This paper was presented at CUMREC '97, The College and University Information Services Conference. It is the intellectual property of the author(s). Permission to print out copies of this paper is granted provided that the copies are not made or distributed for commercial advantage and that the title and authors of the paper appear on the copies. To copy or disseminate otherwise, or to republish in any form, print or electronic, requires written permission from the authors.
News flash! Baylor University has implemented voice response applications! Registration, grades, fee selection and bill inquiry can now be done via the telephone. Okay, okay, so LOTs of other schools have already done that and more. However, this was a traumatic step for a conservative institution used to providing students with much individualized advising and general coddling. This paper will discuss the project less from a technical perspective and more from project and team management perspectives as many areas of the University were led to question established policies, work together towards a revolutionary common goal and integrate web-based access to legacy systems into previously paper driven processes.
Just what kind of place is Baylor University?

Baylor University, founded in 1845, is located deep in the heart of Texas in Waco, a city of 100,000. The school has approximately 12,000 students and 1500 faculty and staff. This includes a Law School considered one of the best in the state and a Nursing School housed in Dallas. Baylor primarily emphasizes the undergraduate learning experience as opposed to graduate programs and faculty research. Also, Baylor maintains a close affiliation with the Baptist General Convention of Texas and is committed to providing the finest possible education within a Christian environment. The students are mostly from Texas, about fifty-five percent female and now just under fifty percent Baptist (which kind of invalidates this paper's cute title). The annual university education and general budget is currently $128.5 million. In the extra-curricular area, Baylor is the only private school member of the new Big Twelve athletic conference. So, essentially, this University is a respected, medium-sized, private institution with a denominational affiliation, a loyal alumni body, a dedicated body of faculty and staff and, as of April, 1996, dancing on campus.

Who's minding the computers and what are they doing with them?

At Baylor, the Center for Computing and Information Systems (CCIS) is minding them. This organization is headed by a director and is organized into seven sections - instructional computing, student computing services, information systems, workstation systems, computing services, communications and a microcomputer store. The managers of these sections, along with the director, compose the CCIS Management Staff. Until mid-1996, within the campus organizational structure, CCIS had reported for many years to the Vice President and Chief Operating Officer for Administration. When the person holding that position left the University, a search began for a Financial Vice President to which CCIS would report. At the time of this writing, that search is still continuing and in the interim CCIS reports to the Vice President for Human Resources and Planning. The University has a computing budget of around five million dollars. There are approximately 70 total staff in the CCIS sections to support the University's information technology needs.

Baylor is a predominantly Macintosh environment. There are about 2300 Macs and 500 IBM PCs/ clones across campus. The vast majority of faculty and staff have a workstation on their desks. Dial-in access to the campus network is supported by CCIS for employees. Negotiations are nearing completion for a third party solution for student dial-in services. Wiring of the on-campus dormitories for data and video began last summer. Due to booking of the dorms for various summer programs, only a limited number of rooms were completed in 1996. This project will extend over the next several summers.

Administrative information systems are packages purchased from well-known vendors of higher education software that run in either the IBM MVS/ CICS environment using DB2 or the IBM AIX environment using Oracle. The programming language of choice is still mostly COBOL, with some C, FOCUS and SQL scripts thrown into the mix. Students have real time inquiry access to their personal information through a Baylor-developed GUI application called Student Stuff. This is available on Macintoshes in all general access campus computing labs as well as on numerous Mac e-mail stations throughout campus. Over the last year, programming effort has been directed toward creating World Wide Web applications that give access to legacy systems. The first of these, ChairSIS, was released in early 1996 and gives academic department
chairs the ability to view class, student and applicant information and to update the instructor and maximum seats for a class.

Why phone registration now, at this late date?

