

A Study of Students Belonging to University Studies Division (USD) for USD Task Group August, 2008

Background and History

At any given time, the University Studies Division (USD) at UH contains approximately 5,000 students who have not declared at major. This amounts to roughly 19% of the undergraduate population at UH. Students enter USD at three stages in their college careers: (i) as undeclared FTICs, (ii) as undeclared transfer students and (iii) as students who have either failed at or become disinterested in a major. Each year, approximately 1,200 new first-time in college freshmen (FTICs) join USD upon enrolling at UH¹. At the end of one calendar year, approximately 82% of those still enrolled at UH remain in USD². Each year, approximately 1,200 students join USD upon transfer to the university from another institution of higher education³. After one calendar year, approximately 41% of the transfer students who are still attending UH remain in USD. As is demonstrated in **Table 1**, as a proportion of a membership group, new FTIC and transfer students are more highly represented in USD than as a proportion of the undergraduate population.

**Table 1: New FTIC and Transfer Students as a Proportion of USD
and UH Undergraduate Population: Fall, 2007**

	USD		UH	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
New FTIC	1,090	23.7	3,297	12.4
New Transfer	681	14.8	2,603	9.8
Total Undergraduates	4,597	100.0	26,495	100.0

* Does not include pre-pharmacy students

¹ Approximately 95% of FTICs begin studies in the fall. Generally less than 100 FTICs start at UH during the spring semester. Numbers are approximate averages.

² Fall, 2005 FTIC USD cohort

³ Generally between 650 and 700 new transfer students enter USD in the fall, while roughly 500 transfer students enter in the spring. Numbers are approximate averages.

As mentioned, the third entry point consists of students transferring to USD from a major of choice either due to dissatisfaction or disinterest in that major or because they no longer meet the academic requirements for continued progress in that major. The number or proportion of USD students leaving a major to become undeclared has been largely unknown prior to the work of the USD Task Group. In fact, the proportion of students entering USD from any of the three possible pathways was largely unknown prior to this undertaking. USD students who had a previous major will be discussed in greater detail later in the paper.

Faculty and staff at UH have several implicit hypotheses, largely based on experience and anecdotal evidence, about why students fail to select a major early in their college careers. For example, some staff report anecdotal evidence that some students fail to declare a major and are thereby associate with USD to avoid the higher college fees tied to many majors at the university. There is also anecdotal evidence to suggest that some students aspire to certain majors but do not academically meet the requirements for the major of interest and therefore become associated with USD in the hope that their early academic career at UH will prove successful enough to allow them to transfer out of USD and into the major to which they aspire. The number or proportion of USD students working for academic success in the hope of joining a desired major is not known, and this concept of aspiration for a major is not easily operationalized or measured. The issue of aspiration to a major will be explored later in this paper through the analysis of admissions data; however, methodological issues constrain the ability to garner a complete picture of the extent to which this phenomenon occurs.

USD students have not fared as well with respect to graduation and retention at UH. For example, FTICs who start in USD had one year retention rates ranging from 73.9% to 78.6% between 2000 and 2006 whereas non-USD students had one year retention rates ranging from 78.6% to 80.5% during the same time period. Likewise, the six-year cumulative graduation rate for the most recent student cohort (2001) was 38.2% for FTICs who started at UH in USD, whereas the non-USD FTIC students had a six year graduation rate of 45.2%.

On February 11, 2008, the Senior Vice President and Provost at UH, established the Task Group in University Studies Division. The Task Group was created in response to concerns with respect to the relatively worse retention and graduation rates USD students experience in comparison to their undergraduate counterparts at the university who have declared a major. The Task Group was charged with several tasks: (i) to review relevant reports from the EMTF and the data on the various subgroups that comprise students in USD; (ii) to review solutions to similar problems that have been devised at our sister institutions across the country; and (iii) to propose a plan for reducing the number of students in USD by 90% within two years. It is believed that understanding and ultimately devising a strategy for assisting students in finding

an educational pathway to success will benefit the students and the university greatly, as improvements in student retention and graduation rates help students increase earning potential in the workforce and assist the university with respect to accountability and enrollment.⁴

