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A Profile of Selected Characteristics of the 1993 Western Washington University Graduating Class

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Executive Summary

Information for this report was obtained from the Student Tracking System. The report presents findings intended to provide insight into various characteristics of the 2198 graduates who matriculated during the 1992-93 academic year (Fall 1992 through Summer 1993), 58.7% of whom were females and 41.3% males. Natives (students who began their education at Western as first-time frosh) made up 44.2% of the 1993 graduates, and transfers 54.3%. Most graduates were between the ages of twenty-one to twenty-four years old (63.0%). No graduate was younger than twenty-one years old; the oldest graduate was seventy-three. Current Washington residents made up 94.6% of 1993 graduates.

Some 1993 graduates chose not to disclose their ethnicity (6.9%). Of the rest, the majority were white, non-Hispanics (85.1%). Ethnic-minorities made up 7.0% of 1993 graduates, up from 5.3% in 1992. To put a perspective on what that figure means, the enrollment report from the Fall of 1989 was referenced. All other considerations being equal, figures from that report would give some approximation of ethnic graduation rates. And, indeed, in the Fall of 1989 ethnic-minorities comprised approximately 7% of the overall population of Western students. Although only tracked for two years, there appears to be a trend that ethnic-minority students are graduating in the same relative proportion that they are entering Western as frosh.

The majority of 1993 graduates matriculated through the College of Arts & Sciences, followed by the College of Business & Economics, the Woodring College of Education, the College of Fine & Performing Arts, Fairhaven College, and Huxley College. The percentage of graduates from the College of Arts & Sciences fell from the 1992 percentage, as did percentages in the college of Business & Economics. All other colleges saw their percentages rise.

By referencing the source of college credits (whether taken at Western or elsewhere), it was established that approximately forty percent of all graduates with native admit status (who began at Western as first-time frosh) had taken courses at colleges other than Western. In other words, for the graduating class of 1993, the chances were only about 60/40 that a student who began their academic career at Western would actually take all of his or her courses at Western.

The average number of credits earned by 1993 Western graduates was 201.9. The median number of credits earned (50th percentile) was 193.0 credits. The most number of credits earned by a 1993 graduate at the time of matriculation was 384. The average number of quarters attended Western by the entire 1993 graduating class was 11.4. For graduates with native admit status, the average number of quarters attended Western was 14.3; for graduates with transfer admit status, the average number of quarters attended Western was 9.0.

The average gpa earned at Western by 1993 graduates was 3.12. A 3.00 or better was earned by 59.0% of the graduates. Females earned a 3.17 and males a 3.01. Graduates with native admit status earned a 3.01 and graduates with transfer admit status earned a 3.18. While differences in gpa by gender and admit status were statistically significant at .000, variance testing indicated that very little of the significance could be explained by the variables alone. In other

words, while the differences in gpa were real enough, gender and admit status were probably only accounting for four percent or less of the findings.

Graduates majoring in Human Services earned a Western gpa of 3.62, the highest overall, followed by Education (3.46), Music (3.44), and Liberal Studies (3.30). The differences in gpa's found across majors was also statistically significant at .000; moreover, variance testing indicated that a graduate's major accounted for 18 percent of the variance--which is statistically quite a strong finding. When referenced against reports from earlier years, the trend is for Human Services and Education majors to have higher Western gpa's than any other major, regardless of mitigating influences like age or gender.

Honors were earned by 6.6% of the 1993 graduates, down from 8.1% in 1992. Females and transfer were more likely to earn honors than males or natives. Females, of course, also earned higher Western gpa's and would thus be expected to earn more honors. The Western gpa's of transfers, on the other hand, may have benefited from the fact that much to all of their lower division work was done at schools other than Western, where factors such as study habits and academic maturity had a chance to develop.

Although far more 1993 graduates than in years previous were required to actually pass the Junior Writing Exam (259), still most were not required to pass either section. Nonetheless, the percentage of graduates passing either section of the JWE increased in 1993 (87.4% passed the objective section, and 63.4% passed the essay section).

In 1992, there were 100 graduates who had participated in varsity athletics. Most were white, non-Hispanics (87.6%), natives (77.0%), and males (64.0%). Varsity-athlete graduates earned degrees in 28 of the 47 departments offering degrees at Western. The most frequently earned degree was FMDS, followed by Physical Education, Management, Psychology, Biology and Accounting.

Analysis by statistical correlation and multiple regression indicated that if one wanted to utilize an indicator that might predict how well a student would do at Western, using Western gpa as a yardstick, the most optimal for natives would be high school gpa and WPCT-verbal score, and for transfers would be transfer gpa.

An analysis was also done on a select group of native graduates who had taken a freshmen attitudes and characteristics survey in 1989. Nearly sixty percent of these students completed their degrees in twelve quarters, compared to only about fourteen percent of the entire population of graduates with native admit status. By analyzing both the graduate report and the survey data, it became apparent that the following items may have influenced the ability of these graduates to matriculate in a timely fashion: 1) as early as high school, they had developed somewhat better study habits than their peers; 2) they may have been more thorough in their planning and preparations for college; 3) they had performed better academically in high school than their peers; 4) very few of them took BS degrees; 5) they had a more `up-beat' attitude about going to college generally and about Western specifically; and 6) their parents' background included exposure to, if not actual success at a college career themselves.

Introduction

Information for this report was obtained from the Student Tracking System, jointly maintained by the Registrar's Office and the Office of Institutional Testing and Assessment. The report presents information intended to provide insight into various characteristics of graduates who matriculated during the 1992-93 academic year (Fall Quarter, 1992, through Summer Quarter, 1993) This cohort will hereafter be referred to as WWU's 1993 graduates. Special consideration was taken in analyzing data that might clarify the issues surrounding the length of time it takes WWU graduates to earn their degrees.

As in years past, comparison analyses will be performed by gender, age, and admit status. Overall percentages for ethnicity, veteran status and disability will also be reported, but no comparison analyses will be done for these categories as frequencies are too low for meaningful analyses. There will be, however, a complete listing of descriptive statistics for ethnicity found in Appendix A.

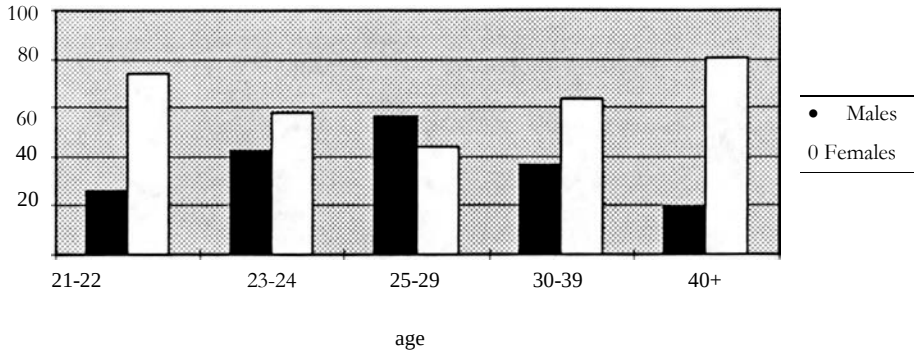
Findings will be presented in summary form, and where appropriate, by tables and graphs. From the Student Tracking System, numerous variables were selected for analysis, including for the variables tracking Western's student athletes. For the list of selected variables, see Appendix B. Summaries are presented along thematic categories.

Student Information

Between Fall Quarter, 1992, and Summer Quarter, 1993, there were four graduation ceremonies at WWU, with 2198 students matriculating, up from the 1992 figure of 2073. Females made up 58.7% and males 41.3% of the 1993 graduates--figures nearly identical to those found in 1992. Native students--those who began their education at WWU as first-time freshmen--made up 44.2% of 1993 graduates (down from 45.6% in 1992); transfers made up 54.3% of the 1993 graduates (up from 51.6% in 1992), and students in special categories (summer transfers, etc.) 1.5% of the 1993 graduates (down from 2.8% in 1992).

Most 1993 graduates were between the ages of twenty-one to twenty-four years old (63.0%, up from 61.9% in 1992). There were no graduates younger than twenty-one years old; the oldest graduate was seventy-three. The only age category in which males constituted the highest percentage of graduates was that of 25-29 year-olds. (See Figure 1.)

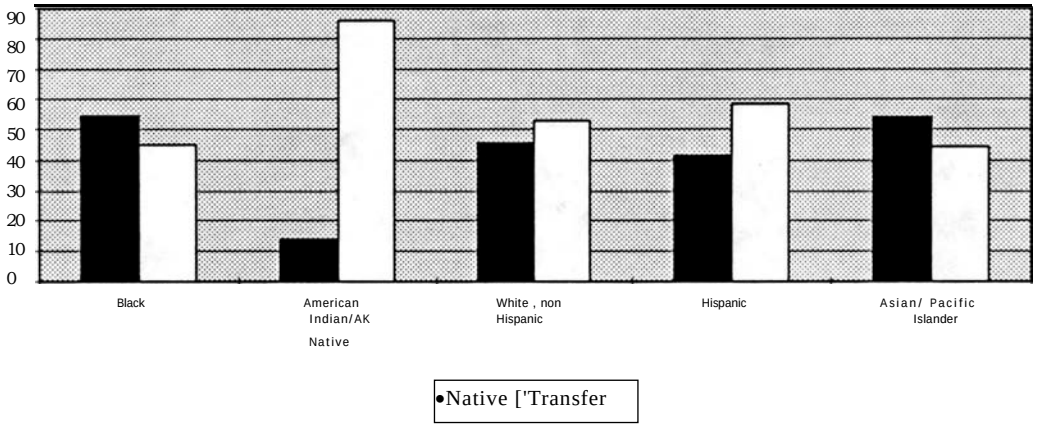
Figure 1: Age at Graduation by Gender



Current Washington residents made up 94.6% of 1993 graduates. There were 64 veterans who graduated, as well as 58 graduates listing disabilities.' Of 1993 graduates who opted to disclose their ethnicity, the majority were white, non-Hispanics (85.1%). Ethnic-minorities made up 7.0% of 1993 graduates, up from 5.3% in 1992. Foreign students made up 1.0% of 1993 graduates, and students choosing not to disclose their ethnicity made up 6.9% of 1993 graduates.