Many other schools, large and small, long ago implemented telephone registration and other voice response applications. But not Baylor. There are a number of reasons for this. Baylor's schools and colleges operate as autonomous units and therefore, each can (and have) set their own regulations regarding advisement and registration requirements. This heterogeneity of rules made no one anxious to try to computerize the manual processes in place. Also, Baylor, being a private, religious-affiliated institution, has taken pride in providing a personal touch through one-on-one, person-to-person advisement and registration. Telephone registration seemed too impersonal to some administrators; or it was feared it might appear that way to students and parents. Also, far too many refunds or course substitution waivers were already given when students inadvertently took the "wrong" class even in an environment with much required advising, stamped paper advisor's slips and registration by trained office staff. It was a concern that the number of these actions might increase even more without the manual safeguards currently in place.

In addition to the above reasons for reluctance, many staff, particularly in CCIS, felt the University should proceed straight to allowing students to register themselves on-line and skip the voice response step. However, this position was countered with the argument that, while on-line registration should also be planned, many students still do not have personal computers and modems in their various places of residence, but they have telephones at all of their homes. The current and previous two student body presidents had made bringing telephone registration to campus a major part of their platform. And a new, younger, student-oriented University president was inaugurated in May of 1995 and he quickly indicated support for voice applications. Finally, the issue was forced when the Board of Regents got involved. They were tired of hearing that most of Baylor's regional competitors had telephone registration while we did not. At a summer, 1995, meeting of the Regents, one of the more vocal members theatrically got down on his knees and "begged" a Baylor vice president to implement telephone registration for the student body.

In July, 1995, CCIS staff were charged with studying the technical options for this new project. The key item was telephone registration but capabilities for additional voice response applications were also needed. The goal was to have a test group register via the telephone that fall during early registration for the spring '96 semester. (This target was soon deferred by one term and thus became more realistic.) Several different system options were reviewed, including one that was very low cost to the University but required students to listen to advertisements when they called. The final recommendation from CCIS to our vice president was what we believed to be the safest choice given the expectations of a rapid implementation - purchase of the voice response software from our student system vendor and purchase of the hardware from the company used by most of that SIS vendor's customers.

What kind of group could pull this off?

Introducing this type of radical enhancement into the inflexible, manual, "always been that way" process of student registration at Baylor would require a group of motivated people who could come together and create a synergy of efforts to achieve success. Certain abilities would be critical, including creative problem solving, effective communication, change management and conflict resolution. In early October, 1995, the Vice President and Chief Operating Officer for Administration appointed a task force and charged them with a fast track implementation of telephone registration as the first voice response application which would allow eligible students to register via the system beginning in March, 1996. The task force was
chaired by this author. Other members were the University Registrar, an Associate Registrar, the Director of Academic Advisement, the student body Vice President, the CCIS Associate Director for Communications, an Information Systems senior analyst/programmer, an associate professor from the Biology Department and the Assistant Vice President for Organizational Development. By the time of the group's first meeting, the system hardware had been delivered, installation was scheduled and the application software had been loaded for testing. We were ready to get started!

What's in a name? Or a number for that matter?

The Telephone Registration Implementation Task Force began meeting immediately and had to start making decisions pretty quickly as well. Some of these decisions were fun and fairly non-stressful, like selecting a professional voice to use for recording of system messages. (A female who was the hardware vendor's most often used voice was chosen.) Another enjoyable, though slightly more stressful, decision required early in the project was that of selecting a name for this system. We felt it should be catchy and something students, faculty and staff would remember. We looked at names other schools had used and each committee member contributed ideas from his or her staff. Some of the creative suggestions were

- the BEAR
- BearTel
- BearTalk
- BearTouch
- BearLine/BEARLine
- BEAST
- BLINK
- RAPTOR
- TERMINATOR
- TGOBL
- and finally...
- TURD

Baylor's Easy Access Registration
Baylor's Easy Access to Registration
Baylor Easy Access Services by Telephone
Baylor Line Killer
Radical Approach to Online Registration
Telephony-based Registration Methodology is Now Available To Our Registrants
That Good Old Baylor Line (Baylor's school song name)
Touchtone User Registration Device (We may dance now, but this still wouldn't fly!)

