Karen Thornton, University of Maryland
Karen Thornton has more than twenty years experience working as an educator and mentor in two industries, first music performance where she was an artist entrepreneur, and now by supporting young entrepreneurs. She was the program director the University of Maryland’s (UM) award-winning Hinman Campus Entrepreneurship Opportunities (CEOs) Program from its launch in fall of 2000 until December 2006. Karen is currently directing the new Hillman Entrepreneurs Program that is a partnership between UM and Prince George’s Community College and she spends her time developing the program at UM since its launch in fall 2007. Karen also manages a variety of educational activities and strategic entrepreneurship initiatives within the Clark School of Engineering. Karen has professional experience in both human resources and negotiation. She has earned the BM and MM from Florida State University, ARCM from the Royal College of Music, London, and an MBA from the University of Maryland. She taught at Jacksonville University (FL), and Towson University for a total of fifteen years. She was a Fulbright Scholar, was awarded the Gold Medal of Honor of the St. Petersburg Conservatory and was recently inducted into Omicron Delta Kappa National Leadership Society.

Jacqueline Rogers, University of Maryland (Retired)
Jacqueline H. Rogers is a Senior Fellow at the School of Public Policy, where she has taught housing, community development, military family housing privatization and finance since 1987. Between 1987 and January, 1995 she served as Secretary of the Maryland Department of Housing and Community Development (DHCD) under Governor William Donald Schaefer. DHCD administers the housing, community development and historical and cultural programs of the State of Maryland. Ms. Rogers oversaw a budget of $123 million, annual loan and insurance activity of between $300 and $400 million, and 419 employees.

Prior to her appointment as a cabinet secretary, Jacqueline served the government of Montgomery County, Maryland for 15 years in a variety of positions. Between 1980 and 1987, she directed the Montgomery County Office of Management and Budget overseeing capital programs, operating budgets and central computer services. Earlier service included a stint as an environmental planner and four years of housing and community development work, including the position of Director, Department of Housing and Community Development.

Ms. Rogers, holds a Ph.D. from Yale University. She has served on numerous state commissions, including the 2020 Commission, the work of which led to the State Growth and Resource Protection Act of 1992. In 1994, Ms. Rogers served on the National Academy of Public Administration (NAPA) Panel reviewing the internal operations of HUD. In 1996 she became a NAPA Fellow.

Currently, she is lead instructor for two Executive Programs for the Army designed to support family housing privatization as well as a program for the Air Force which focuses on Asset Management for privatized housing.

Nathan Myers, University of Maryland
Nathan Myers is a graduate assistant with the University of Maryland's Office of Executive Programs (OEP), where he has helped to develop an ongoing evaluation of the Hillman Entrepreneurs Program. He is concurrently pursuing a master's in public policy at the University of Maryland's School of Public Policy, and his graduate studies have focused on critical issues of social policy, such as K-12 education reform, higher education policy, and child and family welfare.

Prior to attending the University of Maryland, Nathan spent seven years working as a secondary
school English teacher and reading specialist in the Pennsylvania, Maryland, and District of Columbia public schools. He has also interned with the U.S. Government Accountability Office (GAO) and the National Human Services Assembly, a coalition of human service organizations based in Washington, DC.

Nathan holds a B.A. in English Literature from Swarthmore College and an M.Ed. from the University of Pennsylvania's Graduate School of Education.

Monica Neukomm, University of Maryland

Monica Neukomm is pursuing a master's in public policy at the University of Maryland's School of Public Policy with a focus on energy security and global climate change issues. She also works as a graduate assistant with the University of Maryland's Office of Executive Programs (OEP), as an evaluator of the Hillman Entrepreneurs Program.

Prior to attending the University of Maryland, Monica spent two years teaching fourth grade in Baltimore as a Teach for America corps member. After her teaching commitment, she moved to the American Institutes for Research where she worked with Department of Education clients on several research and evaluation projects.