Within ethnic categories, comparisons by admit status provided some findings of interest. Both Black and Asian/Pacific Islander graduates were slightly more likely to have entered Western as frosh (i.e., to be Western natives). White, non-Hispanic and Hispanic graduates were each more likely to have transferred to Western, while American Indian/Alaskan Natives were almost *all* transfers to Western. (See Figure 2.)

Figure 2: Admit Status by Ethnicity



[1] Categories (with frequencies) included: learning disabled (42), ambulatory/mobility (7), visually disabled (3), hearing disabled (3), and miscellaneous (3).

Most 1993 graduates began attending classes in the fall (83.3%), but far fewer graduated in the spring (48.5%, down from 52.3% in 1992).[2]

Academic Preparation

High school grade point averages (gpa's) were included in the records of 1142 of the 1993 graduates. The majority of graduates (74.4%) had high school gpa's of 3.00 or better. The mean high school gpa was 3.26, up slightly from 3.22 in 1992. The mean high school gpa of the twelve graduates with veteran status whose high school records were available was 2.90; the mean high school gpa of the twenty-six graduates with disability status whose high school records were available was 3.04.

The mean high school gpa for 1993 female graduates was 3.32, and for male graduates was 3.16. This difference in means was statistically significant (.000); however, the Eta^2 index, at .04, was weak, indicating that gender accounted for only 4% of the variability between high school gpa's of males and females. Other, and probably numerous, factors accounted for the other 96% of the variability.[3]

The mean high school gpa of 1993 native graduates was 3.28, and for transfer graduates was 3.13. This difference was statistically significant (.000), but the Eta^2 index, at .02, was even weaker than that for gender. There was, however, a considered disparity of cases between native and transfer students' high school gpa's (native = 940; transfer = 151). In comparisons, like this one, that have quite dissimilar numbers of cases, the very low Eta^2 index is of particular importance to note. Because the Eta^2 is much less effected by the number of cases than the F-test for significance, it may be fair to assert that the difference in high school gpa by admit status, in spite of having statistical significance, might still have happened by chance.

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[2] Fall = 16.7%; Winter = 23.7%; Summer = 11.1%.

[3] In this report, an F-test was used to establish whether relationships did or did not have statistical significance--which means, in this case, that the difference between the mean GPA's of males and females was substantial enough to be unaccountable by chance. The Eta-square (Eta^2) is another statistical test and is particularly valuable as a counterbalance to the F-test. The Eta-square, rather than comparing means, compares the spread of a distribution. In other words, it mathematically considers the full range of GPA's, from the highest to lowest scores. The overall distribution of GPA's is contrasted to the distribution of GPA's within each variable (in this case gender). The Eta-square has a range of measurement between 0% to 100%. In other words, any particular variable (gender, age, etc.) can account for 0% to 100% of the variance of GPA's. The Eta-square in this case is saying that 4% of the variance in GPA can be accounted for by gender. Generally, an Eta-square of around 5% is considered weak, around 10% is considered modest, and around 15% substantial. Higher indexes than these would be considered strong, and obviously, important findings. The Eta-square was considered important to include in this report because it brings a deeper understanding of the figures presented. In this, as in all of its reports, the OIAT tries to balance hard statistical analysis and common sense reporting to a wide ranging audience. We hope, obviously, that the Eta-square index will be suit both purposes.

By age category, findings indicated that the youngest 1993 graduates had the highest mean high school gpa, while the oldest graduates had the lowest. These findings were statistically significant (.000), and the Eta^2 index, at .11, indicated a modest effect.[4] (See Table 1.)

Table 1: Mean High School GPA by Age Category

Age	Mean High School GPA	Standard Deviation	Cases
21-22	**3.48**	.309	225
23-24	**3.24**	.383	716
25-29	**3.07**	.410	163
30-39	**3.06**	.390	29
40+	**3.05**	.599	8

The now-defunct Washington Pre-College Test (WPCT) was still the pre-college test score most often reported by 1993 graduates, with 1068 case listings (down from 1075 in 1992). For 1993 graduates, the mean for WPCT-Verbal was 51.7, and the mean for WPCT-Quantitative was 53.5. As a nominal basis of comparison, 1988-89 statewide figures (the last figures available) indicated that the mean for the WPCT-Verbal was 50, while the mean for WPCT-Quantitative was 54.

Scholastic Aptitude Test (SAT) scores were included in the records of 340 of the 1993 graduates (up from 205 in 1992). The mean SAT-Verbal score was 460.21, and the mean SAT-Quantitative score was 502.44. As a nominal basis of comparison, for 1993 college-bound seniors the mean SAT-Verbal score was 424 and the mean SAT-Quantitative score was 478.[5]

Analyses of WPCT scores by gender indicated that females recorded higher mean verbal scores, while males recorded higher mean quantitative scores. The difference in *verbal* score was statistically significant (.001), but had a negligible Eta^2 index (.01). The difference in *quantitative* score was significant (.000), but had a weak Eta^2 index (.03). Analyses of SAT scores by gender also indicated that females recorded higher mean verbal scores, while males recorded higher quantitative scores. The differences in SAT verbal scores were not (.456); but the differences in SAT quantitative were statistically significant (.000), although with an weak Eta^2 of .05. The conclusion would be that in 1993 Western graduates, while having statistical significance in some cases, the differences between the pre-college test scores of males and females don't indicate trends of particular strength.

Analyses of WPCT scores by admit status indicated that transfers recorded higher mean verbal scores, while natives recorded higher quantitative scores. The difference in *verbal* score

[4] Older graduates do, however, improve their grades substantially, graduating with the highest overall WWU GPA's of all age categories. (See findings under in the "Academic Performance" section of this report.)

[5] As was also noted in the report on the 1992 graduating class, dating back to 1984, the SAT scores of WWU graduates have never been lower than they have been in the last couple of years. Previous to 1990, the lowest SAT-Verbal score mean was 484.09 in 1987 and the highest was 532.75 in 1986. Previous to 1990, the lowest SAT-Quantitative score mean was 520.68 in 1988, and the highest 540.65 in 1985.

was statistically significant (.000), but had a weak Eta^2 index (.02). The difference in the *quantitative* score did not test for statistical significance. Similarly, analyses of SAT means by admit status indicated that transfers recorded both higher mean verbal and quantitative scores. The differences between mean verbal scores was statistically significant (.046), but with a weak Eta^2 of .02. The differences between mean quantitative scores was not statistically significant (.076). The conclusion would be that in 1993 Western graduates, while having statistical significance in some cases, the differences between the pre-college test scores of native and transfer graduates don't indicate trends of particular strength.

Analyses of WPCT scores by age category indicated that graduates in the outermost ranges (21-22 and 40+) recorded higher mean verbal and quantitative scores than did graduates in the middle ranges (23 through 39). For both verbal and quantitative scores, graduates 40 years old and older recorded the highest mean scores. For WPCT verbal, the differences between age categories was statistically significant, and with a modest Eta^2 index; for WPCT quantitative the differences were statistically significant, but with a weak Eta^2.

Similar trends were found for analyses of SAT scores. For both verbal and quantitative SAT scores, graduates in the outermost age categories (21-22 and 30-39) recorded higher mean verbal and quantitative mean scores than graduates in the middle ranges (23 through 29).[6] For SAT verbal scores, the differences between age categories were statistically significant (.009), but with a weak Eta^2. For SAT quantitative scores, the differences between age categories were not statistically significant. (See Table 2.)

Table 2: Pre-College Test Scores by Age Categories

Age	WPCT-V	WPCT-Q	Cases	SAT-V	SAT-Q	Cases
21-22	54.2	55.1	171	477.46	507.32	142
23-24	50.9	53.2	687	445.95	498.61	173
25-29	50.8	53.0	169	450.48	488.10	21
30-39	54.1	53.3	33	515.00	570.00	4
40+	67.9	58.0	8	n/a	n/a	n/a
significance	.000	.028		.008	.343	
Eta-squared	.06	.01		.03	.01	

College of Graduation

The majority of 1993 graduates matriculated through the College of Arts & Sciences, followed by the College of Business & Economics, the Woodring College of Education, the College of Fine & Performing Arts, Fairhaven College, and Huxley College.[7] The percentage of

[6] No graduates aged 40 or older had SAT scores in their records.

[7] Official graduates of Woodring College of Education earn only one of two academic degrees: 1) Human Services, or 2) a variety of studies loosely grouped under the heading of Special Education. Graduates with teaching credentials conferred by Woodring, even those whose degrees are Bachelor's in Education, are *officially* considered

graduates from the College of Arts & Sciences fell from the 1992 percentage, as did percentages in the college of Business & Economics. All other colleges saw their percentages rise. (See Table 3.)