A Taxonomy by Which to Understand USD Students

The heterogeneous nature of the UH students who have not declared a major and are subsequently placed in University Studies (USD) has long frustrated those attempting to design and implement interventions aimed at improving or ensuring their success. This heterogeneity also impedes meaningful study of proposed interventions aimed at improving academic success as well as the interpretation of results obtained from undertaking such study. For example, it could be that some student groups in USD fare better than others with respect to educational outcomes, while other student groups possess attributes that make them more at risk of failing or not meeting important educational outcomes. Proposed changes to university policies with respect to USD could impact groups differently. It is for this reason that taxonomy has been developed for the identification and classification of USD students. The taxonomy was developed by careful study of a cross-sectional snapshot of students identified as not having a declared major and as being associated with USD in the fall of 2005. This group of 4,405 students was chosen for study because of the ability to follow them longitudinally (including retrospectively) to better understand their unique needs, risk factors and potential for success. Through in-depth study, students began to cluster into four groupings which form the basis of the taxonomy.

The USD cohort can generally be classified as follows:

1. **FTICs:** Defined as first time in college students who did not declare a major the first semester they enrolled at UH and were thus subsequently placed in University Studies. These students were only classified as FTICs if they started at UH within 2.5 years of being identified as part of the fall, 2005 USD cohort (first enrolled between fall of 2003 and fall of 2005).
2. **Transfer Students:** Defined as students who transferred to UH from another institution of higher education between the fall of 2003 and the fall of 2005 (within 2.5 years of being identified as part of the fall, 2005 USD cohort) and who did not declare a major the first semester they enrolled at UH and were thus subsequently placed in University Studies.

⁴ See February 11, 2008 memorandum from Donald J. Foss, Ph.D. to Task Group on University Studies Division.
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3. **Had-a-Majors:** Defined as students who were identified as having a major in the past but who changed their majors to USD sometime between the fall of 2003 and the fall of 2005 (within 2.5 years of being identified as part of the fall, 2005 USD cohort).
4. **Sporadic and Part-Time Attendees:** Defined as students who were not identified as being FTICs, as being transfers or as having changed majors in the 2.5 years before being identified as part of the fall, 2005 USD cohort. These students tended to have had long-standing careers as college students and to have experienced frequent periods of “stop outs” and part-time attendance.

The first three categories capture the three possible modes of entry into USD. The fourth essentially adds a time component to the groupings. Technically, if one were to trace all students back through time indefinitely, they all would fall into the first three groupings; however, maintaining a taxonomy that re-categorizes students based on time is warranted, as preliminary analyses indicated that length of time in USD can serve as a proxy for capturing certain student characteristics that make degree attainment more difficult

The relationship between the four USD groups is conceptualized in **Appendix A**. As the Venn diagram indicates there is expected to be some overlap between these groups. For example, some students identified as FTICs and Transfers using this taxonomy may eventually be Sporadic and Part-Time Attendees, but they are too early in their college careers to be cleanly identified. And, as will be explored later, while one would expect to see some overlap within the groups in terms of grades, attendance patterns, and reasons for landing in USD, there is good reason to believe that policies aimed at reducing the number of students in USD could impact these four groups differently. Likewise, colleges attending to the advising needs of these student groups will need to understand their differences in order to effectively work with them to facilitate student retention and progress towards obtaining a degree

Sub-Group Differences

FTICs

The 2005 USD cohort consisted of 2, 466 first-time in college students, amounting to just under 56% of the entire group. The majority of the FTICs were in their first semester of college or New FTICS (55%). FTICs tend to enter USD primarily in the fall, and this pattern of entry mirrors the larger UH FTIC cohort. For example, during the fall of 2005, USD gained 1,357 new FTICs USD students. That following spring, only 78 new FTICs entered USD.

