An Important New Factor in Retention: Class on Friday

**Abstract**

Many schools have few classes on Friday and as a consequence hurt their retention and graduation rates. This study argues that the retention literature is consistent with these effects and presents a striking set of regressions that show that the proportion of courses that meet on Friday has a highly significant effect of on these rates. The regressions include powerful controls for the ability of students, acceptance rates and SAT’s. Most schools in the northeastern US have these data available and are in the study, making a solid case for schools to either return a five day class week or at least take this factor into account when counseling troubled students.

**Introduction**

Over the decades retention theory has developed in a variety of ways that have improved retention, while challenges continue to grow and change within structural and cultural aspects of higher education. One such challenge is the decline of class offerings on Fridays. Slowly over time class on Friday has been disappearing in varying degrees at most schools. This paper will show first how the existing literature can be interpreted to support the idea that class on Friday supports higher retention. Having established that class on Friday may improve retention, the paper will provide striking evidence that retention is substantially affected by class on Friday. Although class on Friday may not be a popular choice among the community, schools that continue to have many classes on Friday have higher retention as the reward. In this day of declining demographics in higher education, additional Friday class offerings may improve budgets, student satisfaction and overall success.

**The Literature**

Formal modeling in the retention literature is well described by Vincent Tinto (Tinto, 1993). His longitudinal model at the institutional experiences level stresses the importance of the academic system and faculty/staff interactions (Tinto, 1993, p. 114). The idea is that if a student is interested and successful in his/her courses, then retention may be positively impacted. Likewise, a positive and substantial interaction with a faculty member may also contribute to higher levels of retention and overall connection to the community; this concept is demonstrated more recently in Komarraju and colleagues (Komarraju, Musulkin & Bhattacharya, 2010). Additionally in Tinto (Tinto, 1993, p. 183), he suggests that the appropriate learning environment can be important, including the use of group tutorials and work. . The connection of these previous concepts to Friday class offerings is direct, although there is no mention of them in Tinto. With additional Friday class offerings, students may have more contact with faculty and staff (five days a week) and have diversification of assignments throughout a longer week. This may allow students to more effectively plan and manage high workloads. Stress and pressure may be greater with a four-day week.

In more recent work Tinto advanced further ideas regarding student retention and success (Tinto, 2004). He emphasizes that schools can improve retention by doing things that improve academic performance. In (Tinto, 2003, p. 6) he emphasizes that effective reforms “either are located in the classroom or are directed toward the task of learning in the classroom”. He is not referring directly to Friday class offerings, but they may have the same effects. One relatively recent study shows an effect of class structure on performance (Gallo & Odu, 2009). This finding is limited to mathematics courses, but it suggests that a five-day class week may lead to deeper understanding of academic content. This paper provides strong evidence of the more general effect that a four-day class week negatively impacts retention. This may be in part due to limitations it imposes on the learning process. In the earlier work of Tinto and others in the field, the 4-day vs. 5-day discussion may not have been as relevant, since the four-day class week was less prevalent then.

Also of interest as it relates to the impact of a four-day academic week is the attribution theory of achievement (Schunk & Zimmerman, 2006). Here a student interprets events, such as illness, in a way that influences motivation for learning. As an illness may decrease motivation for learning, a four-day academic week may do the same. As this theory suggests, counselors could look for and try to counter effects of these limitations. Counselors may recognize the impact of a four-day academic schedule and work to counter its adverse effects. This would be important at schools that persist in having a great number of Monday/Wednesday class offerings.

Retention is affected by many factors, perhaps the most important of which is academic preparation. Prior to the work of Tinto, (Bean, 1980) emphasized the importance of quality in prior education as it relates to retention in college. More recently high school academic achievement indicators were shown to be positively related to retention (Adelman, 1999). Similarly in (Gansemer-Topf & Schuh, 2006) NCES selectivity scores were used to correlate with retention. And in (Raikes, Berling & Davis, 2012) the mean GPA of the freshman class was used. Additionally (Goenner & Snaith, 2004) used GPA and SAT measures. In the empirical work that follows, established control factors are included representing the ability of students. Without this control, the effect of Friday class offerings on retention cannot be measured.