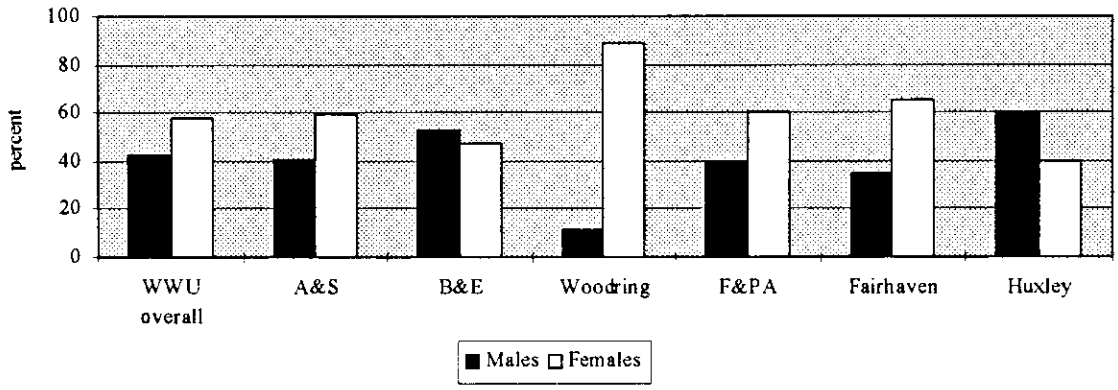
Table 3: College of Graduation

Item	1993 cases	1993 percent	1992 percent
College of Arts & Sciences	1296	57.7	63.2
College of Business & Economics	383	17.4	18.9
Woodring College of Education	211	9.6	7.5
Huxley College	128	5.8	2.8
College of Fine & Performing Arts	123	5.6	4.4
Fairhaven College	84	3.8	3.1

Most graduates with veteran status graduated from the College of Arts & Sciences (51.6%), or from the College of Business & Economics (23.4%). Most graduates listing disabilities graduated from the College of Arts & Sciences (62.1%).

When analyzed by gender, both the College of Arts & Sciences and the College of Fine & Performing Arts ratios of males to females reflected that of the population of 1993 graduates overall (58% female; 42% male). The Woodring College of Education and Fairhaven College each had a preponderance of female graduates, while males made up the majority of graduates in the College of Business & Economics and in Huxley College. (See Figure 3.)

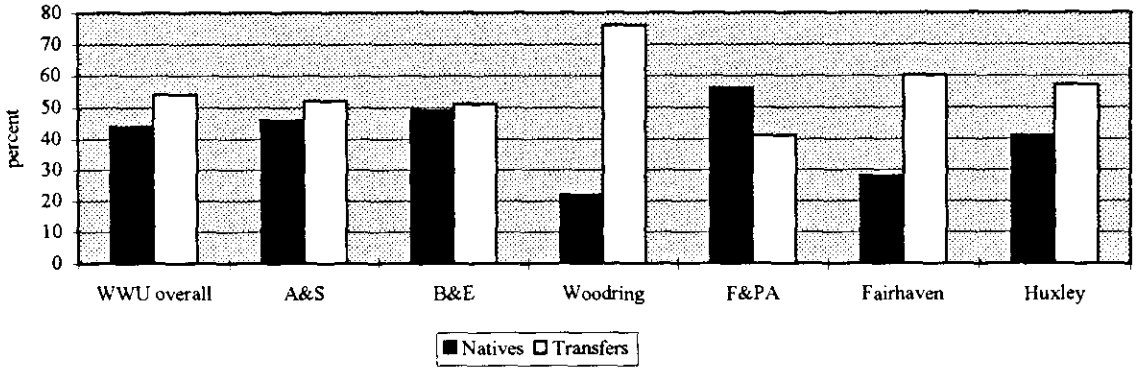
Figure 3: College of Graduation by Gender



graduates of the colleges through which their academic degrees were granted. Thus, figures reporting college of graduation do not necessarily reflect the percentage of graduates planning on a career as an elementary or secondary school teacher.

When analyzed by admit status, the College of Arts & Sciences came closest to reflecting the overall population of transfers and natives (54% transfers; 44% natives). The Woodring College of Education, Fairhaven College, and Huxley College graduated a preponderance of transfers, while natives made up the majority of graduates from the College of Fine & Performing Arts. In the College of Business & Economics, the ratio of transfers to natives was approximately equal.[8] (See Figure 4.)

Figure 4: College of Graduation by Admit Status



Analyses of college of graduation by age category was done two ways. The first was to establish the overall percentage of graduates in each college--for instance, 57.7% of all graduates took their degrees in the College of Arts & Sciences--then compare vertically. Thus, for graduates less than thirty years old, relatively similar percentages were found graduating from the College of Arts & Sciences, while for graduates over thirty years old, lower percentages were found graduating from the College of Arts & Sciences. Relative to the overall percentage of graduates, a higher percentage of *older* graduates was found in the Woodring College of Education and Fairhaven College, while a higher percentage of *younger* graduates was found in the College of Business & Economics. (See Table 4.)

Table 4: College of Graduation by Age Category (Column = 100%)

	Overall	***21-22***	***23-24***	***25-29***	***30-39***	***40+***
College of Arts & Sciences	**57.7**	63.5	60.7	60.2	49.8	25.5
College of Business & Economics	**17.4**	21.1	19.5	17.1	9.5	5.1
Woodring College	**9.6**	2.8	5.5	5.9	24.4	48.2
Huxley College	**5.8**	4.2	6.0	7.6	4.5	3.6
College of Fine & Performing Arts	**5.6**	4.9	6.2	5.7	5.0	2.9
Fairhaven College	**3.8**	3.5	2.1	3.6	7.0	14.6

[8] Traditionally, most Human Services graduates (the most common degree conferred by Woodring College) are female and transfers. Thus, as with gender, figures describing college of graduation do not accurately reflect the percentage of natives and transfers who are planning careers in elementary and secondary education.

Age category analyzed conversely--in other words, by establishing the overall percent of graduates by age category rather than college of graduation--indicated that the highest percentage of graduates were 23-24 years old, and the second highest 25-29 years old. In three colleges--Arts & Sciences, Business & Economics, and Fine & Performing Arts--age ratios reflected, relatively closely, those found overall. In the Woodring College of Education, age ratios were skewed in favor of older graduates. In Huxley College, the percentage of graduates aged 25-29 was high. In completely unique findings, Fairhaven College had, relatively speaking, a balance of graduates from all age categories. (See Table 5.)

Table 5: College of Graduation by Age Category (Row = 100%)

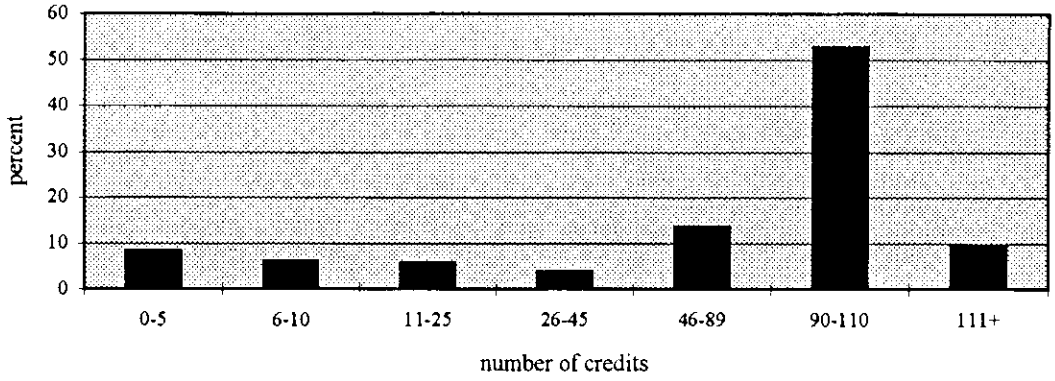
	21-22	*23-24*	*25-29*	*30-39*	*40+*
Overall	**13.0**	**50.0**	**21.6**	**9.2**	**6.2**
College of Arts & Sciences	14.3	52.6	22.5	7.9	2.8
College of Business & Economics	15.7	56.2	21.3	5.0	1.8
Woodring College	3.8	28.4	13.3	23.2	31.3
Huxley College	9.4	51.6	28.1	7.0	3.9
College of Fine & Performing Arts	11.4	55.3	22.0	8.1	3.3
Fairhaven College	11.9	27.4	20.2	16.7	23.8

Transfer Characteristics

Figures indicate that credits were transferred to Western from other institutions by nearly three-quarters of the 1993 graduating class (1619 cases out of 2198 on record, or 73.7%). Transfers, constituting 1194 cases, must by default make up the majority of this figure, yet some 425 graduates who transferred credits to Western are still left unaccounted for.[9] These graduates have no where else to come from other than the ranks of natives (those graduates who *began* their academic careers at Western), or special admit status. Thus, even subtracting the 32 special admit graduates from the equation, of the overall population of native graduates (972 cases), only somewhat more than half (59.6%) took the entirety of their academic course load at Western. In other words, for the graduating class of 1993, the chances were only about 60/40 that a student who began their academic career at Western would actually take all of his or her courses at Western. (See Figure 5.)

[9] The 1619 who indicated transferring credits minus the 1194 transfers.

Figure 5: Number of Credits Transferred to Western



The mean gpa of all credits transferred to WWU by 1993 graduates was 3.06, about the same as found in reports in recent years. Veterans had a transfer gpa of 3.11. Graduates listing disabilities had a transfer gpa of 2.98. For female graduates transferring credits, the mean gpa was 3.12, and for males the mean gpa was 2.99. The difference between transfer gpa by gender was found to be statistically significant (.000), but with a weak Eta^2 index of .02.