After much discussion, review and surveys in student classes, the committee settled on the name BEARLine. We then began marketing the project by this name and using it to prepare the client community for its coming. However, as Publilius Syrus said, "It is a bad plan that admits of no modification." After a month of using the name BEARLine, we discovered that there already was a BearLine on campus in the Office of Student Activities. It was a telephone number used to relay to students information about upcoming activities. So...back to the drawing board we went. This time we narrowed down the choices and asked the student member of the team to take the options to Student Government. She did this and the winner was

BearTouch

Another early issue involved selection of the telephone number for the system and really, the whole telephone line and load situation. The Registrar's Office staff were very interested in having a number with an extension that spelled out something, like BEAR or BUBT (Baylor University BearTouch). The CCIS Associate Director for Communications spent much time on his phone consulting with other institutions who had implemented voice response...
applications and with Baylor's local Southwestern Bell representatives to determine the best way to proceed. Ultimately, he decided to take 24 of Baylor's 131 in-dial lines (Baylor's telephone switch is under his management.) and dedicate them strictly to BearTouch. And, unfortunately, the number selected did not spell out anything meaningful.

But we've always done it that way.

Breaking with tradition at an institution like Baylor is difficult. Early in the work of the committee, it became clear that the success of this voice response project was not going to depend on the technology as much as on getting the campus academic community to re-think long established procedures related to advisement. Most departments required their students to be advised before registering. This was enforced by the use of paper forms that were signed by advisors and stamped with official departmental stamps. Registration staff then manually inspected the form for the proper authorization before allowing the students to register and the forms were filed and kept in the Registrar's Office. As the BearTouch task force discussed ways to implement and enforce advising controls within BearTouch for those departments that decided to continue to require mandatory advising, the Biology associate professor in the group relayed concerns. His chairman had indicated that while it was imperative that their students still be advised, there was no way their department had the staff resources to log into SIS for each student they saw and update the system that the individual had been advised for the term in registration. This updating would be necessary to clear the student to use BearTouch to register. However, if the students still had to bring a paper advisor's slip to the Registrar's Office so that someone there could clear them in SIS, how was telephone registration helping the student? He or she might as well go through the same old process as before in the Registrar's Office.

Realizing that the committee was encountering issues, involving the academic community, which we did not have the authority to resolve, we sought additional help. The vice president who appointed the original committee supplied an additional member - the Vice Provost for Academic Affairs. This person gave the group more clout within the academic arena and she was able to address academic issues with more authority. This provided the support needed as we asked these departments to think outside their established procedures regarding implementing voice response in as student-friendly a manner as possible.

Who wants to go first?

Shortly after the task force began work, in the fall of 1995, approval was received to "pilot" telephone registration the next spring with a limited set of students rather than starting with the entire student body. The desire was to get a test group that would be representative of as many different situations as feasible. Some areas approached refused to take part, wanting to wait until the "bugs" were out of the system. (Like that ever happens!) Notably, the Biology department (represented on the committee) and the School of Engineering and Computer Science (the technology departments) declined. However, utilizing the powerful persuasion skills of some of the committee, we were able to enlist the Schools of Education and Business and the Departments of Sociology and Psychology to take part in the first use of BearTouch for registration.

By the time the piloting departments were decided, it was late December. The telephone registration period would open in early March. The eligible pilot group included approximately 2200 students. We now had to inform this group that they would have the opportunity to use BearTouch in the spring and had to explain to them how to use it. The task force decided that one mailing, containing all pertinent information and instructions, would be targeted for early February.
CCIS and the Registrar’s Office staff had been working on designing a registration worksheet and accompanying instructions. With much input from the committee and student focus groups, we finalized these documents as well as a BearTouch invitation letter. Because we were just piloting telephone registration, and not the voice billing module, we had to provide a way for the test group of students to select optional fees they would normally indicate during in-person registration. These optional fees included meal plans, vehicle registration and computer lab print charges. The Cashier’s Office designed and had printed colorful forms on which students could select these options for the summer and fall. By the time we were ready to mail everything to our test group of students, the packet to them included:

- an invitation/information letter from the University Registrar [Appendix A],
- a BearTouch early registration schedule,
- a BearTouch instruction sheet,
- a registration worksheet,
- a green Financial Data Form to select optional fees for the summer terms,
- a gold Financial Data Form to select optional fees for the fall term,
- a return envelope for the Financial Data Forms.