Monica holds a B.A. in Business Administration from the University of Oregon.
HILLMAN ENTREPRENEURS PROGRAM - CHALLENGES, IMPACT ON A DIVERSE POPULATION, AND EARLY OUTCOMES

Abstract

The University of Maryland (UM), Prince George’s Community College (PGCC), and a generous donor and community stakeholder, the David H. and Suzanne D. Hillman Family Foundation, have partnered to create the Hillman Entrepreneurs Program. This innovative program identifies non-traditional students with demonstrated entrepreneurial aptitude and supports them with mentoring, tuition assistance, and rich social and educational programming designed to develop these students into successful entrepreneurs and community leaders. Students may pursue any academic major with the goal of completing a bachelor’s degree at UM after earning their associate’s degree at PGCC. Thus far, students are engaged in a diverse set of studies, representing interests ranging from the sciences to education. At PGCC the program is housed in the business division, and at UM the Maryland Technology Enterprise Institute (MTECH), a unit in the Clark School of Engineering, manages the program. Being housed in both a business and engineering department offers students a collaborative and broad perspective toward entrepreneurship that combines the two departments’ strengths.

This program can already point to many successes, but there have been programmatic shifts to adjust for lessons learned about the depth of some students’ challenges – and the challenges involved in developing a new model for entrepreneurship education.

This paper addresses program experiences and lessons learned in five critical areas:

- Screening and selection of Hillman Entrepreneurs;
- The transfer process;
- Building community;
- Adaptation and documentation;
- Leveraging resources.

Its intent is to provide insight for other educators seeking to create durable bridges between community colleges and major public universities.

Introduction

The Hillman Entrepreneurs Program is an innovative educational initiative that provides a platform of experiences and support designed to help promising entrepreneurs develop their entrepreneurial skills, earn a four-year college degree, and start or lead a business. The program model is targeted to students who have not necessarily been high performers academically, but who show signs of success and demonstrate entrepreneurial drive.

In Fall 2006, an Advisory Board was formed to facilitate communications between the institutions contributing to the Hillman Entrepreneurs and to provide guidance and oversight regarding the program’s implementation. The Advisory Board comprises the daughter of the donors and three representatives of each institution: the Program Director from each institution, a
development director from each institution, the Dean of Business at PGCC and a Senior Fellow from the School of Public Policy at UM. The Senior Fellow also oversees the program evaluation conducted by two of her Master of Public Policy Graduate Assistants, who are funded by David Hillman.

The Hillman Family Foundation pledged $1.7 million to build an entrepreneurship, leadership, and scholarship program. This gift is funding a pilot that will be evaluated at the end of year three for a determination regarding whether to extend the program to other community colleges with additional funding, or to end the support. Regardless of the outcome of the evaluation, the donor has committed to fund scholarship support for anyone admitted during the pilot, through graduation from UM. The first of four admission groups currently participating in the three-year pilot program was selected in Fall 2006. Students in each of the groups will receive mentoring, academic training, internship opportunities, and four years of scholarship support. Although the initial program design contemplated scholarship funding of up to 2/3 of tuition at each institution, the Hillmans decided in Fall 2006 to increase scholarship funding at PGCC to scholarships covering full tuition (including fees and books). Once they transfer to UM, students are entitled to $1,000 as a merit scholarship and up to 2/3 of tuition based on need. Additionally, scholarship funds may be used to provide tutors for students who face special academic challenges.

**Screening and Selection**

Hillman Entrepreneurs are selected based on their entrepreneurial potential, as demonstrated by their motivation, creativity, persistence, real life experiences, and ethical leadership. Emphasis is placed on students who show determination and potential in their academic programs, rather than using eliminators such as baseline GPAs and SAT scores. All applicants submit a brief application, transcripts, and a one page essay describing their attributes. Promising candidates are interviewed by at least two program representatives (typically the Program Directors) and recommendations are forwarded to David Hillman for a final decision.