Analyzed by age category, transfer gpa was highest for 21-22 year-olds, and lowest for 25-29 year-olds. The differences in transfer gpa by age category were statistically significant (.000), and had a weak to modest Eta^2 index of .05. (See Figure 6.)

Figure 6: Transfer Credit GPA by Age Category

Credits Earned/Quarters Attended

The average number of total college credits earned by 1993 Western graduates was 201.92. The median number of credits earned (50th percentile) was 193.00 credits. The most number of credits earned by a 1992 graduate at time of matriculation was 384. The average

number of credits taken by males was 203.05, and by females 201.12, a difference that was not statistically significant.

The average number of total college credits earned by graduates with veteran status was 200.16. The average number of total college credits earned by graduates listing a disability was 209.58. The average number of total college credits earned by transfers was 204.55, and by natives was 198.29. Findings for admit status were statistically significant (.000), but had a weak Eta^2 index of .02. By age categories, 25-29 year-olds and 30-39 year-olds earned the most number of college credits, while 21-22 year-olds earned the least. Findings for age category were statistically significant (.000), and had substantial Eta^2 index of .12. (See Figure 7.)

Figure 7: Average Total College Credits by Age Category

Overall, the average number of quarters 1993 graduates attended Western was 11.4. For native graduates, the average number of quarters attended 14.3. For transfer graduates, the average number of quarters attended was 9.0. The average number of quarters 1993 female graduates attended Western was 11.2. For males the average number of quarters attended was 11.6. By gender, the difference was statistically significant (.006), but the Eta^2 index was a mere .003. Using overall figures for analyses of quarters attended Western by other variables (age, admit status, et. al.) were biased too greatly by the parameters of those variables to be useful. For instance, there was considerable variance by age category, but then most older students were also transfer students and needed less time at Western in order to complete their degrees.

A more useful analyses of quarters attended Western involved the following two subgroups of 1993 graduates: those transfers with AA degrees earned, and those natives who took all their college credits at Western (so-called "pure natives"). Using traditional expectations, the number of quarters needed to graduate for the former would be six, and for the latter twelve. Although such expectations may be unreasonable for an institution like Western where contemporary trends work against "traditional" college experiences, they can still serve as an

arbitrary comparison point.[10] The average number of quarters attended Western by transfers with AA degrees was 8.6, while the average number of quarters attended Western by "pure" natives was 14.7. Both figures were up very slightly from 1992 findings of 8.4 and 14.6 respectively. The percentage of transfer graduates with AA degrees able to matriculate in six quarters or less was 16.8%. The percentage of native graduates without transfer credits able to matriculate in twelve quarters or less was 14.3%. Findings for transfers with AA degrees were up very slightly from 1992 (16.6%), but 1993 findings for "pure" natives were down over three points from 17.5%. (See Table 6.)

Table 6: Number of Quarters Attended Western by Admit Status

	12 or less	**13 to 15**	**16 or more**
Natives without transfer credits	14.3	57.7	28.0
cumulative %	-	71.8	100.0
	6 or less	**7 to 9**	**10 or more**
Transfer with AA degrees	16.8	58.6	24.6
cumulative %	-	75.4	100.0

Also conducted was a department-level analysis of the number of quarters attended Western by the 1993 graduating class. Again, only the most useful cohorts were reported: natives without transfer credits and transfers with AA degrees. The small numbers of graduates in some departments hamper certain kinds of comparative analyses; nonetheless, it was felt that presenting the findings might be helpful. In addition to department-level findings, findings for quarters attended Western by college of graduation and by degree received are reported. Quarters attended Western by graduates earning BA/Ed, degree, especially, helps to get a picture of quarters attended by graduates planning careers in Education. (See Tables 7 through 9.)

[10] 1993 Cooperative Institutional Research Program (CIRP) findings indicated that 56.2% of entering Western freshmen indicated there was a "very good" chance that they would work an outside job during college. The national response to this question was 35.1%.

Table 7: By Major, Quarters Attended WWU by Two Admit Statuses

	Natives without transfer credit				*Transfer with AA degree*			
Major	**cases**	**mean**	**std. dev.**	**range**	**cases**	**mean**	**std. dev.**	**range**
Art	35	15.07	1.597	12:18	18	8.89	3.160	6:20
Art History	7	14.43	1.718	12:17	2	8.00	0.000	8:8
Music	9	16.00	2.739	12:21	2	9.50	2.121	8:11
Theater/Dance	6	16.00	4.940	9:24	4	7.75	1.708	6:10
Human Services	8	13.63	1.598	12:17	102	7.81	1.391	6:13
Fairhaven	7	12.43	1.134	12:15	6	9.17	1.722	7:12
Environmental Studies	22	16.27	2.865	12:22	24	7.92	1.666	6:14
Biology	25	14.80	1.323	12:18	20	8.45	1.959	5:12
Chemistry	10	15.40	2.066	14:21	6	10.67	2.503	7:14
Communications	27	14.44	1.783	12:19	32	8.94	1.933	6:16
Economics	14	15.36	1.823	12:19	11	8.82	2.639	6:14
Business Administration	1	19.00	-	-	4	9.75	2.630	6:12
Accounting	26	14.69	2.223	12:22	36	8.53	1.859	5:13
FMDS	43	14.51	1.844	12:21	56	7.95	2.276	4:16
Management	25	14.840	1.886	12:19	26	8.31	1.619	6:12
Education	18	15.44	1.318	13:18	36	9.47	1.502	7:13
English	31	14.65	2.484	11:22	54	8.65	2.586	3:13
Journalism	8	14.50	1.309	13:17	10	7.70	1.252	5:9
French	4	12.50	1.000	12:14	4	11.75	3.202	7:14
German	-	-	-	-	1	6.00	-	-
Spanish	7	13.57	1.272	12:15	4	7.50	1.732	6:10
Liberal Studies	6	13.50	1.378	12:15	11	8.91	1.300	7:11
Geography	13	14.15	1.725	12:18	5	7.00	1.000	6:8
Geology	-	-	-	-	2	11.00	0.000	11:11
Earth Science	1	18.00	-	-	1	10.00	-	-
History	27	15.44	2.621	12:23	35	8.77	1.926	6:14
Home Economics	8	14.75	1.282	12:16	12	7.08	1.165	6:9
Mathematics	8	14.25	3.012	9:18	17	8.94	2.657	4:14
Computer Science	4	15.75	3.096	13:20	8	8.25	1.832	6:12
Math-Computer Science	2	15.00	0.000	15:15	6	9.50	4.416	6:18
Philosophy	2	13.00	1.414	12:14	3	10.00	2.646	7:12
Physical Education	12	15.33	1.969	11:18	22	9.55	2.558	5:15
Recreation	22	13.59	1.260	12:17	9	8.11	2.088	6:13
Health Education	2	13.50	0.707	13:14	3	10.33	1.155	9:11
Physics	1	20.00	-	-	-	-	-	-
Political Science	26	14.65	1.896	12:22	20	7.50	1.762	5:13
Psychology	37	14.16	2.021	12:21	61	7.87	1.884	5:14
Sociology	35	13.66	1.454	12:17	37	7.41	1.589	5:11
Anthropology	11	15.36	2.618	11:20	13	8.15	1.818	6:10
Speech Pathology	4	13.25	1.500	12:15	8	6.88	0.641	6:8
Technology	12	16.92	2.712	14:21	22	11.27	2.164	8:16
General Science	1	13.00	-	-	5	11.60	1.949	9:14
Social Studies	7	15.14	1.069	14:17	4	9.50	1.915	7:11
Column Totals	**575**	**14.72**	**2.131**	**9:24**	**762**	**8.46**	**2.142**	**3:20**

Table 8: By College of Graduation, Quarters Attended WWU by Two Admit Statuses

College	*Natives w/out transfer credits*			*Transfers with AA degrees*		
	cases	**mean**	**std. dev.**	**cases**	**mean**	**std. dev.**
Arts & Sciences	349	14.56	2.079	436	8.59	2.267
Business & Economics	109	14.78	1.974	133	8.30	2.100
Woodring	26	14.89	1.657	137	8.23	1.581
Huxley	34	15.53	2.711	29	7.76	1.596
Fine & Performing Arts	49	15.03	2.356	23	8.87	3.138
Fairhaven	8	13.13	2.232	6	9.17	1.722

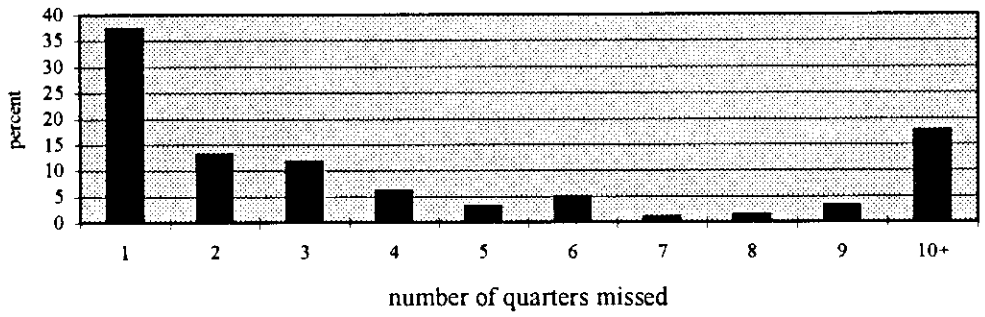
Table 9: By Degree Earned, Quarters Attended WWU by Two Admit Statuses

Degree	*Natives w/out transfer credits*			*Transfers with AA degrees*		
	cases	**mean**	**std. dev.**	**cases**	**mean**	**std. dev.**
BA	425	14.37	1.965	553	7.96	1.832
BS	89	15.56	2.316	93	9.18	2.541
BFA	1	15.00	-	2	15.00	7.071
B/Mus	8	16.50	2.449	1	8.00	-
BA/Ed	52	15.87	2.197	115	10.13	1.899

Quarters Missed/Courses Dropped and Repeated

The "quarters missed" variable was included specifically to address issues affecting graduation rates. How many graduates took time away from WWU--in current jargon, "stopped out"--and for how long? Findings indicated that 20.6% of all 1993 graduates took at least one quarter off. Of graduates who "stopped out," most missed one quarter (37.3%), but one graduate "stopped out" for 95 quarters, or nearly 24 years. (See Figure 8.)