Institutional control, i.e., private versus public, may also affect retention (Pascarellla & Terenzini, 2005, p. 383). Private education environments appear to support higher retention when little attention is paid to ability of the students. However when the effect of student ability is controlled the effect is weakened. Institutional size can also affect retention (Pascarellla & Terenzini, 2005, p. 386). One study found that larger schools have lower retention when other student ability and institutional variables are controlled (Astin, 1993). Other studies found an indirect effect through social involvement. Presumably social involvement is less at larger schools and this may lower the retention.

**Method**

This study is made possible by painstaking compilation of data that is available for public scrutiny online at (Claycombe, 2016). The compilations were painstaking because access to the data was less than optimal. Schools’ schedule of classes had to be copied from the internet and pasted into excel, sometimes a department at a time. Once all the pasting was done, the selection process described below often had to be done via excel, not by the school’s selection software. Once the sample was narrowed appropriately, the counting had to be done visually, not as a computer would if all the necessary information was accessible digitally. I welcome recounts done by anyone who is able to do them better.

In (Claycombe, 2016) one can see spreadsheets that contain schools’ schedule of classes and tallies of courses that meet on Friday or don’t. These percentages range from a low of 2 percent to a high of 81 percent. The four-day schools generally have few MWF classes. Most classes are either MW or TTh or sometimes one day classes which seldom meet on Friday. Some “5 day” schools have MF or WF courses. Occasionally TF. Even ThF. A few schools have class on the weekends, which I count in the Friday category. But these are rare. Other details in the tabulation methods are: 1) classes that meet past 6 PM are not counted, as evening classes seldom meet on Friday; 2) only classes that meet at least 3 hours (50 minute) are counted, as smaller courses sometimes meet on Friday but to include these and all other smaller courses would give smaller percentages of Friday courses; 3) only undergrad courses are counted, as retention and graduation rates only apply to undergraduates; 4) lab courses are counted according to the number of labs and if the lecture meets on Friday all the labs are counted as Friday ones regardless of when the labs meet. If the lecture doesn’t meet on Friday and 4 labs also don’t and one does, then there are 4 non Friday and one Friday courses. One can argue for other ways to figure the percentage of Friday courses, but most schools would be affected similarly and the correlation between the percentage of Friday courses and retention and graduation rates should be not be affected much.

The compilations began years ago and cover the flagship schools of every state and the top 125 liberal arts schools and the Ivy League and all state schools in some big cities. For this study, these percentages were compiled for every school in the Northeast (the District of Columbia and states north and east of that) that had data available for the other variables in this study; retention and/or graduation rates and acceptance rates. This makes a sample of over 280 schools and highly significant effects are found. Large benefits of moving back to a five-day week are suggested.

Without data to control for the ability of students (acceptance rates or SAT averages) it would not be possible to measure the effect of Friday classes on retention and graduation rates.[[1]](#footnote-1) The models used are regression where either the retention rate or the graduation rate is a function of the percent of courses with class on Friday and either the acceptance percentage or the SAT average. It is reasonable to use the acceptance rate as a measure of the ability of students that attend a school. Schools like Harvard have low acceptance rates (6 percent) but very high retention and graduation rates (both 97).[[2]](#footnote-2) At the opposite extreme, acceptance rates are over 80 percent and retention is under 80 percent and graduation is under 60 percent. Sometimes it is argued that acceptance rates are imperfect measures of a school’s selectivity, but if they are flawed this probably affects all schools similarly and in any case does not appear to harm the strong correlation found in this study. There are some studies that model retention and/or graduation rates as a function of variables that affect acceptance rates, College Board scores, high school grades etc. ((Gansemer-Topf & Schuh, 2006) uses NCES selectivity scores, but access to this requires a license. (Raikes, Berling & Davis, 2012) uses mean GPA of the freshman class. (Goenner & Snaith, 2004) uses GPA and SAT measures. SAT averages are also used in this study to control for student ability, except that these data are not as widely available as the acceptance rates are. The SAT variable correlates with retention even better than acceptance rates, but one must be concerned about selection bias in the smaller sample. Schools that are least proud of these numbers tend to be the ones that don’t make them available and these are the sorts of schools that most need to be in this study. For this reason retention effects are reported both ways and one can see that the Friday class effect is robust.