Twenty four applicants were accepted into the first admission group in Fall 2006, twenty of whom entered the program. A second group of applicants applied in December for Spring 2007 acceptance. Twenty seven applicants were accepted into this second admission group, twenty six of whom entered the program.

**Key Challenges**

Based on the experience of the first selection process, the application process was amended in Spring 2007 to address the following challenges:

- Students entering the program without a strong academic foundation
- Students entering the program without sufficient commitment to program goals

**Students Entering the Program without a Strong Academic Foundation**

During the program’s first year of operation, the evaluation team found that students who earned lower GPAs prior to entering the program were more likely to drop out from the program. The
program has taken multiple steps to address the challenge of supporting students with weaker academic skills. First, the program developed a new academic support strategy as its Fall 2007 recruitment efforts shifted towards high school students. This shift in recruitment highlighted the tension between keeping the program open to students with unfulfilled academic potential and admitting students with the requisite skills to graduate with a bachelor’s degree from UM. There was a particular concern that some incoming freshman had not proven themselves with college-level classes and needed to be placed into remedial courses. This need for remediation is not unusual at PGCC, where many highly motivated students may arrive from disadvantaged educational backgrounds.

Thus, a Provisional Status was created for promising, but unproven recent high school graduates who are unable to pass PGCC’s entrance exams in reading, writing, and/or mathematics\textsuperscript{1}. At PGCC, students failing any of these exams are required to pass developmental courses that do not count towards a degree. Provisional Status provides candidates for the Hillman Entrepreneurs Program with program mentoring and with tuition benefits up to 10 hours per semester to cover two or fewer levels of developmental course work. Successful completion of the developmental course work within two semesters leads to full admission to the program.

In Spring 2007, four high school graduates were accepted, of which three were offered provisional status. All of the freshmen had a successful semester, and are now fully admitted into the program – suggesting that Provisional Status could be a successful strategy for identifying students with unfulfilled academic potential and supporting their growth.

\textit{Students Entering the Program without Sufficient Commitment to Program Goals}

In addition to offering Provisional Status, the program also created a Probational Status to balance the goals of supporting students who did not demonstrate academic growth while maintaining high expectations for all students. Students whose GPAs fall below 2.5 or who demonstrate a low level of commitment to the program now enter a probational period (typically one semester) in which to bring their grades above 2.5. Failure to do so without extenuating circumstances results in removal from the program. Students may also be placed on probation if they fail to meet program expectations in other areas, including lack of participation or failure to follow program policies.

\textbf{The Transfer Process}

The program was designed to select cohorts of 20-25 each year to reach a capacity of 80-100 students between the two institutions. While it would have been unrealistic to expect 100 percent of the students to complete the program, there were some surprises regarding the expectation that cohorts would transfer in a systematic fashion.

As the second year of the program began, instead of 20 students from the first admission group transferring, only 14 students (8 from the first admission group in Fall 2006, 6 from the second admission group in Spring 2007) transferred to the University of Maryland and 7 students (6 from the first admission group, 1 from the second admission group) left the program. The remaining 6 students from the first admission group delayed their transfer to either Spring 2008
or Fall 2008. The 19 students from the second admission group are on track to transfer to UM in Fall 2008 (see Table 1).

| Table 1:  
| Admissions Cohort Breakdown (as of Fall 2007) |

<table>
<thead>
<tr>
<th>Admissions Cohort</th>
<th>Status</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 06 Admissions</td>
<td>UM Transfer</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Delayed Transfer</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Dropouts</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>20 total</strong></td>
</tr>
<tr>
<td>Spring 07 Admissions</td>
<td>UM Transfer</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>On Track to Transfer</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Dropouts</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>26 total</strong></td>
</tr>
<tr>
<td>All Students</td>
<td>UM Transfer</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>Delayed Transfer</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>On Track to Transfer</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>Dropouts</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>46 total</strong></td>
</tr>
</tbody>
</table>

Key Challenges

After observing these patterns in student transfer and retention, the program refined its cohort structure and advising processes to address the following challenges:

- Students taking more time than expected to transfer to UM
- Students taking courses at UM on an accelerated schedule
- Static cohorts that did not meet the needs of non-traditional college students
- Other challenges related to retention
- The transfer admissions process
- The financial aid process

Students Taking More Time Than Expected to Transfer to UM

Multiple factors caused students to take longer than expected to transfer to UM. Of the six students who fell into this category during 2006-07, one student had to take more courses as a result of changing to a transferable major, one student choose to retake classes for an improved overall GPA, one student took time off for childbirth, and three students feared taking mathematics courses with a full schedule, so they spread their credits out over an extra term.
Obstacles related to math courses at PGCC presented the greatest challenge to the program’s expectation that students would transfer in a timely manner. Such obstacles are not unusual for a community college population; a number of studies have suggested that community college students may be more likely to struggle with mathematics than their four-year college peers.\textsuperscript{2,3}

When students enter PGCC, they must take a mathematics entrance exam. If they receive low scores, they are then required to take several developmental (pre-freshman, non-college) mathematics courses before they are allowed to take the math courses needed for their majors. The PGCC Program Director has found that many students do not prepare for the mathematics entrance exam, or have a weak mathematics foundation, and thus are being placed into developmental math courses – which increase the number of classes that must be taken at PGCC.

Additionally, a review of scheduling plans late in the first year revealed that some students at PGCC who had a particular concern about passing required mathematics classes did not attempt the classes, and instead, choose to fill their schedules with other classes. This strategy slowed their progress toward completing their associate’s degree at PGCC since the mathematics requirement involves completing a sequence of courses.

At the University of Maryland, students complete their CORE requirement when they have passed one of the following:

\begin{itemize}
  \item MATH 110: Elementary Mathematical Models
  \item MATH 111: Introduction to Probability
  \item MATH 113: College Algebra with Applications
  \item MATH 115: Pre-calculus
  \item MATH 140: Calculus I (the Engineering calculus requirement)
  \item MATH 220: Elementary Calculus I (the Business calculus requirement)
\end{itemize}

To pursue the subset of majors requiring the most difficult math (engineering, computer science, math, etc.) students must pass Math 140 for their CORE. If students are pursuing majors such as Business or Economics, they take Math 220. Social Sciences majors, including those in Psychology and Sociology, typically take Math 111 to prepare them for their upper level statistics classes.

During their first two semesters at UM, the Hillman students have all worked hard to pass the requirements of their particular major. Some students are successfully passing the lowest math level without difficulty. However, challenges have occurred with those pursuing a major that requires mathematics skills beyond their comfort level or academic foundation.

To address the challenges the math requirements present, the Program Directors are now monitoring students’ scheduling more closely and encouraging all students to enroll in mathematics classes every semester (even summers, if behind). Even in the case of mathematics-adept engineering or computer science students, the Program Directors are also encouraging students to pursue their mathematics requirement sequences in the smaller classes available at the community college, so that they do not face the larger classes at the university – where they might receive fewer opportunities for one-on-one assistance.
Finally, the Hillman Foundation has also agreed to fund tutors as needed; this service, however, has not yet been fully implemented at PGCC. Although a math learning center, a development math lab, and math tutoring center are available at PGCC, utilizing the tutoring services is difficult because the available tutoring often does not coincide with the schedules of the students – many of whom must balance classes, work and families. In the coming year, the program plans to explore how more customized tutoring might meet student needs.

At UM, there are extensive tutoring sessions offered through the Department of Mathematics. Students may walk-in throughout the day with specific times allotted to specific levels of math based on the availability of student tutors. These services are free to students and the students are being encouraged to use the services. At UM, since those in majors with less rigorous math requirements have already completed their math requirements, these resources are primarily for the technical majors.