Figure 8: Of Graduates Who Missed Quarters,
the Number of Quarters Missed



Of students who missed quarters, a mean number of quarters missed was computed to use as a comparison tool across gender, admit status, and age categories. Analyses of number of

quarters missed by gender and admit status were not statistically significant, but analysis of number of quarters missed by age category was statistically significant (.000), with a very strong Eta^2 index of .29. This, of course, would be an expected result, with younger students simply not having enough time available to stop out and still be "young" when they graduated, and with some number of older students skewing the average within their age category by stopping out, as mentioned, for up to 24 years at a time.

The variables "courses dropped" and "courses repeated" were also included to address various issues of efficiency of time to degree. The percentage of 1993 graduates who dropped at least one course was 44.4%, up from 39.8% in 1992. Of graduates who did drop courses, 62.1% dropped one course, and 23.6% dropped two courses. Yet without knowing *why* a course was dropped, the findings are open to a broad range of interpretation. Academic failure or course misplacement may explain why a course was dropped, yet so could events such as family emergencies. Certain registration practices, too, could explain courses dropped, as students jockeyed for courses at the beginning of a quarter. The new telephone registration system might have an impact on this variable, as well as the variable serving as one method of measuring the effectiveness of the touch-tone registration system.

Although over forty percent of 1993 graduates dropped a course, only 16.7% reported repeating a course. This figure was, however, up from the 1992 findings of 13.7%. Of graduates who did repeat a course, 64.9% repeated one course, and 18.4% repeated two courses. When a mean was calculated for comparison purposes, males were found more likely than females to repeat a course (1.8 males, 1.7 females), and transfers were found more likely than natives to repeat a course (1.8 transfers, 1.6 natives), but neither difference was statistically significant. When analyzed by age category, however, it was found that graduates aged 25-29 and 30-39 had the highest mean number of courses repeated (both 2.0), and that differences between age categories was statistically significant (.004), although with a weak Eta^2 index of .04.

Academic Performance at Western

The average gpa earned at Western by the 1993 graduating class was 3.11, up from the 1992 figure of 3.09. A 3.00 or better was earned by 59.0% of the graduates, also up from the 1992 figure of 56.3%. As the better-prepared frosh classes that began entering Western in the early 1990's work their way toward matriculation, this overall gpa figure may be of increasing interest. Will curricula change--i.e., become more challenging--in response and keep the average gpa at Western stable, or will it rise? Or, if reports of high school grade inflation are true, will the overall gpa just remain where it is without any attention paid to curricula? If change in curricula *were* to occur--to become more challenging--how does such change impact the meaning of a gpa earned at Western in a given year, or era? Will the 3.00 earned by a 1987 graduate mean the same thing (to an employer or graduate school, for instance) as the 3.00 earned by a 1997 graduate? In this regard, the overall gpa earned by Western graduates is worth paying close attention to.

Females earned a 3.17 Western gpa, and males a 3.01. Both figures were slightly up from 1992 findings of 3.16 and 2.99 respectively. The difference between gpa's earned by females and

males was statistically significant (.000), but with a weak Eta^2 index of .03. Native students earned a 3.01 Western gpa, and transfers a 3.18. Again, both figures were slightly up from 1992 findings of 2.99 and 3.16 respectively. The difference between gpa's earned by native and transfers was statistically significant (.000), but again with a weak Eta^2 index of .04. Graduates with veteran status earned a 3.11; graduates with disabilities earned a 3.00.

As was found in the 1992 report on Western graduates, the average gpa's found in certain majors were considerably higher than the average gpa's found in other majors--as well as considerably higher than the overall Western gpa of 3.11. Differences in gpa's across all majors were found to be statistically significant (.000); moreover, the Eta^2 effect was substantial at .18. Not counting those majors who had fewer than 15 graduates, the highest gpa's were found for graduates in Human Services (3.62), Education (3.46), Music (3.44), and Liberal Studies (3.30). Human Services and Education also had the highest average gpa's in 1992, and were, in 1993, the only repeat majors with average gpa's over 3.40. (See Table 10.)

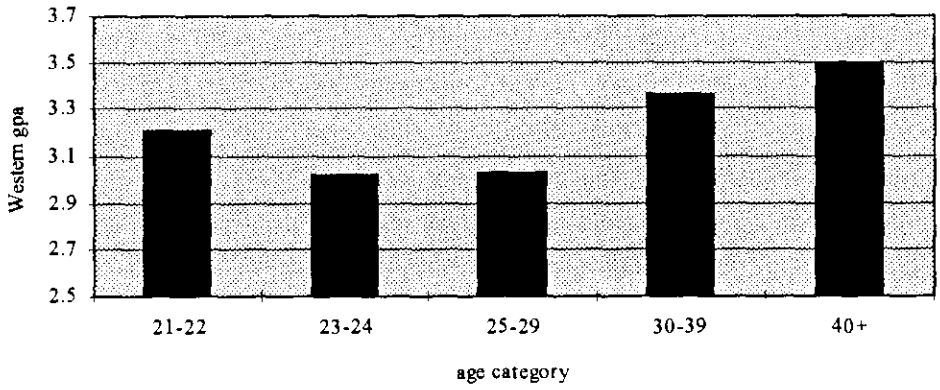
Table 10: Western GPA in Major

Major	gpa	cases	std. dev.	Major	gpa	cases	std. dev.
Art	3.07	95	.3163	Geography	3.09	29	.3833
Art History	2.97	16	.3685	Geology	2.87	12	.3623
Music	3.44	18	.2829	Earth Science	3.48	4	.3764
Theater/Dance	3.11	19	.3687	History	3.07	92	.4075
Human Services	3.62	127	.3297	Home Economics	3.01	42	.3582
Fairhaven	3.18	69	.4988	Mathematics	3.19	40	.3845
Environmental Studies	3.10	100	.4081	Computer Science	2.97	20	.4759
Biology	3.05	80	.3857	Math-Computer Science	3.24	10	.4674
Chemistry	3.18	24	.4154	Philosophy	3.42	6	.4261
Communications	2.94	89	.3273	Physical Education	3.09	56	.3147
Economics	2.96	35	.4907	Recreation	2.88	55	.4079
Business Administration	3.10	7	.5868	Health Education	3.09	16	.4319
Accounting	3.08	95	.4100	Physics	3.19	5	.3309
FMDS	2.96	166	.3984	Political Science	2.88	76	.4717
Management	2.95	80	.3875	Psychology	3.10	144	.3879
Education	3.46	86	.2971	Sociology	2.96	103	.4699
English	3.17	136	.4085	Anthropology	3.15	40	.4449
Journalism	2.93	26	.4384	Speech Pathology	3.27	20	.3341
French	3.38	11	.4978	Technology	2.90	60	.3814
German	3.33	3	.5908	General Science	3.30	9	.2360
Spanish	3.12	20	.3325	Social Studies	3.24	18	.2984
Liberal Studies	3.30	29	.4027	**All Column Totals**	**3.11**	**2189**	**.3947**

It was suspected that the age of graduates had something to do with the high gpa's found in Human Services and Education, since they graduate many older students and older students overall have been found to have higher Western gpa's than their younger counterparts. In fact, for 1993 findings, graduates in the age categories 30-39 and 40+ did indeed out-perform younger

graduates. The differences between gpa's by age categories was statistically significant (.000), and with a modest to strong Eta^2 effect of .12. (See Figure 8.)

Figure 8: Western GPA by Age Category



However, further analyses of Western gpa also indicated that for graduates *aged 30 and over* who *did not* major in either Human Services or Education, their gpa was 3.28, while for graduates *aged 30 and over* who *did* major in either Human Services or Education, their gpa was 3.68. Furthermore, for graduates *less than 30* years of age who *did not* major in Human Services or Education, their gpa was 3.03, while for graduates *less than 30* years of age who *did* major in either Human Services or Education, their gpa was 3.40.

Moreover, while the differences between the gpa's of students less than 30 years old and those aged 30 and over were statistically significant regardless of major (in both cases sig = .000), the Eta^2 effect for non-Human Services or Education majors was weak, at .04, while for those majoring in Human Services or Education the Eta^2 was quite strong, at .18.