The percent of courses that meet on Friday varies widely. Some schools in the Ivy League have very few classes on Friday. All this data can be seen online, but for example, Harvard had only 12 percent of its courses that meet on Friday. It still had very high retention and graduation rates suggesting that at schools this selective, students don’t need class on Friday to apply themselves or to make contact with faculty and staff. Also in the Ivy League Dartmouth has a very respectable 10 percent acceptance rate, but that is 4 percentage points higher than Harvard. Based on that, Dartmouth’s retention rate should be lower than Harvard’s. But Dartmouth has 61 Percent Friday Courses, (Harvard 12) and Dartmouth has a higher retention, 98 versus 97. At these levels it’s hard to make much difference but at least here the Friday class effect more than offsets the acceptance rate effect. And nearby is Middlebury with an almost as impressive 18 percent acceptance rate and 48 percent of its classes on Friday: much better than Harvard. Harvard is more selective so its retention rate should be higher, but they are both 97 percent. Or slightly to the west compare Columbia and Cornell; they have the same retention and graduation rates (97 and 93). But Columbia is more selective, a 7 percent acceptance rate versus Cornell’s 16. Columbia should do better than Cornell, but its percentage of class on Friday is much lower, 12 versus 36. Class on Friday at our most selective schools may not make much difference, but it still seems to make a difference.

Unfortunately there are schools at the other extreme that seem substantially affected. For instance, Wheelock College had only 29 percent of its courses meet on Friday and had retention rate at 66 percent and graduation rate at 54 percent. Wheelock has an acceptance rate near 80 percent. So does Western New England U, but it had 52 percent of its courses meet on Friday and had retention rate at 73 percent and graduation rate at 62 percent. This is just an example, but completely in keeping with what the following models suggest; each percent of courses with class on Friday increases the retention rate by about .25 percent points and the graduation rate by about .5 percent points.

It is possible to include measures of other variables that the literature suggests may affect retention. Institution type and size affect retention and graduation rates in some of the previously mentioned studies. It is also possible to identify church affiliation, which is analyzed in some of the literature (Raikes, Berling & Davis, 2012).

The retention and graduation rate models are estimated in two ways. The simpler way is just ordinary least squares of the data described above. The better way is weighted least squares where the weights are the enrollments of the schools.[[3]](#footnote-3) This gives schools with more students more weight in the regressions and better represents the effect of Friday classes on the general student population. It does not give small schools a disproportionate effect on the regression.

**Results**

**Retention Effects With Acceptance Rate Control**

Four regressions are given in Table 1 when the acceptance rate is used to control for student ability. The retention rate is the dependent variable in this table while the graduation rate is modeled in a similar fashion in Table 2. In equation 1 of Table 1 we have an unweighted retention model for the Northeast states (n = 282) with only the Percent Friday Course and the acceptance variable included**.** The t values for the coefficients are3.95 and -13.9**,** both significant.[[4]](#footnote-4)The acceptance variable is highly significant as one might expect. For each percentage point that the acceptance rate goes up, the retention rate goes down by almost a third of a percentage point.The R2 is.42**,** good for a cross section model with only two variables. Most important is the effect of the Percent Friday Course variable; if a school were to increase its percent of courses with class on Friday by 20 percentage points, it can expect its retention rate to increase by 2.6 percentage points (.129\*20).