**Students Taking Courses at UM on an Accelerated Schedule**

Just as some students have delayed transfer to UM, there are several cases where a faster move to UM, or taking classes at UM while at PGCC, has proven to be a successful strategy – particularly with the engineering and computer science majors. Although taking courses in PGCC’s small class setting can be an advantage, course offerings can be a problem for the students pursuing technical degrees. One civil engineer transferred early to enroll in courses only available at UM and will either transfer courses back to PGCC to earn the associate’s degree or forgo the degree. Others have participated in a special partnership program called MTAP where students at the community college can take one or two classes per semester at UM. For instance, a differential calculus course was not taught at PGCC during Fall 2007, so the engineering student was able to take the class at UM.

Working with these “accelerated transfers” has highlighted the importance of providing all program participants with timely and sufficiently individualized advising. Improving the quality of academic advising within the program, therefore, has become a major goal for the 2007-08 year. Although much of the advising offered by the program remains relatively informal, some progress in this area has already been made. For instance, the strategy of sending MTAP students to UM for specific courses better taken at UM is already becoming a regular part of individual advising.

**Static Cohorts that Did Not Meet the Needs of Non-Traditional College Students**

The unanticipated variations in transfer timelines and the information gathered from program dropouts raised questions about the program’s reliance upon static, inflexible cohorts. The original MOU’s concept of a cohort of students who would progress together through PGCC (and subsequently UM) was unrealistic and has been largely abandoned at PGCC. As noted above, some students have progressed more slowly through PGCC than initially anticipated. Others have had to take additional classes in order to complete transferable majors. Thus, the reality is that students transfer when they are ready to transfer – and not necessarily on a tight schedule.
Equally unrealistic in the MOU was the notion that each student would graduate in four years. Many non-traditional students have obligations and challenges that do not allow for a straightforward four-year path to a bachelor’s degree. While the program will continue to wrestle with these external challenges, it has become clear that supplementary scholarship funding will be needed to support students unable to finish their degrees within four years.

**Other Challenges Related to Retention**

Finally, the Program Directors and the evaluation team identified the original cohort model’s rigidity as one possible factor contributing to a higher than expected dropout rate among the program’s first two semesters. Over the course of the 2006-07 academic year, six students from the Fall 2006 admission group and one student from the Spring 2007 admission group left the program. Of those involuntarily removed, reasons included poor academic performance and low participation rate. Those voluntarily leaving the program cited family and work obligations, pursuing a degree that was not offered at UM, and self-described lack of “fit” to the program.

Two of the dropout students revealed that they felt pressured to take a certain number of courses in order to transfer on time with their admission group and this pressure was intensified by students’ inflexible work schedules. Although the information gathered from these interviews was not conclusive, it provided some evidence that increasing the cohort structure’s flexibility might improve student retention. Moreover, these exit interviews – when combined with the results of an end-of-year student satisfaction survey and anecdotal information gathered from the Program Directors – also supported the program’s decision to track students at risk for dropping out more explicitly (through creation of Provisional and Probational Status) and to develop more targeted tutoring services for academically struggling students.

**The Transfer Admissions Process**

Despite enthusiastic support from the highest levels at UM, and the promise of the program to provide a “seamless transfer,” the initial transfer process to UM was very challenging for the first fourteen students and is proving equally difficult for the six students admitted for Spring 2008.

Most students appeared to complete the general admissions process with few difficulties. A February 2008 transfer survey revealed that a majority of students who had attempted to transfer within the previous 12 months agreed that they had received adequate advising about course scheduling prior to transfer (88 percent of respondents agreeing). Slightly smaller majorities of transfer students agreed that they had received adequate advising about UM’s application and acceptance requirements (81 percent agreeing) and adequate advising about when to transfer (75 percent agreeing).

