# SPOTLIGHT ON OU

**NSSE Data Suggests Mixed Relationship between First Year**

**Retention Rates and the Number of Hours that Students Work**

This brief report examines the relationship between student retention, credits earned, and the number of hours students work, paying particular attention to the group of freshmen students that work 30 or more hours per week.

In 2007 and 2009 the National Survey of Student Engagement (NSSE) was administered to freshman and seniors on the OU campus. A large number of those students were classified as FTIACs (first time in any college). By linking NSSE data and institutional data it is possible to analyze how behavioral student characteristics correlate with measures of academic performance.

NSSE asks students a large number of questions, among them is how many hours they work off-campus. It is well known that some OU students work many hours. Indeed, NSSE data shows that OU students work more hours than both our peer group comparison and national norms. However, OU has little institutional data about how these working hours relate to student performance.

Table 1 summarizes student retention rates (between the $2^{nd}$ and $3^{rd}$ semesters), the percentage of students returning with sophomore status (between the $2^{nd}$ and $3^{rd}$ semesters), and the average number of first term credits students attempt by the number of hours that students report working based on their NSSE results. While this only represents a subset of the total student population, participation in the NSSE survey is relatively high, capturing approximately 30% of the FTIAC cohorts.

*Table 1: Various Performance Metrics by Off Campus Hours Worked per Week (2006 & 2008 FTIACS)*

| Hours Worked per Week | Zero | 1-5 | 6-10 | 11-15 | 16-20 | 21-25 | 26-30 | 31+ | Totals |
|---|---|---|---|---|---|---|---|---|---|
| Retention Rate | 86% | 91% | 87% | 84% | 86% | 85% | 82% | 86% | 86% |
| Return as a Sophomore | 63% | 76% | 68% | 69% | 67% | 62% | 55% | 53% | 65% |
| Ave. 1st Term Credits | 14.7 | 14.7 | 14.5 | 14.6 | 14.2 | 14.1 | 14.3 | 13.5 | 14.4 |
| N | 410 | 87 | 100 | 150 | 176 | 123 | 78 | 57 | 1181 |

As Table 1 shows, there is little difference in retention rates based upon the number of hours students are working. In fact, students that are working more than 31 hours a week have the same retention rate as students who do not report working at all.

However, slightly different patterns emerge when one examines the percentage of students that return with sophomore status. Table 1 suggests that working many hours decreases the chance that a student will return with sophomore status[1], though this pattern only seems to emerge for students working more than 25 hours.

If students working many hours obtain fewer credits, is it because they are taking fewer credits, or because they are failing more courses?

A cursory analysis of student GPAs did not show any significant differences among students based on their working hours. However, an analysis of student credits attempted did[2]. As Table 1 shows, the number of credit hours that students attempt in their first semester appears to be related to the number of hours they report working. Gradually, average student credit hours attempted drops as the number of reported working hours increase. At more than 30 hours, however, the average student credit hours drop sharply.

Obviously, the number of credits students take per semester is strongly related to the speed at which they graduate. Additionally, previous OIRA investigations (Duby and Schartman, 1996) have suggested that it is also related to overall graduation rates, reasoning that students who have shorter routes to graduation are simply more likely to graduate than those who have longer routes.

However, it should be noted that, while there is a drop in the percentage of those returning with sophomore status for students that work more than 25 hours, there is no noticeable drop for students working anything less than 25 hours, at least when compared to students that are not working. This is good news, since the vast majority of OU FTIACs seem to fit into this category.

While straight forward retention data is an important indicator of the health of a student body, it clearly does not tell the entire story. Augmenting classical retention data with alternative metrics, such as the percentage of students who return with sophomore status, may prove to be more beneficial when analyzing student behavior or thinking about how policy might best influence student outcomes.

References

Duby, P., Schartman, L. (1996, October). *An Analysis of the Relationship between Credit Hour Loads at College Onset and Subsequent Academic Performance: A Multi-Institution Pilot Project*. Paper Presented at the Michigan Association for Institutional Research, Cadillac, MI.

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[1] Traditional inferential statistical analysis using a chi-square test reveals that the distribution of students returning with sophomore status is unlikely to be random: $\chi^2(7) = 14.7$, $p < 0.05$.

[2] Traditional inferential statistical analysis using an ANOVA showed a main effect for average first term credit hours by the number of hours worked: $F(7, 1173) = 3.48$, $p < 0.001$.