After getting the copies made, ordering envelopes and working through who was going to pay for the copies, envelopes and postage expenses, we staged a big stuffing event. On Tuesday, February 13, five of our committee members met in the Student Government Offices and worked throughout the day with various members of student government to collate, stuff and put mailing labels on 2200 envelopes. By the time we got to the bottom of the stacks of documents (around 4:00 p.m.), every one was glad the pilot group had not been any larger.

**What's the secret code word?**

The key to BearTouch registration is student ID (social security number) and personal identification number (PIN). Much discussion and some contention took place in our committee meetings concerning how the PIN field should be initialized. None of Baylor's previously implemented systems required PIN, so it had not been an issue before this. The task force members from the Registrar’s Office were committed to using month, day and year of the birth date as an initial value in the six character field. They wanted a value students could remember both for the students' sakes and to limit phone calls to the office from those who had forgotten their PIN. These staff checked with numerous other institutions, almost all of which were using birth date with few, if any, reported problems. However, others on the committee were concerned that many people could have access to a student's social security number and birth date, including parents, employers and the many staff on campus with the ability to query the SIS demographic screens. There was not a great fear of misuse, or unapproved access, within the registration process, but as BearTouch was expanded to include more sensitive data in the voice grading and financial aid applications, the risk would become more serious.

After a great deal of discussion in several committee sessions and a meeting with the University General Counsel, a consensus was reached that birth date would be used as the initial assigned PIN value. This agreement was reached with the understanding that three things would occur:

1. Students would be provided a way to change their PINs electronically.
2. Strong warnings would be included in the BearTouch instructions that the PIN should be changed. The current wording of this warning is “Unless you change your PIN, someone who knows both your student ID and birth date may gain access to your student records through BearTouch without your consent.”
3. BearTouch would be modified to verbally speak a warning message to the caller if the PIN was still equal to birth date.
What's happening on the computer side?

Throughout the weeks of late 1995 and early 1996, while the pilot group was being selected, the system name decided, vendor software training given and the usage instructions written, much technical support work was going on in CCIS. The final hardware configuration was completed with that vendor. The application programs from our SIS vendor were installed in our production SIS. Course call numbers (required to access classes via the telephone) were added to all downloads of semester class schedules, including the one used to create the official printed class schedule. Vendor application software was modified to allow for several new fields that would be used to enforce advising requirements and to allow for the speaking of specific messages about holds on student records. A new on-line screen was added to SIS for the Registrar's Office to show these additional fields. Batch programs were written to load birth date into the PIN field, to set the new advisement fields based on student classification and academic program and to print various supporting reports. The standard delivered vocabulary was reviewed and updated with Registrar's Office staff and the committee. CCIS staff then loaded recordings from the hardware vendor that included our Baylor-specific modifications.

The Student Stuff application [Appendix C] that gives students query access to their SIS data from campus labs was updated to show a student all his/her holds that would affect registration and to allow students to update their PINs. A message, approved by the committee, was added to all displays of student schedules, both in Student Stuff and in SIS, to remind students about the importance of completing course prerequisites. The telephone registration system and SIS does basic prerequisite checking but none of the complex algorithms sometimes required. And students can pass prerequisite checking by current enrollment but end up not successfully complete the current class. The message approved was

Continued enrollment in scheduled classes is dependent on your successful completion of all prerequisites.

One of the biggest tasks on the technical side was to provide an easy, client-friendly way for academic advisors to make updates to SIS that would enable efficient and hassle-free student use of BearTouch. Several pieces of information that had previously been indicated to registration staff on paper forms would somehow have to be done electronically within the departments. Advisors in departments requiring advisement would have to clear the students in SIS after advising them so that BearTouch would let them register. Also, some classes are regularly set up requiring departmental approval before enrollment is allowed. Now, the departments would need to have a means to permit individual students into these classes. Finally, in the event that a department was willing to waive a prerequisite for a particular student, that information would need to be entered before the student could successfully register via BearTouch.