Getting the transfers admitted to the School of their choice was a separate challenge. One key aspect of this challenge was finding an acceptable major for students who are generalists. Table 2 summarizes the majors selected for the 20 students who have thus far transferred to UM.
<table>
<thead>
<tr>
<th>Academic Majors of UM Transfers</th>
<th>Number of Students Pursuing the Major</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FALL 2007</strong></td>
<td></td>
</tr>
<tr>
<td>American Studies</td>
<td>5</td>
</tr>
<tr>
<td>Business</td>
<td>4</td>
</tr>
<tr>
<td>Biology</td>
<td>1</td>
</tr>
<tr>
<td>BS Economics/Master of Public Policy</td>
<td>1</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>1</td>
</tr>
<tr>
<td>Computer Science (expected Computer Engineering)</td>
<td>1</td>
</tr>
<tr>
<td>Education</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>14</td>
</tr>
<tr>
<td><strong>SPRING 2008</strong></td>
<td></td>
</tr>
<tr>
<td>American Studies *</td>
<td>2</td>
</tr>
<tr>
<td>Business</td>
<td>3</td>
</tr>
<tr>
<td>Computer Engineering</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>6</td>
</tr>
</tbody>
</table>

*Both Spring 2008 American Studies majors are pursuing technical degrees but chose the American Studies major because it provided flexibility and the fastest track to graduation. Earlier advising interventions at PGCC could have helped these students arrange their schedules so they could have pursued a more suitable major at UM.

Some students naturally fit into majors such as engineering, computer science and life sciences. These technology students typically have strong GPAs and previous success in their math/science courses and place easily into the UM programs. A subset of the transfers from the first cohort, however, were successfully admitted to the university but had difficulty finding a major they could enter because they did not have the requisite background courses or mathematics skills.

Consequently, the UM Program Director found that the American Studies degree allowed transfers with weaker math skills and great talents in other areas to continue pursuing a major of interest. The American Studies Degree Program is an interdisciplinary field of cultural studies where, in addition to the major courses, students can pursue areas of interest in two 12-hour concentrations. Thus, whether the student was interested in pursuing sociology, communications, business, or engineering management, the concentration areas in American Studies provide the option of taking courses in any of these areas. The flexibility of the American Studies degree has improved many students’ potential for success, and adopting a similar approach at other institutions considering the Hillman model may be sensible.
Beyond the challenges involved in selecting majors, some Hillman students had difficulty selecting courses at UM since they needed to gain admission and complete orientation before they were allowed to register. As a result, many courses were full by the time the students could register. Completing the requirements to register as early as possible will increase the students’ ability to create manageable schedules.

A major success during the program’s first semester at UM was the hiring of a transfer advisor in the Clark School of Engineering. The transfer advisor’s job is to advise all transferring engineers seeking admittance into the Clark School (as well as act as a resource for the Hillman Entrepreneurs). Program Directors from both institutions recognize that there needs to be much more contact with UM administrators and coordination of coursework while the Entrepreneurs are still at PGCC. The new academic transfer advisor should make this possible and facilitate the communication of knowledge across the two institutions.

The Financial Aid Process

Calculating financial aid for Hillman Entrepreneurs was also very difficult and untimely at UM. In the first year, equitable and defensible principles needed to be established since students would be receiving unequal amounts of need-based Hillman aid. An early lesson learned was that the process of determining financial aid packages needed to be initiated as early as possible because students needed to know their personal financial commitment. The Hillman Scholarship does not cover 100 percent of tuition and books. Typically, it can be very difficult for students to come up with additional funds. Students needed to plan to pay for partial tuition if Pell and other federal and state grants that increased their total package to 100 percent (or more) were not forthcoming.

Allocation Principles

The UM allocation model developed by the Advisory Board is based on principles that are within Hillman’s intent, but are also publicly defensible. These principles split students’ financial need into three categories:

- No financial need, either because family income was adequate or sufficient alternate funding was available (One transfer student received a $20,000 Regent’s Scholarship);
- Some financial need, based on income and eligibility for other scholarship funding such as Pell; and
- Extreme financial hardship, where family and other circumstances warranted a full grant, even if this would make the total grant amount including Pell and other grants exceed the cost of tuition and books. Full grants were determined to be $6,000.