In equation 2 of Table 1, we have the same model but with the three additional variables included. The Percent Friday Course and acceptance variables are weakened only slightly. The

Table 1

Retention Rate Regressions

Equation Number 1 2 3 4

Dependent Variable Retention Retention Retention Retention

Rate Rate Rate Rate

B (t stat) B (t stat) B (t stat) B (t stat)

Constant 95.5 (53.1) 89.3 (39.6) 93.9 (56.2) 86.5 (48.6)

Percent Courses w Friday Class .129 (3.95) .112 (3.66) .201 (6.07) .158 (5.30)

Percent Accepted -.315 (-13.9) -.286 (-12.3) -.302 (-14.5) -.264 (-13.2)

Church School 1.51 (1.31) 1.00 (0.78)

Private School 5.35 (4.59) 4.47 (4.51)

Enrollment (1000’s) .435 (5.99) .359 (9.00)

R2 .42 .51 .46 .59

Regression Weighted No No Yes Yes

R2 is higher at .51. Church affiliation seems to have a weak positive effect. Retention appears to be higher in private schools as often found in the literature. But retention also seems to be positively related to school size which is not what is found in the literature. Perhaps this is due to lack of control for other variables, but in any case it does not have much effect on the Percent Friday Course correlation. This is explored further in the section on SAT control.

The weighted retention rate regressions are given next in equations 3 and 4 of Table 1. In equation 3 we have just the Percent Friday Course and acceptance variables. The t values for the coefficients are 6.07 and -14.5, both highly significant. R2 is .46. In this regression the small schools don’t have so much influence on the fit. The regression gives all students equal influence on the coefficients. Focusing on the Percent Friday Course effect, if a school were to increase its percent of courses with class on Friday by 20 percentage points, it can expect its retention to increase by4**.**0 percentage points (.201\*20).

The equation 4 of Table 1 is weighted and has all the variables included. Once again the Percent Friday Course and acceptance variables are slightly weakened, but still highly significant. The three additional variables are generally weaker than in the unweighted equation 2, especially the church variable.

Table 2 models the graduation rates. Equation 1 of Table 2 is the unweighted graduation rate model with just the Percent Friday Course and acceptance variables. (Still for the Northeast, but n = 284, as a few more schools had the graduation rate available than the retention rate.) The t values for the coefficients are5.93 and -12.7,both highly significant as before. The R2 is.40***.*** Most important again, is the size of the Percent Friday Course effect. As in the example above, if a school were to increase its percent of courses with class on Friday by 20 percentage points, it can expect its graduation rate to increase by 7.2 percentage points (.359\*20). The equation 2 of Table 2 adds the other three variables. As before the Percent Friday Course and acceptance variables effects are slightly weakened. Church affiliation seems to increase graduation rates by about 0.94 percent points but the correlation is weak. Graduation rates appear to be about 15 percentage points higher in private schools. And graduation rates once again are positively related to school size. The R2 is higher than in equation 5 at .51.

The weighted graduation rate regressions are the last two in Table 2. The first of these, equation 3 has only the Percent Friday Course and acceptance variables. The t values for the coefficients are 7.41 and -12.0,both highly significant.The R2 is .40.In this regression the small schools don’t have so much influence on the fit. The regression gives all students equal

Table 2

Graduation Rate Regressions

Equation Number 1 2 3 4

Dependent Variable Graduation Graduation Graduation Graduation

Rate Rate Rate Rate

B (t stat) B (t stat) B (t stat) B (t stat)

Constant 82.8 (25.1) 66.8 (17.1) 77.2 (22.9) 60.8 (17.1)

Percent Courses w Friday Class .359 (5.93) .309 (5.54) .499 (7.41) .405 (6.72)

Percent Accepted -.527 (-12.7) -.462 (-11.2) -.506 (-12.0) -.410 (-10.2)

Church School 0.94 (0.46) 0.53 (0.21)

Private School 14.7 (6.90) 14.5 (7.38)

Enrollment (1000’s) .614 (4.36) .591 (7.48)

R2 .40 .51 .40 .54

Regression Weighted No No Yes Yes

influence on the coefficients. Focusing on the Percent Friday Course effect, if a school were to increase its percent of courses with class on Friday by 20 percentage points, it can expect its graduation rate to increase by10.1percentage points (.506\*20). This would be a phenomenal benefit to a school, but given how low some graduation rates are, still well within reasonable expectations.