To provide this functionality to the campus, CCIS staff created an application called BearTouch Stuff. (We do lots of stuff around here!) A prototype, which only allowed for indicating a student had been advised, was implemented during our pilot period for the Department of Sociology, the only piloting department with required advisement. This prototype version was built with a GUI tool set for the Macintosh and was used by the primary advisor in the Sociology Department, a very patient man. Permits and waivers were still handled manually with paper forms during the test semester. With input from our Sociology guinea pig and from the Registrar's Office staff, BearTouch Stuff was re-born during the summer of 1996 as a Kerberized Web application that directly updates SIS on our IBM mainframe in real time. Access is secured by user network ID and password, course prefix and student major code. Nine training sessions for groups of twelve were conducted for academic personnel by the Associate Registrar on our committee as we geared up for greatly expanded use of BearTouch in the fall of 1996. Feedback on this new Web application has been very
positive, surprisingly so given the previous reluctance of some faculty to take part in any electronic updating of data.

Do they like us? Do they really like us?

As our committee worked to get BearTouch ready for the spring, 1996, system test, we discussed the need to get feedback from the students involved in the test. Three committee members consulted with the Assistant Vice President for Institutional Research and Testing about design of an assessment survey. Afterward, with input from all the committee, our Assistant Vice President for Organizational Development member continued to work with Institutional Research to create the survey [Appendix B]. We debated the best way to get the greatest survey participation. Should we mail the surveys to the students' local addresses? Should we do a telephone survey? Ultimately, we decided to visit classes in each of our four piloting schools and departments and conduct the surveys in person. Faculty within those areas were very generous and accommodating in allowing us to take 10 minutes at the start of a class. Surveying was done at the end of April, to get feedback while the experience was relatively fresh and before students left town at the semester's end.

Even though only 750 of the potential 2200 students actually used BearTouch during the test semester, the results of the survey were very interesting and gratifying. One of the most unusual set of results was that 94% of the respondents felt the worksheet instructions were clear even though 68% said they did not read the instructions and complete the worksheet before calling! The survey showed that most of the students called from off campus, primarily called on Mondays and Tuesdays and were able to register the first time they called. 71% of those surveyed were satisfied or very satisfied with BearTouch as opposed to 19% who felt that way about the previous registration process in the Registrar's Office. The main reported reason more of the 2200 students did not use BearTouch was that we did not provide a method during this pilot period for Dean's List and Honors students to register early via the telephone. Therefore, most of these students went through the old registration procedure during the special early priority registration days for students in these categories.

Here are just a sampling of the written comments from the surveys:

• Needs to speak a little faster. Speaks too slow.
• I think it was very efficient. It only took me about 8 minutes to register for Summers I & II and Fall.
• It was so fast & easy. We are probably one of the last schools in Texas getting phone registration. I love it!
• In any service, I like to speak with a human. Phone registration will only be acceptable to me when we have a live person on your end.
• The only problem I had was that I wanted to register for both summer terms & the fall. In order to do this, I had to call three times.
• I was very pleased - good that it was open on weekends. Y'all should definitely use it again! Very easy to use & made registration MUCH easier!!!
• The more hours it is available, the better. Can it be open 24 hours a day?
• It's about time.

And so on and so on.

After completion of the pilot semester, several major additions to BearTouch took place. The voice billing module was implemented for Fall '96, full campus usage so that students would be able to select optional fees and hear their current balance. This process required software installation, training by the vendor, message recording and some Baylor-specific system modifications. The full BearTouch instructions and registration worksheet were
included in the Fall '96 Schedule of Classes (No stuffing envelopes for a separate mailing any more!) and were also put on the Baylor Web pages for easy student access and to allow updates as changes occurred. The voice grading module was investigated and installed. This required system modifications to speak not only grades, but semester and cumulative GPA and hours as well. These additions provide all the information currently shown on the printed grade mailers. Voice grading will be available beginning in December, 1996.