The FTIC student in USD can be characterized as generally having a higher GPA than their non-FTIC USD counterparts. In fact, FTICs in the USD cohort had a mean cumulative GPA of 2.5 ($\underline{sd} = .81$, Median = 2.5)⁵. They have relatively low mean cumulative hours ($\bar{x} = 24.5$)⁶, mainly due to the high number of new FTICs in the cohort. Nevertheless, with a mean semester credit hour (SCH) of 12.3 hours in the fall of 2005, this group of students had the highest average number of hours attempted of any of the four USD groups. **Table 1** further delineates the relationship between FTICs and the other three USD groups in terms of these indicators.

Table 2: GPA and SCH

	\bar{x} Cumulative GPA	\bar{x} Cumulative Hours	\bar{x} Fall, 2005 SCH
FTICs	2.5 Highest	24.5 Lowest	12.2 Highest
Transfers	2.3 Middle (tied)	59.5 Next to Highest	10.4 Next to Lowest
Had-A-Majors	2.3 Middle (tied)	56.6 Next to Lowest	11.4 Next to Highest
Sporadic and Part-Time Attendees	2.1 Lowest	60.0 Highest	10.1 Lowest

Transfers

The 2005 USD cohort consisted of 1,232 students who transferred to UH in the previous 2.5 years without a declared major and were subsequently placed in USD. This amounted to approximately 28% of the USD population at the time of this cross-sectional sample. Unlike FTICs, new transfer students are likely to enter the university both in the spring and the fall of each year. In the fall of 2005, 688 new transfer students entered USD, while 488 new transfer students entered UHD in the spring of 2006⁷

⁵ GPA recorded at end of fall, 2005 semester.

⁶ Cumulative hours at end of fall, 2005 semester.

⁷ This cross-sectional sample only included new transfer students who were part of the fall, 2005 cross-sectional sample. It is possible that spring transfer students have different characteristics than fall transfers, but this could not be explored in the current study.

Transfer students had slightly lower cumulative GPAs than their FTIC counterparts, with a mean cumulative GPA of 2.3 (sd = .9, Median = 2.4). This group of students had the highest cumulative hours taken (\bar{X} = 59.4, sd = 21.8, Median = 59). However, the average number of semester credit hours taken was lower, possibly due to additional work commitments associated with increased age⁸ (\bar{X} = 10.4, sd = 3.5, Median = 12.0).

Had-A-Majors

Of the 4,405 students in the fall, 2005 USD cohort, 237 came to USD within the past 2.5 years from another major at the university. While the exact cause of the change from a declared major to USD is unknown, it is assumed that many of the students left the major because they were doing poorly in the classes. Students who had a major are the smallest of the four USD groups, only accounting for 5% of the students in USD. And, almost half of the Had-A-Majors entered USD in the Spring of 2005 (n = 110), indicating a relatively short stint in USD for the majority of students in this category.

While differing from their FTIC and Transfer counterparts, students who had a major tended to perform in the middle range on the three indicators studied thus far. For example, they tied with Transfers for middle position for cumulative GPA (\bar{X} = 2.3, SD = .53, Median, 2.3). The mean cumulative SCH for this groups was also in the middle range at 56.6 hours (sd = 23.3, Median = 54.0) as was the mean number of SCH attempted in the fall of 2005 (\bar{X} = 11.4, sd = 2.7). The most outstanding indicator that sets this group apart from the others is that this small group of students at one time chose a major.

Sporadic and Part-Time Attendees

As mentioned previously, adding a time component to this taxonomy of USD students provides additional insight into the college careers of students who entered USD through the above three methods but who had a long-standing relationship as an undeclared major with the university. The fall, 2005 USD cross-sectional sample is comprised of 470 students (11%) who could not be identified as an FTIC, Transfer or Had-A-Major in the 2.5 years preceding fall of 2005.