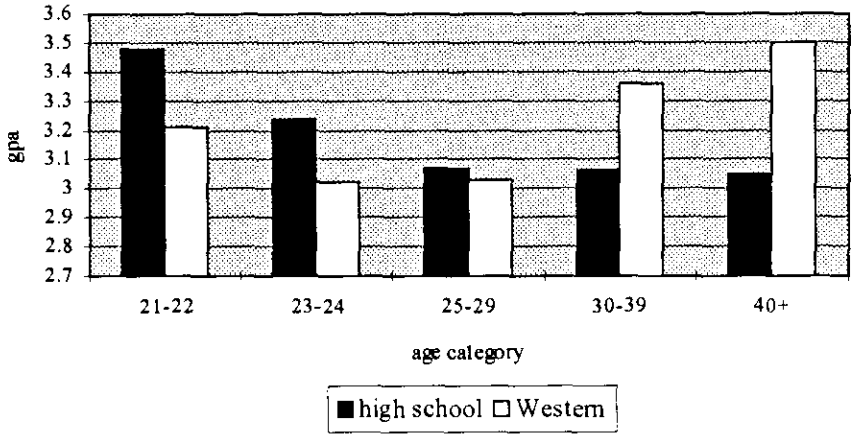
Interpretation of these statistics indicates that regardless of age, a student majoring in Human Services or Education will have an average Western gpa that is higher than the average gpa for Western graduates overall. Also, for graduates *not* majoring in Human Services or Education, differences in gpa between ages are evident, but they do not account for much of the variation between gpa's--those differences could very well be explained for other reasons than age. On the other hand, for graduates who *are* majoring in Human Services or Education, much more of the variance in gpa's can be explained by age. In other words, while older students generally are somewhat more likely to earn higher gpa's than their younger counterparts, older students majoring in Human Services or Education are much more likely to earn better gpa's than their younger counterparts. (See Table 11.)

Table 11: GPA Comparison by Age Category of Human Services/Education Majors and all other Majors

	Human Services or Education Majors		*All other Majors*	
	Less than 30	**30 or over**	**less than 30**	**30 or over**
gpa	3.40	3.68	3.03	3.28
cases	98	115	1762	219
sig	.000		.000	
Eta^2	.18		.04	

One finding rendered almost systematic in recent years has been that while older graduates have had the lowest average high school gpa's, they have had also the highest average Western gpa's, and 1993 findings were no exception. The differences between both high school and Western gpa's by age category were statistically significant (.000), as well as having modest to strong Eta^2 effects (high school gpa = .11; Western gpa = .12). (See Figure 9.)

Figure 9: High School and Western GPA by Age Category



Honors were earned by 146 (6.6%) of the 1993 graduates (down from 8.1% of 1992 graduates), with 102 earning Cum Laude honors and 44 earning Magna Cum Laude honors. Females were more likely than males to earn honors. Of all honors bestowed, 69.9% were earned by females and 30.1% male. These figures might best be compared to the total percentage of females and males graduating from Western in 1993, which was 58.7% females and 41.3% males. Recalling that females enter Western with higher high school gpa's than males, and also earn higher Western gpa's than males, and that both findings were statistically significant (even though the Eta^2 indexes were weak), may shed a statistical light on why females earn honors disproportionately higher to their overall representation at Western.

Likewise, transfers were more likely than natives to earn honors. Of the 146 graduates earning honors, 67.1% were transfers and 30.1% natives. These figures, too, might best be compared to the total percentage of transfers and natives graduating from Western in 1992, which was 54.3% transfers, and 44.2% natives. Yet neither transfer gpa, incomparable to any other graduate variable, nor high school gpa, which was infrequently part of transfers' data, could be utilized to explain this difference. The following speculation, however, is offered: By the nature of the honors accounting system, any low grades transfers may have had while in community colleges or elsewhere are not utilized. If, between their previous school and Western, transfers matured academically, learned how study, etc., they may have benefited by such an accounting system. On the other hand, natives have all of their Western academic scores, lower and upper division, included in the honors formula. If they haven't "found themselves" academically early on, it could be that early grades hold them back from having higher Western gpa's."

For 1992, only three graduates were required to pass the Junior Writing Exam (JWE).[12] For 1993, substantially more graduates were required to pass the JWE (259) although they still only made up 11.8% of the entire population of graduates. Nonetheless, the higher number may partially explain why the percentage of 1993 graduates passing the written section of the JWE increased from 56.7% in 1992 to 63.4% in 1993. Moreover, the percentage of graduates passing the objective section of the PATE increased from 83.6% in 1992 to 87.4% in 1993.

Females were more likely than males to pass either section of the JWE. For the essay section, 68.1% of females vs. 41.5% of males passed; for the objective, 92.9% of females vs. 79.6% of males passed. The differences between percentages was statistically significant in both cases (essay and objective = .000)

Transfers were more likely than natives to pass the essay section of the JWE (66.6% of transfers vs. 59.3% of natives passed, statistically significant at .002), but no more likely to pass the objective section of the JWE (87.5% of transfers vs. 86.9% of natives passed, not statistically significant).

Higher percentages of the youngest and oldest graduates were found to have passed both section of TWE than graduates in the middle age categories. Findings were statistically significant at .000 in each case. (See Table 12.)

[11] Findings by age category were not statistically significant.

[12] Outside of a few departmental exceptions, no student entering WWU prior to the Fall of 1991 (student numbers beginning 914) was required to *pass* the Junior Writing Exam, only to *take* it.

Table 12: JWE Outcomes by Age Categories (Column = 100%)

	Overall	21-22	23-24	25-29	30-39	40+
JWE Objective						
Unsatisfactory	**12.6**	5.3	13.0	18.4	11.3	7.5
Satisfactory	**87.4**	94.7	87.0	81.6	88.7	92.5
JWE Essay						
Unsatisfactory	**36.6**	29.1	41.4	39.0	26.8	18.5
Satisfactory	**63.4**	70.9	58.6	61.0	73.2	81.5

Degrees Granted

The 1993 graduating class overwhelmingly earned Bachelor of Arts degrees, 71.6%, although this figure was down from the 1992 findings of 74.1%. The least earned degree was Bachelor of Fine Arts, earned by five graduates, up from one graduate in 1992. (See Table 13.)

Table 13: Degrees Earned by 1993 Graduates

	cases	percent	percent in 1992
BA	1574	71.6	74.1
BS	338	15.4	14.2
BA/Ed.	266	12.1	11.2
B/Mus	14	0.6	0.4
BFA	5	0.2	0.1

Females were more likely to earn BA degrees and BA/Ed degrees than males (BA = 60.9% females vs. 39.1% males; BA/Ed = 75.9% females vs. 24.1% males), while males were more likely to earn BS degrees (BS = 34.9% females vs. 65.1% males). Differences in percentages of degrees earned were statistically significant at .000. Although transfers were more likely to earn BA/Ed degrees than natives (63.2% transfers vs. 36.1% natives), there were no differences by admit status that were statistically significant.

When compared to the representation of their age group within the overall population of graduates, the youngest graduates were found most likely to earn BA degrees, less likely to earn BS degrees, and very unlikely to earn BA/Ed degrees. Graduates aged 25 through 39 years old were more likely to earn BA/Ed and BS degrees, and less likely to earn BA degrees. Older graduates were more likely to earn BA and BA/Ed degrees, but very unlikely to earn BS degrees. The differences were found to be statistically significant at .000. (See Table 14.)

Table 14: Degree Earned by Age Category (Column = 100%)[13]

	Overall	21-22	23-24	25-29	30-39	40+
BA	**71.6**	88.8	73.1	60.0	60.2	80.3
BS	**15.4**	8.4	14.5	22.9	18.9	5.8
BA/Ed	**12.1**	2.5	11.5	16.2	19.9	11.7

Profile of Education Graduates

Because of Western's history as a "Teacher's College" and its continuing commitment to a strong program in teacher training, a profile of graduates earning a BA/Ed degree is included in this report. Although this procedure may not include *all* graduates who appear to be entering the teaching field--some graduates take full academic degrees (BA or BS) plus a teaching endorsement and thus slip through the statistical cracks--it probably does encompass most of them.

The findings indicated that the majority of Education graduates continue to be, as they have been in the past, Washington residents (97.7%), white, non-Hispanic (95.6%), female (75.9%), and transfers (63.2%). The most frequently earned academic degree for Education majors was English (12.8%), followed by History (12.0%), Physical Education (10.2%), and Social Studies (6.8%). Honors were earned by 16 (or 6.0%) of 1993 graduates in Education. And while all graduates were found in all age categories, the most frequent age at graduation was 23-24 years old (47.4%).

Profile of Graduates Who Participated in Varsity Athletics

Because of WWU's commitment to a strong scholar/athlete program, and because over 500 students a year participate in varsity athletics, a profile of graduates who had participated in varsity athletics has also been included in this report. This is a relatively new item for the OIAT's annual graduate report (begun in 1992), and is made possible by the inclusion of athlete status in the Registrar's Office data files.

In 1992, there were 100 graduates who had participated in varsity athletics. Most were Washington residents (94.0%) and between 23-24 years old (66.0%). White, non-Hispanics made up 87.6% of graduates who participated in varsity athletics, while ethnic-minorities made up 12.4% of graduates who participated in varsity athletes. Most athlete-graduates were natives (77.0%) and most were male (64.0%). A slight majority graduated from the College of Arts & Sciences (56.0%), but varsity athletes also graduated from the College of Business & Economics (30.0%) as well as the College of Fine & Performing Arts (3.0.6%), Huxley (5.0%), Fairhaven (3.0%) and Woodring (3.0%). Like the rest of the 1993 graduating class, a majority of athlete-graduates earned Bachelor of Arts degrees (72.0%), although athlete-graduates also earned Bachelor of Science degrees (13.0%), as well as Bachelor of Arts, Education degrees (15.0%).

[13] Because the number of cases was so small, findings for BFA (5) and BA/Mus (14) were not presented.