One consequence of implementing telephone registration and losing the opportunity to have all students physically appear in one office each semester was losing our established method of capturing student personal information. As each student came to the Registrar's Office to register, s/he received a Personal Data Form pre-filled with current information. The student updated the form and left it for later data entry into SIS. After a brainstorming meeting, our committee began a multi-pronged attack to get students to notify the appropriate office of changes in their information, especially address changes. Colorful flyers were printed, posted around campus and distributed to students coming through financial settlement the week before fall classes began. These flyers reminded students of the importance of updating their data if they wanted the printed directory to be correct so that their friends could locate them. We posted a similar message as the "Message of the Day" in campus computer labs which displayed as a student turned on a computer. A good number of students heeded the alert and e-mailed or physically brought in address changes. However, we are continuing to review ways to capture updated information and will probably target the invoice as a place to show current data and ask for changes.

A little learning is a dangerous thing. - Alexander Pope

As we look back on the last year, we can point to a number of things learned about project and people management through the BearTouch implementation experience at Baylor. These would surely translate to most university-wide projects.

Have support from the top. If it's not there, seek it out. This is a well-known maxim and certainly true. In our case, when we began meeting resistance to the project from the academic departments, our sponsoring vice president got approval for a high level administrator from the academic side of the house to join the committee.

Exploit the expertise of every team member to the fullest extent. Every member of our task force contributed to the project's success. Specifically, we utilized the excellent organization skills of the senior analyst/programmer, the connections to Student Government, and students in general, of the student member, the knowledge of the advisement process of our faculty member and the Director of Academic Advisement, the exceptional communication ability and empathy with the students of the Associate Registrar, the political influence with academic department chairs of the Registrar and the Assistant Vice President for Organizational Development's knowledge of planning and service improvement methods.

Be flexible: don't be too upset by setbacks - expect them. We really liked the name BEARLine and had begun creating updates for the campus and system documentation using that label. But it was back to the drawing board when we discovered that name was taken. Also, another unexpected "opportunity" occurred when the senior analyst/programmer who had implemented much of the technical side of BearTouch resigned to pursue a Ph.D. at another institution during the summer after the pilot semester. However, in large part due to her organization, documentation and training skills, the project was ably assumed by another CCIS analyst/programmer who went on to implement the voice billing and grading modules.

Expect unplanned benefits, as well. An unanticipated plus from this project was the change in production of the printed class schedule. This had previously been printed by Baylor and students were charged $1.00 for a schedule at the campus bookstore. As a part of the BearTouch project, we were able to get approval to bring in an outside company to sell advertisements to local merchants and produce the schedule at no cost to the University or the students.

Allow disagreement but seek consensus. The issue of initialization of the PIN to birth date generated some real concerns within our committee that took considerable discussion and solicitation of other opinions before an agreement was reached. But everyone felt like they were a part of the solution.

Don't try to do the impossible. This will doom the project from the start. Our administration and student body president really wanted telephone registration to be available for all students in the spring of 1996. But the project team insisted on beginning with a pilot group. Some of the small problems we encountered during that first term might have been major problems if we had been dealing with the entire student body.

Continual communication is essential. Besides constant e-mails among the task force, we made an effort to talk about BearTouch to everyone who would listen. Multiple demonstrations were conducted for the Board of Regents, as well as verbal progress reports given. Each academic department was contacted. A report and demonstration was given to the President's Coordinating Council, a group of top University administrators. Articles were included in the CCIS newsletter. Student Government was very involved. And the student newspaper included articles and editorials throughout the project to help us publicize the system.

All good things must come to an end.