The students who were associated with USD in the fall, 2005 cross-sectional sample but who had been a student at UH for more than 2.5 years possessed unique attributes with respect to the indicators of interest in this study, none of which could be considered positive indicators of college success. For example, Sporadic and Part-Time Attendees had the lowest mean cumulative GPA of all the groups, barely enough to stay at the university (\bar{X} = 2.1, sd = .55, Median = 2.1). To further illustrate, 249 (55%) of the students did not have the minimum GPA at the beginning of the fall, 2005 semester required to attend UH without being subject to academic probation or suspension. Sporadic and Part-Time Attendees also tended to have the highest mean cumulative hours of the four USD

⁸ Transfer students tend to be older than FTICs.

groups in this taxonomy ($\bar{X} = 60.8$, $sd = 25.2$, Median = 61.0), but they had the lowest mean semester credit hours attempted at UH during the fall of 2005 ($\bar{X} = 10.1$, $sd = 3.5$, Median = 12.0).

The above indicators hint at the existence of traits associated with this fourth group of students, such as the possible tendency to take fewer hours each semester, the tendency to not do well at coursework and the tendency to persist despite feedback that one is not doing well in school. To further explore these characteristics, a random sample of 13 students was drawn, and a full attendance history was pieced together for these students. The attendance patterns and histories are described in detail in **Appendix B**. These case histories hi-light the same patterns hinted at from the GPA and SCH information presented above (fewer hours attempted a semester and poorer performance in class); but, two additional patterns emerge. First and foremost, these students' college careers tended to be characterized by sporadic attendance and/or periods in which they stopped out of college. Related to the lower GPA, these students also tended to attempt many more hours than they completed.

Difficulty in Meeting Major Requirements: Analysis of Admissions Data

In July of 2008, UH application history was obtained for 3,348 students slated to begin school in the fall of 2008 who had been placed in USD. Upon study of this group, it is clear that many of these students did not initially choose USD as their major of choice. In fact, the majority of these students (79.4%, $n=2,578$) chose an intended major at the time of application to UH. Further, 64.0% ($n=1,659$) of the students in USD with an intended major at the time of application were officially denied access to their first major of choice.

There is some evidence to suggest that students who voluntarily change majors to USD sometime between the time of application and acceptance by UH might be doing so because they learn that denial for entry by the university is inevitable rather than merely becoming undecided about their career path. The top first-choice colleges for USD students who changed majors and who did not have a denial on their admissions record were business (35.3%) and engineering (21.3%), both of which have additional entrance requirements. In sum, while only 64% of students in USD who chose a major at the time of application were officially denied admission to their first choice of major, it is likely that the proportion of students in USD not qualifying for a major is higher; although, the data limits one's ability to do more than draw supposition about what the actual proportion of student would be. Regardless, the data does indicate that a high proportion of students entering USD aspire to be enrolled in majors for which they do not have the necessary prerequisites.

Representation in USD as a Function of Semester Credit Hours Earned

The has been some recent debate about the maximum number of hours that USD students should be allowed to accumulate before being required to declare a major and thus move on from USD

and how any policy could be enforced. The university currently allows students to accumulate 60 hours by policy, but some students do exceed that amount. In fact, between 1999 and 2006, 12% of transfer students on average enter UH with more than 60 semester credit hours.

Using the 2005 cohort, **Table 3** provides an estimate of the number of students potentially impacted by changes in any policies regarding the maximum number of hours allowed while in USD. For example, should the university institute a policy lowering the maximum allowable hours to 45 and to enforce such a policy, roughly 28% of the USD students would become the responsibility of the colleges. The four USD groups under the taxonomy would be impacted differently, however, with 61% of Sporadic and Part-Time Attendees moving over to majors within the colleges. Transfer students and those with previous majors would be reduced by 59% and 44% respectively.

