less than $15,000, 9% $15,000 to $25,000, 40% $25,000 to $40,000, 32% $40,000 to $70,000, 6% $70,000 to $100,000, and 2% over $100,000. Just 3% refused to answer the income question. In the higher income brackets were respondents with doctorates and professional degrees and, correspondingly, those with degrees from UO, OSU and PSU.

When asked how much their current jobs match the career objectives they had when they graduated, 41% of respondents answered that they matched "completely," 32% "a lot," 16% "some," 5% "a little," and 6% "not at all." The survey asked the 11% whose jobs do not match their career objectives if the discrepancy was by choice, and 60% answered "yes." Thirty-four percent of them had had a job directly related to their graduate degree.

Nearly all those employed are satisfied with their current jobs, at 94%, including 61% "very satisfied" and 33% "somewhat satisfied" (see Figure 8). Yet 26% were seeking new jobs at the time of the interview. This figure includes 22% of those employed full-time, 45% of those employed part-time, and all but one of the unemployed (93%). Of those seeking new jobs, 64% prefer a position more closely related to their college degrees or career goals, and 91% prefer a full-time job.

SURVEY CONCLUSIONS

The survey results show conclusively that, on average, OUS graduate degree recipients had positive experiences in graduate school, report high levels of retrospective satisfaction with their graduate education, were highly employable upon graduation, and have succeeded well in the short time since receiving their degrees. With the majority staying in state, these advanced degree holders contribute to Oregon's economic, political, and cultural life.

This survey provides a wealth of data for further analysis – by institution, by degree type, by demographic categories (age, race/ethnicity, sex, rural/urban counties, etc.), and by the various topics discussed above. This summary ignores the wealth of qualitative information in the thousands of detailed answers to open-ended questions that OUS graduates carefully and generously provided. Moreover, comparison of this survey's results to the parallel survey conducted by OSRL in 1996 would allow an examination of secular, cross-sectional change over time.

We trust that this unique dataset will not gather dust on a shelf but will be used both to inform educational policy-making and provide feedback to the survey respondents who gave their time and thoughtful answers to the study questions.