THE END
Appendix A
Letter to BearTouch Test Group

Dear Baylor Student:

Congratulations! You have been selected to use telephone registration this spring as you register for the 1996 Summer and Fall terms. For your convenience, an Early Registration Schedule is enclosed. Students will register according to classification and last name, beginning March 18. You may register on, but not before your scheduled day. You may also register on open days and week-ends following your scheduled day. After the five-week early registration period, you will be able to telephone daily until the day before classes begin. (Please refer to the enclosed Early Registration Schedule for more details.) BearTouch hours will be:

8:00 a.m. - 8:00 p.m., Monday - Friday

and

8:00 a.m. Saturday - 2:00 p.m. Sunday

The Summer and Fall, 1996 Schedule of Classes will be available in the Baylor Book Store beginning February 15. It is necessary that you have a listing of courses before registering in order that you know the course call number of each course in which you plan to enroll.

Sophomore, junior, and senior business, education, psychology, and sociology majors can register by telephone this spring. The table below indicates whether or not you must schedule an advisement appointment before using BearTouch.

<table>
<thead>
<tr>
<th>Group</th>
<th>See for Advising</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sophomore, junior, senior education majors</td>
<td>School of Education</td>
</tr>
<tr>
<td>Sophomore sociology &amp; psychology majors</td>
<td>Office of Academic Advisement</td>
</tr>
<tr>
<td>Junior, senior sociology majors</td>
<td>Sociology Department</td>
</tr>
<tr>
<td>Junior, senior psychology majors</td>
<td>Advising not required</td>
</tr>
<tr>
<td>Sophomore, junior, senior business majors</td>
<td>Advising not required</td>
</tr>
<tr>
<td>Honors Program students</td>
<td>Honors Program Office in addition to any above</td>
</tr>
</tbody>
</table>

If you are required to be advised, a field must be updated in the BearTouch computer by your advising school/department before you will be eligible to register by telephone.

Holds on your records by various campus offices will prevent you from registering by telephone. Please resolve any holds that you may have before calling. You can check for holds on your records through the Student Stuff application on Macintoshes in all general access campus computer labs.

Please read the enclosed instructions and complete the accompanying worksheet prior to registering by telephone. The worksheet is for your use when you call so that you
can complete your registration efficiently. Be sure to list alternate courses to substitute for ones that you are unable to schedule.

BearTouch will give you a series of voice instructions throughout each step of the telephone registration process. If a class is closed or cancelled, BearTouch will suggest a possible alternate section if one is available.

- over -
Appendix A (continued)

A registration invoice will not be mailed to students selecting class after the following dates:

- **SUMMER I**: May 2, 1996
- **SUMMER II**: June 7, 1996
- **FALL**: July 19, 1996

Students must complete financial settlement with the Cashier’s Office prior to the first day of classes to avoid a late payment fee. Failure to complete financial settlement by the fourth class day of each summer term or by the ninth class day of the fall semester will result in the cancellation of your class schedule.

The enclosed **Financial Data Form** (FDF) must be completed for each term if the following options are desired:

- Meal Plan
- Parking Decal
- Business School Computer Lab Printer Fee
- Invoice Mailing Designation other than Permanent

Address
For this information to appear on the registration invoice(s), the FDFs must be returned to the Cashier's Office postmarked by the following dates:

- **SUMMER I**: April 19, 1996
- **SUMMER II**: May 24, 1996
- **FALL**: July 5, 1996

If the FDF is postmarked after these dates, you must make the financial adjustments to the invoiced balance due and submit the revised amount with your registration payment. Invoice address changes cannot be honored after the cut-off dates. If you have any questions, please contact the Cashier's Office at (817) 755-2311.

It is critical that certain data be kept current in the University's computerized information resources. Please review your current addresses and degree expected term through the Student Stuff application available on Macintoshes in all general access campus computer labs. E-mail any updates to AcademicRecords_Office@baylor.edu.

We are very excited about being able to offer this service to you. We believe that you will benefit tremendously from the convenience and immediate response the system will provide. Your input will be a valuable contribution to the further refinement of telephone registration at Baylor. An assessment survey will be mailed to you in late spring. Please complete and return it so that we may consider your comments in improving the process. Thank you for assisting us by your participation. You will be a pioneer in telephone registration at Baylor University!