Table 3: Cumulative Hours by USD Group, Fall, 2005 Cohort

	FTIC		Transfer		Had a Major		SAPTA		Total	
	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>	<u>N</u>	<u>%</u>
Missing	0	0%	14	1%	0	0%	6	1%	20	0%
≤ 30 Hours	2,040	83%	203	16%	76	32%	80	17%	2,399	54%
31 to 45 Hours	309	13%	297	24%	57	24%	99	21%	762	17%
46 to 60 Hours	101	4%	328	27%	55	23%	135	29%	619	14%
Over 60 Hours	16	1%	390	32%	49	21%	150	32%	605	14%
Total	2,466	100%	1,232	100%	237	100%	470	100%	4,405	100%

* Students who were identified as FTIC and who had missing cumulative hours were assumed to be new FTIC with no hours posted

Focus Group Content

During the summer of 2008, five focus groups were held for USD students, with approximately 45 students in attendance. Two groups of students were interviewed: students entering USD for the first time and students who had spent one or more semesters in USD. Students were compensated with either a UH t-shirt or lunch.

Convenience sampling was employed for the first-time in USD students, and they were asked to participate during the freshman orientation. The first two focus groups consisting of new USD students yielded no one who was truly undecided about his/her intended career/major. All students interviewed

knew the field in which they wanted to major but were either denied entry or had not completed the additional, necessary requirements to be considered for acceptance (e.g. music, architecture). In general, while many students initially indicated that they did not know why they had been placed in USD, most admitted at some point in the interview that they understood that they did not gain admittance to their college of first choice. The most common majors to which students aspired were engineering, business, architecture and music.

The second set of new USD students was selected for participation after determining from admission stacks that they had not been denied entry into a first major of choice and may truly be undecided about a career path. These groups consisted, in roughly equal proportions, of undecided students and students who were at UH but who intended to transfer to other universities to study health professions (e.g. nursing and dental hygienist training) after completing core courses. In general, this group tended to view USD as a place to obtain core requirements. However, it should be noted that these students' attitudes are unlikely to be representative of USD students, as they were selected through a process of elimination.

The focus group consisting of students who had been in USD for one or more semesters was generated by inviting USD students who were enrolled at UH during the summer session through e-mail and phone calls. In general, this group tended to believe that students should be allowed relatively untethered access to classes and advisors in the majors to which they aspired and tended to suggest programs that would allow them access to professionals in their field or fields of interest who might provide them with information and mentoring.