The last equation in Table 2, equation 4, has all the variables and is weighted. Once again the Percent Friday Course and acceptance variables effects are slightly weakened. And once again, of the additional variables, the private school and enrollment variables are significant and slightly stronger than in equation 2. The church affiliation effect is very weak.

In sum, regardless of specification or weighting scheme the Percent Friday Course variable is robustly significant. And this finding controls well for the ability of students with the acceptance rate. One troubling aspect of the results is the positive effect of school size on retention. Other studies found a negative effect, especially when social involvement effects were not controlled. Perhaps this difference is due to use of the acceptance rate to control for student ability. So to check this possibility, the more traditional variable, SAT, is used in the following section.

**Retention Effects With SAT Control**

Most other studies of retention use SAT scores to control for student ability, but these scores are not so widely reported as are acceptance rates.[[5]](#footnote-5) This raises the possibility that there could be selection bias in the results, due to schools least proud of these numbers being excluded from the sample. In studies such as (Astin, 1993) this is not a problem because the data comes from student surveys where the individual’s SAT score is reported, not a school’s average. But in studies like this one, it is a concern. In this study there are 42schools that report their acceptance rate but not their SAT average. The difference that this makes is probably easier to follow if the Percent Friday Course effect is explored first and the other variables follow.

In Tables 3 and 4 unweighted regressions are displayed making it possible to see the effect of model specifications. In Table 5 weighted regressions are given for a smaller number of equations suggested by what is seen in Tables 3 and 4. In equation 1 of Table 3 the retention rate is a function of only the SAT average and Percent Friday Course variables. The R2 is very impressive at .76. SAT’s correlate with retention even better than acceptance rates and Percent Friday Course variable is still strong. But the Percent Friday Course effect is about half what it is in Table 1 ( .069 vs .129). Equation 2 of Table 3 suggests that this is partially due to selection bias. In Equation 2 of Table 3 the selection bias is eliminated by using proxy values for the missing SAT values. A strong correlation exists between the acceptance rates and SAT’s and a simple linear relation between the two was found: SAT =1451-5.739\*acceptance rate, R2 = .53 In this regression, where the full sample is used, the Percent Friday Course effect is up to **.**098. It is much closer to the Table 1 value, .129. The remaining difference may be due to the SAT variable’s superior correlation with the retention rate.

In Equations 3 and 4 the other variables are added. The effect of this on the Percent Friday Course variable is discussed first. In Equation 3, the available SAT values are used and the addition of the other variables slightly weakens the Percent Friday Course variable just as in Table 1. In Equation 4, the proxy SAT values are used and the addition of the other variables slightly weakens the Percent Friday Course variable just as in Table 1.

In equation 3 of Table 3 when the other variables are included the R2 is up to .79. The school size variable has a significant effect, similar to the one in Table 1. Church affiliation now

has a significant positive effect and the private school variable now has a weak negative effect. In Equation 4, where the SAT proxies are used to restore the full sample, the private school

Table 3

Unweighted Retention Rate Regressions with SAT Control

Equation Number 1 2 3 4

Dependent Variable Retention Retention Retention Retention

Rate Rate Rate Rate

B (t stat) B (t stat) B (t stat) B (t stat)

Constant 23.9 (10.7) 19.3 (6.99) 20.0 (8.81) 16.4 (5.83)

Percent Courses w Friday Class .069 (3.22) .098 (3.90) .057 (2.84) .089 (3.69)

SAT Average .050 (27.2) .053 (22.7) .054 (25.1) .053 (20.2)

Church School 3.52 (4.57) 3.63 (3.91)

Private School -2.01 (-2.33) 0.16 (0.15)

Enrollment (1000’s) .156 (3.08) .254 (3.93)

R2 .76 .66 .79 .69

Sample Size 240 282 240 282

variable has a near zero effect and the church affiliation effect is almost the same as in Equation 3. The school size effect is somewhat larger.