Graduates who participated in varsity athletics earned degrees in 28 of the 47 departments offering degrees at WWU. The most frequently earned degree for student/athletes at Western was FMDS (12.0%), followed by Physical Education (9.0%), Management (8.0%), Psychology (7.0%), and Biology and Accounting (6.0% each).

The sports in which the most athletes/graduates participated were crew (24.0%) and football (24.0%), followed by track (16.0%) and soccer (12.0%). Crew, track, and volleyball graduated the most females; football, crew, and track graduated the most males. (See Table 15.)

Table 15: Varsity Athletics Participation by Gender
(Row = 100%)

	male		females	
	cases	%	cases	%
Overall	**64**	**64.0**	**36**	**36.0**
basketball	1	33.6	2	66.7
crew	12	50.0	12	50.0
football	24	100.0	-	-
golf	3	100.0	-	-
fast pitch	-	-	2	100.0
tennis/racket	4	80.0	1	20.0
soccer	7	58.3	5	41.7
track	9	56.3	7	43.8
volleyball	-	-	6	100.0
cross-country	4	80.0	1	20.0

Discussion

Analysis by statistical correlation was performed on selected variables. High school gpa indicated a moderate to strong positive correlation to Western gpa ($r = .503$, sig. = .000, cases = 1142). In other words, it would be fairly likely to find that the higher the high school gpa, the higher the Western gpa. Also, SAT-verbal, SAT-math, and WPCT-verbal scores all indicated a moderate positive correlation to Western gpa (SAT-V: $r = .443$, sig. = .000, cases = 340; SAT-M: $r = 425$, sig. = .000, cases = 340; WPCT-V: $r = .426$, sig. = .000, cases = 1068). Correlations for the preceding variables would apply mostly to native graduates, since, for the most part, transfers do not need to supply these scores in order to be admitted to Western.

Yet transfer gpa, too, indicated a moderate to strong positive correlation to Western gpa ($r = .513$, sig. = .000, cases = 1250), and this figure would, for the most part, apply only to transfer students (although there would be some number of natives with a transfer gpa in their records, as many natives do take credits at outside institutions). In any regard, this finding would indicate that it would be fairly likely to find that the higher the transfer gpa, the higher the Western gpa.

Multiple regression analysis on selected variables was also performed. This test helps to indicate which of a number of variables can help predict what the score on a dependent variable (in this case Western gpa) might be. It was most feasible to perform this test on native graduates who had no transfer gpa in their records (the so-called "pure natives"), since they were the only cohort which could be counted on to have provided more than a single variable, and whose records were not tainted, statistically, by the troublesome juxtaposition of being a 'native' graduate with transfer credits and gpa. For pure natives, the analysis indicated an R^2 finding of .272 for high school gpa as an independent variable affecting the dependent variable Western gpa; in other words, high school gpa alone explained 27.2% of the variance. High school gpa combined with WPCT-verbal score indicated an R^2 of .347; in other words, the two independent variables together explain 34.7% of the variance. If, then, one wanted to utilize scores that might predict how well a student might perform at Western, using Western gpa as a yardstick, they would best be served by looking at high school gpa and WPCT-verbal score.

Although more similar to the profile of 1992 graduates than different from it, there were *slight* variations in trends found in the 1993 profile. They included:

- The number of students matriculating was up from 2073 in 1992 to 2198 in 1993.

- The percentage of native graduates--those who began their education at Western as first-time freshmen--was down (from 45.6% in 1992 to 44.2% in 1993), while the percentage of transfer graduates rose (from 51.6% in 1992, to 54.3% in 1993).

- Average high school gpa's, for those graduates who had them included in their records (mostly natives), were higher for 1993 graduates than for 1992 graduates (3.26 in 1993; 3.22 in 1992).

- Because the Washington Pre-College Test has been discontinued, it was less often the pre-college test score included in graduates' record. Nonetheless, for 1993 graduates, the WPCT was still reported considerably more often than SAT scores. This finding should see more radical change in the next couple of years as the student pool with WPCT scores matriculates and is replaced by students who have only the SAT.

- Fewer 1993 graduates matriculated from the College of Arts & Sciences and from the College of Business & Economics than in 1992. The slack was picked up in the four other colleges, including a considerable jump in the percentage of Huxley College graduates (5.8% in 1993, up from 2.8% in 1993).

- Fewer 1993 graduates earn BA degrees than 1992 graduates (71.6% in 1993 vs. 74.1% in 1993). The slack was spread relatively evenly throughout the other degree areas (BS, BA/Ed., BFA, and B/Mus.), which all indicated modest increases.

- More 1993 graduates reported repeating a course than 1992 graduates (16.7% in 1993 vs. 13.7% in 1992).

- More 1993 graduates passed the JWE than 1992 graduates (essay: 63.4% in 1993 vs. 56.7% in 1992; objective: 87.4% in 1993 vs. 83.6% in 1992). As more graduates with student number higher than 904 begin to matriculate, these figures should begin to increase.

- The average gpa earned at Western by the 1993 graduating class was 3.11, up from the 1992 figure of 3.09; yet fewer 1993 graduates earned honors than 1992 graduates (6.6% in 1993 vs. 8.1% in 1992).

- Fewer student/athletes graduated in 1993 than in 1992 (100 in 1993 vs. 111 in 1992).

As it was in the 1992 graduate report, a brief analysis was done regarding the percentage of ethnic-minority graduates. Including all graduates, whether they reported ethnicity or not, ethnic-minorities made up 7.0% of 1993 graduates, a figure up from 6.1% in 1992. To put a perspective on what that figure means, the enrollment report from the Fall of 1989 was referenced. All other considerations being equal--the percentage of transfers, the number of quarters needed to graduate, etc.--it was felt that figures from that report would give some approximation of ethnic graduation rates. And, indeed, in the Fall of 1989 ethnic-minorities comprised approximately 7% of the overall population of Western students. Although only tracked for two years, there appears to be a trend that ethnic-minority students are graduating in the same relative proportion that they are entering Western as frosh.

Data collected on 1993 graduates also included information on a fairly good-sized cohort (152) who had taken the CIRP frosh survey in 1989." For purposes of easy identification, this report will refer to this cohort as "CIRP natives," and should be a group whose demographics are of particular interest to the growing numbers of those in higher education concerned with issues of time to degree. First and foremost, the "CIRP natives" were, indeed, natives--i.e., each and every one began their academic career at Western as a freshman. Moreover, nearly all (150) were "pure natives"--all except two took the entirety of their college credits at Western. For nearly all, from frosh to graduate, no other official college credits exist in these students' records.

Probably most importantly, however, these graduates all matriculated within four years. They began in the fall quarter of 1989 and were graduated by the time the statistical books were closed at the end of summer quarter, 1993. Although not quite perfect in terms of quarters attended, the average number quarters needed for this cohort to matriculate was considerably lower than the average number of quarters needed for the entire population of pure natives (12.4 versus 14.7). Even though quite a few needed at least one extra quarter, the rapidity with which this cohort made it through college--by current standards--was nevertheless impressive: 59.9%

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[14] CIRP is the acronym for Cooperative Institutional Research Program, administered by the Higher Education Research Institute, a part of the Graduate School of Education at the University of California, Los Angeles. Their Student Information Survey has been administered periodically to in-coming Western frosh since 1971. The CIRP profiles characteristics, attitudes, values, educational achievements, and future goals.

needed 12 quarters or less, and 34.2% needed only one additional quarter. Indeed, these figures compare very favorably to "pure natives" overall. (See Table 16.)

Table 16: Number of Quarters Attended Western by "Pure Native" and "CIRP Natives"

	12 or less	13 to 15	16 or more
"Pure Natives"	14.3	57.7	28.0
cumulative %	-	71.8	100.0
"CIRP Natives"	59.9	40.2	n/a
cumulative %	-	100.0	n/a

A general description of this cohort includes the finding that they were primarily females (75.0% versus 58.7% of the general population) and primarily white, non-Hispanic (90.8% of those indicating ethnicity versus 85.1% of the general population). Additionally, "CIRP natives" had better high school gpa's than the general population of graduates (3.54 versus 3.27), as well as had a better Western gpa (3.26 versus 3.11). At graduation, "CIRP natives" had fewer total college credits than the general population (185 versus 202). Furthermore, "CIRP natives" were less likely to repeat or drop courses, had slightly higher pre-college test scores, and were slightly more likely to pass either section of the Junior Writing Exam. In other words, when discussing efficiency of time to degree, "CIRP natives" are about as ideal a group to study as one could wish for. Not only did they get through fast, they performed well.

So are there figures that might draw a clearer picture of who these students are and what skills or attitudes they may possess that might instruct time-to-degree studies? There are a few and while of humble importance individually, collectively may be of some interest. Item one is that the parents of "CIRP natives" were slightly more likely to have been alumni of Western than the parents of the general population (11.2% versus 8.2%). The parents of "CIRP natives" were also very likely to have attended college, if not actually to have graduated, with 78.9% of fathers and 78.1% if mothers reported as having at least "some college". These figures are not statistically higher than those for parents of 1989 frosh who took the CIRP but did not graduate, but do add to some understanding of who these "CIRP natives" are.