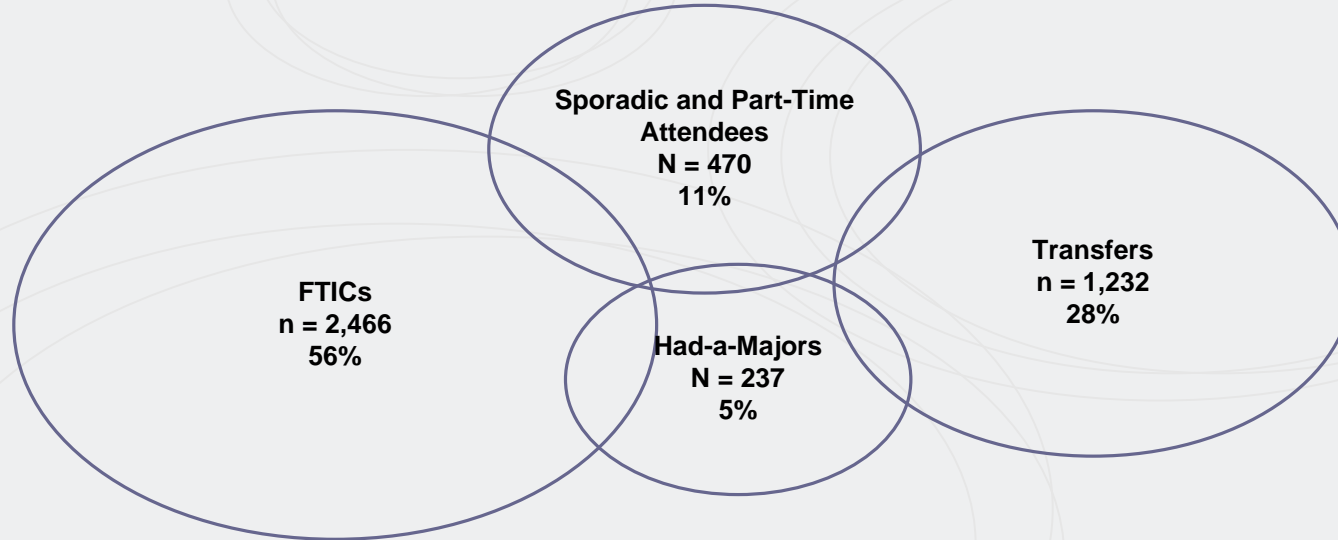
Conclusion

The present study was conducted to assist the USD Task Group in making decisions with respect to reducing the number of students in USD. To this end, a taxonomy was developed to categorize and describe the characteristics of students with an eye on identifying the unique needs of students in USD for longer periods of time. Whenever possible, information about the number and proportion of students in the groups is presented to help the Task Group glean the potential impact of policy initiatives. The study also looked at the career aspirations of USD students through the analysis of admissions data and obtained qualitative data from focus group interviews with new and existing USD students.

This information indicates that many students are not in USD by choice but rather because they did not meet the entrance requirements for a major to which they aspire. The data also indicate that few students are in USD because they have failed out of a major or have changed their minds after being accepted into a major. Additionally, those who have been in USD the longest are characterized by part-time and sporadic attendance, poorer academic performance and more college credits.

Model for Four USD Groups

USD Task Group
April, 2008



Appendix B

Case Histories of Randomly Selected Sporadic Attendees and Difficult Cases

Legend

90	USD
	Not Attending
	Chose Major

Case 1:

Attendance Pattern during observation period:

fall03	spr04	sum04	sum04	fall04	spr05	sum05	sum05	fall05 Cohort	spr06	sum06	fall06
					90			90	90		90

Story:

Student first entered University Studies as a new transfer student to UH in fall of 1999 with 23 credited hours (35 taken) from HCC. Student is still enrolled at UH (registered through fall 2008) in TECH. Current GPA = 2.55. Units Taken Toward GPA = 111. Units Passed Toward GPA = 87.

Case 2:

Attendance Pattern during observation period:

fall03	spr04	sum04	sum04	fall04	spr05	sum05	sum05	fall05 Cohort	spr06	sum06	fall06
	90			90	90			90	65		65

Story:

Student started at UH in **1985** after transferring hours from UH. Stopped out between 1985 and 2004. Now at Tech major with a 2.3 GPA.

Case 3:

Attendance Pattern during observation period:

fall03	spr04	sum04	sum04	fall04	spr05	sum05	sum05	fall05 Cohort	spr06	sum06	fall06
90	90	90	90					90	90	90	90

Story:

Student transferred in fall of 2002 with 27 credits from Dallas CC and 61 from HCC. Enrolled fall 2002 through summer 2007. Student is not currently enrolled but is listed as a CLASS major.

Case 4:

Attendance Pattern during observation period:

fall03	spr04	sum04	sum04	fall04	spr05	sum05	sum05	fall05 Cohort	spr06	sum06	fall06
90				90	90			90	90		90

Story:

Student started at UH in the spring of 2003 as a FTIC. Last semester attended was fall of 2007. Student has 66 units taken toward GPA and 57 passed towards GPA. Current GPA is 2.4, and student is still USD.

Case 5:

Attendance Pattern during observation period:

fall03	spr04	sum04	sum04	fall04	spr05	sum05	sum05	fall05 Cohort	spr06	sum06	fall06
								90	90	90	65

Story:

Student started in fall of 2000 as transfer student with 39 hours transferred from Cisco CC and HCC. Student is still enrolled at UH in Technology and has a cumulative GPA of 2.0.