In Table 4 the same pattern is followed for the graduation rate as the dependent variable. In Equation 1 only the Percent Friday Course variable and the SAT variable are included. The R2 is up to .75 due to the power of the SAT variable and the Percent Friday Course effect is substantially weaker than Table 2 (.359 vs .230). In Equation 2 of Table 4 the proxy values for SAT are added eliminating the selection bias and the Percent Friday Course effect is back up near the Table 2 size (.359 vs .309).

Table 4

Unweighted Graduation Rate Regressions with SAT Control

Equation Number 1 2 3 4

Dependent Variable Graduation Graduation Graduation Graduation

Rate Rate Rate Rate

B (t stat) B (t stat) B (t stat) B (t stat)

Constant -43.4 (-10.2) -50.7 (-10.3) -47.7 (-10.8) -51.9 (-10.3)

Percent Courses w Friday Class .230 (5.69) .309 (6.87) .199 (5.08) .277 (6.33)

SAT Average .091 (25.7) .093 (22.7) .093 (22.4) .090 (19.3)

Church School 5.96 (4.03) 4.52 (2.76)

Private School 1.03 (0.63) 4.71 (2.57)

Enrollment (1000’s) .137 (1.41) .205 (1.78)

R2 .75 .67 .77 .69

Sample Size 241 284 241 284

In Equations 3 and 4 of Table 4, the other variables are added with similar results as in the retention rate regressions (Equations 3 and 4 of Table 3). In Equation 3 of Table 4, the Percent Friday Course effect is slightly weaker (.230 vs .199) due to the control provided by the other variables, just as in Table 2 when the ability of students was controlled by acceptance rates. In Equation 4 of Table 4 where the proxy SAT values are used, the Percent Friday Course effect is also slightly weakened (.309 vs .277).

In Equation 3 of Table 4 when the other variables are included the R2 is up to .77. The church affiliation variable is strong as in Equation 3 of Table 3. The private school and school size variables are now both weakly positive. In Equation 4 of Table 4, where the SAT proxies are used to restore the full sample, both the church affiliation and the private school variables have significant positive effects. The school size effect is only weakly positive.

InTable 5 weighted regressions are given for regressions that use the full sample made possible by use of the SAT proxies. In Equation 1 of Table 5 the retention rate is a function of only the Percent Friday Course variable and the SAT variable. Weighting the regression strengthens the Percent Friday Course effect and weakens the SAT effect. In Equation 2 of Table 5 the other variables are added and the weighting once again strengthens the Percent Friday Course variable a little and weakens the SAT variable a little. The other variables’ effects aren’t affected much by the weighting. In Equation 3 of Table 5, the graduation rate is the dependent variable and only the Percent Friday Course and the SAT variables are included. Once again, weighting strengthens the Percent Friday Course variable and weakens the SAT variable a little. And this happens again in Equation 4 of Table 5. Of note in Equation 4, however, the school size effect is substantially stronger. The private school effect is somewhat stronger and the church affiliation effect somewhat weaker.