Sincerely,

Madelyn G. Jones
University Registrar

Encls.: Cashier’s Form
       Early Registration Schedule
       Instructions
       Worksheet
Appendix B
Baylor University
Telephone Registration Satisfaction Survey

Please answer the questions below regarding your satisfaction with the telephone registration system.
Use a No. 2 pencil only.

1.a. Did you see an advisor prior to registering by telephone?  [ ] Yes  [ ] No
   b. If yes, were you REQUIRED to see an advisor prior to registering?  [ ] Yes  [ ] No

2. Did you read the worksheet instructions & complete the worksheet before calling in to register?  [ ] Yes  [ ] No

3.a. Were the worksheet instructions clear?  [ ] Yes  [ ] No
   b. If no, what could be done to make them more clear?

4. What day of the week did you register by telephone?
   [ ] Sunday  [ ] Monday  [ ] Tuesday  [ ] Wednesday  [ ] Thursday  [ ] Friday  [ ] Saturday

5. What time of day did you register by telephone?
   ___________________________ a.m.  ___________________________ p.m.

6. How many calls did you make before you were able to access the registration system?
   [ ] 1 call  [ ] 2 calls  [ ] 3 calls  [ ] 4 calls or more

7.a. Were you allowed to register the first time you called?  [ ] Yes  [ ] No
   b. If no, why not?  (Check all that apply)
      [ ] Advisor's flag not cleared
      [ ] Attempted to register at the wrong time
      [ ] Status does not allow me to use telephone registration
      [ ] Could not remember PIN
      [ ] Hold from Cashier's Office
      [ ] Hold from Financial Aid Office
      [ ] Hold from Admissions Office
      [ ] Hold from the Bookstore
      [ ] Hold from the Health Center
      [ ] Hold from Office of Student Development & Services
      [ ] Hold from the Records Office

8.a. Were the voice instructions and responses on the phone helpful?  [ ] Yes  [ ] No
   b. If no, what would have made them more helpful?

9. Were you ever disconnected by the computer before you completed registration?  [ ] Yes  [ ] No

10.a. Was the time for telephone registration convenient?  [ ] Yes  [ ] No
    b. If no, what times would have been more convenient for you?
11.a. Did you get the classes you requested?  [ ] Yes  [ ] No
   
   b. If no, why not?

12. Were any of the classes you requested closed?  [ ] Yes  [ ] No
   (OVER)
Appendix B (continued)
Baylor University
Telephone Registration Satisfaction Survey

13.a. Did you have to visit the Office of the Registrar or your major department (other than for advisement) in order to complete your registration?  [ ] Yes  [ ] No
   
   b. If yes, why?

14.a. Did you verify your schedule after completing telephone registration?  [ ] Yes  [ ] No
   
   b. If yes, how did you verify it?
   [ ] Printout in one of the labs?
   [ ] Printout from the Records Office?
   [ ] By telephone?

   c. If no, why not?

15. Please indicate how you accessed this service. (Choose one.)
   [ ] From a dorm phone.  [ ] Local call off campus.  [ ] Long distance call off campus

On a scale of 1 - 5, with 5 being the "most satisfied" and 1 being the "least satisfied,"

16. What is your general level of satisfaction with the telephone registration system?

   Least Satisfied  Most Satisfied
   [ ] 1          [ ] 2          [ ] 3          [ ] 4          [ ] 5

17. What is your general level of satisfaction with the past registration system held in the Office of the Registrar?

   Least Satisfied  Most Satisfied
   [ ] 1          [ ] 2          [ ] 3          [ ] 4          [ ] 5

18. What is your classification?  [ ] Sophomore  [ ] Junior  [ ] Senior

19. What is your major?  [ ] Business  [ ] Education  [ ] Neuroscience  [ ] Psychology  [ ] Sociology

Please feel free to make any other comments or suggestions that would be helpful in planning telephone registration or registration in general in the future.
Appendix C
Baylor University Student Stuff
Student Access Application Main Menu