Case 6:

Attendance Pattern during observation period:

fall03	spr04	sum04	sum04	fall04	spr05	sum05	sum05	fall05 Cohort	spr06	sum06	fall06
90	90			90	90			90	46		

Story:

Student transferred with 6 hrs from Wharton CC in the spring of 2002. She stayed until placed on academic suspension at end of spring 2007. At that time, she had taken 66 units toward GPA and 56 taken which were not counted toward GPA. Her cumulative GPA is 1.9, and the class that put her on academic probation was *Listening to Music* in which she received a D.

Case 7:

Attendance Pattern during observation period:

fall03	spr04	sum04	sum04	fall04	spr05	sum05	sum05	fall05 Cohort	spr06	sum06	fall06
								90	90	46	46

Story:

Student transferred 22 hours from HCC to UH in 1999. Student stopped out from 2000 to 2005. She currently is a CLASS undergraduate with a 3.08 GPA and 95 units attempted and earned toward GPA.

Case 8:

Attendance Pattern during observation period:

fall03	spr04	sum04	sum04	fall04	spr05	sum05	sum05	fall05 Cohort	spr06	sum06	fall06
90	90	90		90	90		90	90	90		46

Story:

Student started at UH as an FTIC in Spring of 2003 in USD. Students attends regularly but part time and has a tendency to withdraw from classes. Current GPA is 2.8 with 107 units towards GPA and 21 units not towards GPA. Student is currently a CLASS major.

Case 9:

Attendance Pattern during observation period:

fall03	spr04	sum04	sum04	fall04	spr05	sum05	sum05	fall05 Cohort	spr06	sum06	fall06
					90			90	90		90

Story:

Student transferred to UH in the fall of 2002 with 26 transfer hours from San Jacinto College. He stopped out after the spring, 2003 semester and returned the spring of 2005. Currently is enrolled as a CLASS UG with 81 units towards GPA and a 2.2 GPA.

Case 10:

Attendance Pattern during observation period:

fall03	spr04	sum04	sum04	fall04	spr05	sum05	sum05	fall05 Cohort	spr06	sum06	fall06
								90	90		90

Story:

Student transferred to UH in the fall of 1999 after logging 30 hours at HCC. The early semesters were characterized by poor grades and withdrawals, and student may have been on probation or suspension (fall 2001 cumulative GPA was .9). Student stopped out after fall, 2001 semester and returned in the fall of 2005. In 2005, student apparently began to take school more seriously. Student

currently is a CLASS undergraduate with a 2.4 GPA and 62 units taken toward GPA, 24 units not taken towards GPA and 56 units passed towards GPA.

Case 11:

Attendance Pattern during observation period:

fall03	spr04	sum04	sum04	fall04	spr05	sum05	sum05	fall05 Cohort	spr06	sum06	fall06
90	90				90			90	90		

Story:

Student transferred to UH in the fall of 2002 with 12 hours from Sam Houston State University and 12 hours from Lone Star CC. Student remained in USD. The last grades posted in PS were for fall of 2005, although student must have registered and stayed long enough to be picked up in spring 2006 ORD. Student’s cumulative GPA is 1.9, and his record has a Dean’s hold placed on it.

Case 12:

Attendance Pattern during observation period:

fall03	spr04	sum04	sum04	fall04	spr05	sum05	sum05	fall05 Cohort	spr06	sum06	fall06
								90			

Story:

Student started at UH as an FTIC in the spring of 2001. Student stopped out after the fall of 2001 and with a cumulative GPA of 1.8 to return in the fall of 2005. Student attended through the fall of 2007 and currently has a 2.1 GPA with 33 hours passed towards GPA. Student is now a CLASS major but has a financial delinquency hold on his record.

Case 13:

Attendance Pattern during observation period:

fall03	spr04	sum04	sum04	fall04	spr05	sum05	sum05	fall05 Cohort	spr06	sum06	fall06
90	90	90	90	90	90			90	65		65

Story:

Student began as FTIC at UH in summer of 2003 with 8 transfer credit hours in the form of military service. Student enrolls regularly but part time. Student is currently a TECH undergraduate with 55 hours towards GPA and a cumulative GPA of 2.2.