The regressions in Tables 3 and 4 were done primarily to explore the cause of the unexpected positive effect of school size on retention found in Tables 1 and 2. The fear was that this unexpected finding cast doubt on the validity of the rest of the correlations. In Tables 3 and 4 the more traditional control for student ability, SAT, was used in spite of the fact that it limits the sample to schools that are willing to publish this information about their school. Of primary importance the Percent Friday Course effect remains robustly significant in Tables 3 and 4, although size of its effect is smaller than in Tables 1 and 2. In Table 5 where weighting is used the effects are somewhat larger, but still less than in Tables 1 and 2. The school size effect is not robust in Tables 3 and 4 but the positive effects that are found can be reconciled with the

Table 5

Weighted Retention and Graduation Rate Regressions with SAT’s

Equation Number 1 2 3 4

Dependent Variable Retention Retention Graduation Graduation

Rate Rate Rate Rate

B (t stat) B (t stat) B (t stat) B (t stat)

Constant 24.3 (8.94) 23.7 (8.74) -46.7 (-8.62) -42.2 (-7.57)

Percent Courses w Friday Class .122 (4.47) .097 (3.83) .359 (6.61) .311 (5.96)

SAT Average .048 (21.1) .047 (18.5) .088 (19.3) .078 (15.1)

Church School 3.03 (2.72) 4.00 (1.78)

Private School 0.22 (0.15) 6.67 (3.56)

Enrollment (1000’s) .240 (6.77) .375 (5.19)

R2 .64 .70 .61 .66

Sample Size 282 282 284 284

previous literature in the following way. First, the negative effect is only found in studies such as (Astin, 1993) where student survey data is used, not school retention rates like in this paper and others (Gansemer-Topf & Schuh, 2006; Raikes, Berling & Davis, 2012; Goenner & Snaith, 2004). These other studies don’t include a school size variable. In the survey studies that sometimes find a negative or insignificant effect there are numerous other variables that may capture the positive effect found in this study. What we probably have in this study is just the correlation of school size with flagship and Ivy League schools, both of which are large for schools of their type (private or public). Degrees from these schools have a premium of value that gives students an extra incentive to persist. The focus of this paper is on the Friday class effect and it is found to be robust. Regardless of how the ability of students is controlled or how other exogenous variables are specified or how the observations are weighted, a significant effect is found on both graduation and retention rates.

**Discussion**

The weighted average of the percentage for courses with class on Friday in the sample is 35, suggesting substantial room for improvement of schedules. Obviously, class on Friday and a five-day class week are not popular and there will be resistance to demands for a longer class week. But schools that do this unpopular thing get substantial rewards: more and/or better students and their tuition and more and better learning, the purpose of higher education. And a five-day week does not have to be a traditional one with only MWF and TTh classes. Some schools have MF and WF classes. A few schools have MTh and TF classes making W the off day. While this still packs the classes into 4 days, students are still at school Monday through Friday with the beneficial contact with faculty, staff and other students. The point is that faculty can to be required to spread the work week over five days. And if they aren’t, counselors can at least try to get troubled students into Friday courses and lacking that, be on guard for academic problems. Whatever the case, the potential for improved achievement for students and revenues for schools is large.

**References**

Adelman, C. (1999). *Answers in the tool box: Academic intensity, attendance patterns, and bachelor's degree attainment*. Washington, D.C.: Office of Education Research and Improvements, U.S. Department of Education.

Astin, A. (1993). *What matters in college? Four critical years revisited.* San Francisco: Jossey- Bass.

Bean, J. (1980). Dropouts and Turnover: The Synthesis and Test of a Causal Model of Student Attrition. *Research in Higher Education*, *12*(2), 155-87.

Claycombe, R. (2016). Four day week. Retrieved from <http://www2.mcdaniel.edu/Bus_Econ/FourDay.html>

Gallo, M., & Odu, M. (2009). Examining the relationship between class scheduling and student achievement in college algebra. [*Community College Review*](http://www.researchgate.net/journal/0091-5521_Community_College_Review)*, 36*, 299-325.

Gansemer-Topf, A. M., & Schuh, J. H. (2006). Institutional selectivity and institutional expenditures: examining organizational factors that contribute to retention and graduation. *Research in Higher Education*, *47*(6), 613-642.