Item two is that "CIRP natives" themselves were much more likely to have attended Summer Orientation than either the general population or "pure natives" ("CIRP natives" = 92.8%; "pure natives" = 79.5%; and general population = 33.8%). That so many "CIRP natives" participated in Summer Orientation is no surprise because it is at Summer Orientation that the CIRP survey is administered. Yet that fact should not dampen the possibility that participation in Summer Orientation may have a very positive effect on how quickly students are able to matriculate since careful planning and preparation, combined with timely advising, besides having a ring of common sense to them, have all been shown to be direct or indirect influencing factors in time-to-degree efficiency.[15]

[15] Simpson, C. and Trimble, J.E. *Factors that Influence Graduation Rates and Time to Graduation at Western Washington University*. Materials prepared for a meeting sponsored by the Higher Education Coordinating Board concerning state-wide graduation rates and time to degree. Olympia, WA; October, 1993.

Item three is that "CIRP natives" graduated with BA degrees at a much higher percentage than did the general population (90.8% versus 71.6%). This item is an important one to note since it has also been found that taking a BS degree can slow, somewhat, the efficiency of time to degree.[16]

Items four and five come from the CIRP findings themselves. When compared to the cohort of 1989 CIRP respondents who *did not* graduate in 1993, two factors were found be statistically significant. Item four reveals that, generally, while in high school, "CIRP natives" spent more time studying. This finding was significant at .05. (See Table 17.)

Table 17: Percentage of 1989 CIRP Survey Respondents Indicating Hours Per Week Spent Studying in the Year Prior to Entering Western

	0 to 5 hrs	6 to 15 hrs	16 hrs plus
"CIRP natives"	47.3	42.0	10.7
non-graduating CIRP respondents	53.5	41.0	5.5

Item five reveals that "CIRP natives" were more likely to have reported that they would "be satisfied with (their) college." This finding was significant at .04. (See Table 18.)

Table 18: Percentage of 1989 CIRP Survey Respondents Indicating They would "be satisfied with (their) college"

	no or some chance	very good chance
"CIRP natives"	34.2	65.8
non-graduating CIRP respondents	43.1	56.9

The picture brought to life by this accumulation of figures seems to be of a student with study habits learned prior to attending college that are relatively better than that of their peers, who may have been somewhat more careful in their planning and preparations for college, who have an apparently more up-beat attitude about attending college (and Western specifically), who are somewhat better prepared in terms of academic accomplishments while in high school than their counterparts, who are much less likely to enter a BS degree program and thus avoid the inevitable extra time needed to earn such a degree,[17] and whose parent's have a background that includes exposure to, if not actual success at a college career themselves.

What is not indicated by this profile is what direct action can be taken to improve the chances for students who do not fit the profile. Yet maybe by default, through understanding the make-up of those graduates obviously successful at getting through college in a timely fashion, programs may be developed and/or implemented that might promote the skills and attitudes that "successful" students apparently already possess.

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[16] Ibid, footnote 14.

[17] This report is not in any way, shape or form, however, advocating that in order to get through college in a timely fashion that students avoid earning a BS degree. It is simply a statement of fact that earning a BS degree can potentially effect the 'efficiency' of time-to-degree.

Appendix A:

Ethnicity Report

1993 Western Washington University Graduates: Ethnicity Report

Ethnicity

			Admit Status*			
			Native		Transfer	
	N	%	N	% Ethnic pop.	N	% Ethnic pop.
Black	31	1.4	17	54.8	14	45.2
American Indian/AK Native	29	1.3	4	13.8	25	86.2
White, non-Hispanic	1869	85.1	857	45.8	993	53.1
Hispanic	29	1.3	12	41.4	17	58.6
Asian/Pacific Islander	65	3.0	35	53.8	29	44.6
International	22	1.0	1	4.5	17	77.3
Did not respond	152	6.9	-	-	-	-

*Does not include 'special admit' status, which accounted for 1.2% of the overall population.

GPA's

	High School		Transfer		WWU	
	N	GPA	N	GPA	N	GPA
Black	22	2.86	14	2.89	31	2.87
American Indian/AK Native	5	3.34	25	2.86	29	3.02
White, non-Hispanic	1006	3.27	1041	3.08	1866	3.11
Hispanic	16	2.98	17	3.06	29	3.11
Asian/Pacific Islander	38	3.31	36	3.06	65	3.08
International	2	3.10	18	3.08	22	3.13

Pre-college Test Scores

	WPCT			SAT		
	N	Verbal	Math	N	Verbal	Math
Black	14	46.4	48.4	6	328	377
American Indian/AK Native	10	55.1	52.6	1	630	620
White, non-Hispanic	947	51.9	53.7	294	464	505
Hispanic	11	49.6	52.1	8	460	520
Asian/Pacific Islander	34	48.1	52.7	13	431	510
International	-	-	-	1	490	520

University demographics

	Quarters missed		Courses dropped		Courses repeated	
	N	Mean	N	Mean	N	Mean
Black	5	12.8	13	1.2	4	1.3
American Indian/AK Native	3	8.0	14	1.6	6	1.8
White, non-Hispanic	369	6.2	832	1.6	285	1.7
Hispanic	7	8.3	11	1.7	4	1.5
Asian/Pacific Islander	15	3.7	26	1.8	18	2.0
International	7	5.9	8	2.5	6	2.2

University demographics (cont.)

	Quarters at Western		Total credits earned		JWE Obj.	JWE Essay
	N	Mean	N	Mean	% passed	% passed
Black	30	11.3	31	197.7	74.2	38.7
American Indian/AK Native	29	9.4	29	200.9	82.1	46.4
White, non-Hispanic	1864	11.4	1870	201.7	87.7	64.0
Hispanic	29	10.6	29	199.4	86.2	72.4
Asian/Pacific Islander	65	11.9	65	199.3	82.8	59.4
International	22	8.5	22	194.2	95.2	33.3

Degree earned

	BA		BS		BA/Ed	
	N	% Ethnic pop.	N	% Ethnic pop.	N	% Ethnic pop.
Black	28	90.3	1	3.2	2	6.5
American Indian/AK Native	21	72.4	6	20.7	2	6.9
White, non-Hispanic	1326	70.9	287	15.3	240	12.8
Hispanic	25	86.2	2	6.9	2	6.9
Asian/Pacific Islander	49	75.4	11	16.9	5	7.7
International	21	95.5	1	4.5	-	-
	BFA		**BM**		**BSN**	
	N	% Ethnic pop.	N	% Ethnic pop.	N	% Ethnic pop.
Black	-	-	-	-	-	-
American Indian/AK Native	-	-	-	-	-	-
White, non-Hispanic	4	0.2	12	0.6	1	0.1
Hispanic	-	-	-	-	-	-
Asian/Pacific Islander	-	-	-	-	-	-
International	-	-	-	-	-	-

College of graduation

	F&PA		B&E		Fairhaven	
	N	% Ethnic pop.	N	% Ethnic pop.	N	% Ethnic pop.
Black	3	9.7	2	6.5	8	25.8
American Indian/AK Native	1	3.4	-	-	1	3.4
White, non-Hispanic	103	5.5	333	17.8	53	2.8
Hispanic	-	-	1	3.4	3	10.3
Asian/Pacific Islander	3	4.6	21	32.3	3	4.6
International	3	13.6	4	18.2	3	13.6
	Woodring		**Huxley**		**A&S**	
	N	% Ethnic pop.	N	% Ethnic pop.	N	% Ethnic pop.
Black	2	6.5	-	-	16	51.6
American Indian/AK Native	5	17.2	3	10.3	19	65.5
White, non-Hispanic	174	9.3	106	5.7	1101	58.9
Hispanic	5	17.2	1	3.4	19	65.5
Asian/Pacific Islander	8	12.3	4	6.2	26	40.0
International	-	-	-	-	12	54.5

Honors at graduation

	Cum Laude		Magna	
	N	% Ethnic pop.	N	% Ethnic pop.
Black	-	-	-	-
American Indian/AK Native	-	-	-	-
White, non-Hispanic	90	70.3	38	29.7
Hispanic	1	100.0	-	-
Asian/Pacific Islander	3	60.0	2	40.0
International	2	100.0	-	-

Appendix B:

Selected Variables from
Student Tracking System

ID	Permanent ID number	ALUMNI	Parent(s) alumni
AGE	Graduates' age in 1991	NUMQTRS	Quarters at WWU
AGECAT	Age categories	MISSQTR	# of quarters missed
SEX	Gender	REPTCRS	# of courses repeated
ETHNIC	Ethnic origin	DROPCRS	# of courses dropped
ADMIT	Admission type	JWEOBJ	JWE objective grade (S/U)
DISABLE	Disability	JWEOBJSC	JWE objective score
VETERAN	Verteran/non-veteran	JWEESSAY	JWE Essay grade (P/F)
STATE	Washington resident; Out-of-state resident; International	WPCTV	WPCT-Verbal score
		WPCTQ	WPCT-Quantitative score
HSGPA	High school grade point average	WPCTCOMP	WPCT-Composite score
HSYR	High school year	SATV	SAT-Verbal score
ORIENT	Summer Orientation participant	SATM	SAT-Quantitative score
TRSFGPA	Transfer credits grade point average	SATCOMP	SAT-Composite score
TRSFDEGR	Transfer degree	ATHLETE	Varsity athletic participation
TRSFCRED	Transfer credits	SPORT1	basketball; crew; football; golf; tennis; soccer; track volleyball; cross-country
WWUGPA	WWU grade point average		
WWUCRED	Undergraduate WWU credits		
DEPT	Department of major at graduation	SPORT2	basketball; crew; football; golf; tennis; soccer; track volleyball; cross-country
TOTCRED	Total credits at graduation		
ADMITQTR	Quarter of admission		
DEGREE	Degree granted in 1991-92	SUBCOLLG	Graduation sub-college
DEGREE2	Second degree granted	HONORS	Honors at graduation
DEGQTR	Quarter degree granted		