Goenner, C. F., & Snaith, S. M. (2004). Predicting graduation rates: An analysis of student and institutional factors at doctoral universities. *Journal of College Student Retention: Research, Theory & Practice*, 5(4), 409-420.

Komarraju, M., Musulkin, S., & Bhattacharya, G. (2010). Role of Student-Faculty Interactions in Developing College Students' Academic Self-Concept, Motivation, and Achievement. *Journal of College Student Development*, 51(3), 332-342.

National Center for Education Statistics. (2016). College Navigator. Retrieved from <http://nces.ed.gov/collegenavigator/>

Open Education Data Base. (2015). Retrieved at <http://oedb.org/rankings/>.

Pascarella, E. T., & Terenzini, P.T. (2005). *How College Affects Students, Volume 2, A Third. Decade of Research*. San Francisco, CA: Jossey-Bass.

Raikes, M. H., Berling, V. L., & Davis, J. M. (2012). To dream the impossible dream: College graduation in four years. *Christian Higher Education*, 11(5), 310-319.

Sanford, T., & Hunter, J. M. (2011). Impact of performance-funding on retention and graduation rates. *Education Policy Analysis Archives*, 19(3), 1-30.

Schunk, D.H. & Zimmerman, B.J. (2006). Competence and control beliefs: Distinguishing the means and ends. In Alexander, P.A. & Winnie, P.H. (Eds.). *Handbook of educational psychology (2nd ed.)*. Mahwah, NJ: Lawrence Erlbaum Associates.

Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition. (2nd ed.)*. Chicago: University of Chicago Press.

Tinto, V. (2003). Establishing Conditions for Student Success. In Thomas, L., Cooper, M. and Quinn, J. (eds). *Improving Completion Rates Among Disadvantaged Student.* Chicago: Stoke on Trent: Trentham Books..

Tinto, V. (2004). *Student retention and graduation: Facing the truth, living with the consequences*. Washington, D.C.: The Pell Institute.

Tinto, V. (2007). Research and practice of student retention: What next? *Journal of College Student Retention: Research, Theory & Practice*, 8(1), 1-19.

USNews and World Report Education. (2015). College compass*.* Retrieved from http://[www.usnews.com/usnews/store/college\_compass.htm](http://www.usnews.com/usnews/store/college_compass.htm)

1. One can look at the OEDb (Open Education Data Base, (2015)) for data on retention and graduation rates. But generally this study got these rates directly from the school sites. Links to these sources are given in the excel sheets given at (Claycombe, 2016). Excel sheets are also available here for the tabulation of the percent of courses that meet on Friday. [↑](#footnote-ref-1)
2. Retention rates are the percentage of new freshman that return for their sophomore year. Graduation rates are the percentage of students who graduate within 6 years. Usually this information can be found on a school’s website. Links to the data that are used in this study are found in excel spreadsheets for each state at (Claycombe, 2016). Most schools are included in the study. Ones that aren’t either didn’t make this information or the schedule of their classes available. [↑](#footnote-ref-2)
3. The weights are actually the enrollments divided by mean enrollment. This method retains the degrees of freedom at the unweighted level. [↑](#footnote-ref-3)
4. If the population is defined as just schools at this point in time (f14, s15, f15 or s16), then the finite correction factor makes the standard errors only a fraction of what they are given as. This is because we have a 100 percent sample of schools with available data and most schools have the data available. Inspect the spreadsheets online (Claycombe, 2016) to see the schools. [↑](#footnote-ref-4)
5. Most SAT values can be found on the college navigator (<http://nces.ed.gov/collegenavigator/>). Some that cannot, can be found on the school’s web page and some that are found on the school page are not reported to the navigator. The source of values used in this study can be seen on the data spreadsheet at Claycombe (2016). The typical display of this data gives the 25th and 75th percentiles of the SAT’s. The average of these values is used in this study. [↑](#footnote-ref-5)