Extreme hardship was a judgment call based on the Advisory Board’s understanding of extenuating circumstances. Awards are recommended by the Board and are approved by David Hillman.

UM in-state tuition is approximately $8,000 and an additional allotment of $1,000 is estimated as the need for books. The total award students receive from outside funding combined with
Hillman scholarships can range from a minimum of $1,000 Hillman merit scholarship only, to a maximum Hillman award plus Pell and other government grants equaling awards of more than 100% of the costs (and which Pell allows to go to living expenses) for those students with high need as defined by FAFSA.

The UM approach to calculating need and incorporating FAFSA as an unbiased determination of need may also be applicable to PGCC students. Program adjustments are under review by the Advisory Board and may be made for the fall semester of 2008. Ideally, the UM approach would help PGCC allocate scarce funding more efficiently and capitalize on federal and state grants not currently being utilized. Such an adjustment would create a requirement that applicants complete the FAFSA prior to applying for admission to the program.

Building Community

The Hillman Entrepreneurs Program serves non-traditional students with many off-campus family and work obligations. Hillman students must cope with challenges not faced by students within residential four-year college programs, such as long commutes to campus; fewer informal opportunities to socialize with other students; and fewer informal opportunities for mentoring and other assistance. Moreover, Hillman students arriving at UM were expected to experience a period of adjustment, or “transfer shock,” similar to that observed among other transfer students.\(^5\,^6\)

As a result, the Program Directors were concerned that Hillman students might experience isolation and a more fragmented sense of community immediately after transferring to UM. This potential vulnerability was highlighted by the February 2008 transfer survey, where respondents ranked commuting to UM, adjusting to different class sizes, and adjusting to a new peer group as the three most difficult adjustments they have experienced after transferring.

Key Challenges

Building a stronger sense of community for the Hillman Entrepreneurs’ unique student population involved several significant challenges:

- Enhancing community through the curriculum
- Enhancing community through activities
- Developing community space
- Improving mentoring opportunities

Enhancing Community through the Curriculum

Since its inception, the Hillman Entrepreneurs Program has designed new courses and also borrowed existing courses to make up a full four-year curriculum. At PGCC, students take one entrepreneurship course and one leadership development course, both of which are already in place at the institution. The only difference is that a special section was created so the Hillman students could take the classes together. One remaining challenge is that the first-year courses transfer as electives and, for some students, do not fulfill major requirements. This is an issue the
PGCC team is trying to solve by appealing for the leadership course to be added to the General Education requirements.

At UM the goal is to build on the coursework from PGCC and infuse technology entrepreneurship into the curriculum. Some courses are already in place, while others need to be designed. A course titled “Fundamentals of Technology Start-Up Ventures” was already being taught through MTECH and is offered across the campus without a pre-requisite. This multi-disciplinary course covers the fundamental aspects of creating, organizing, funding, managing, and growing a technology startup venture. A second course already being taught through MTECH (and also open cross-campus) is a case-study course that explores technology entrepreneurship with a focus on leadership, product design and development, and strategies to launch and manage technology ventures. Finally, a third course developed under the “Special Topics in Entrepreneurship” course title is being taught in Spring 2008. In this course, the UM Program Director and an SEC lawyer, who is also a CPA, help students complete a feasibility study on the viability of starting a venture. If the analysis proves the venture to be viable – based on the class’s market research and study – teams continue to work on the business. Opportunities to reach beyond the classroom and compete in business plan competitions and for available seed-funds bring real-life experiences to the classroom and help validate the students’ ideas. If appropriate, students may pursue the venture to launch under a mentor’s guidance.

With two courses in place and one new course planned, special sections have been set up for the Hillman students to take these courses together. Eventually, Hillman students will progress together through a series of four courses (with the last course, a capstone class, yet to be designed).

Enhancing Community through Activities

Beyond its curricular efforts to enhance community, the Hillman Entrepreneurs Program has also focused its attention on using activities to create more opportunities for students to connect with each other. For instance, the students established “accountability partners” where each student has another individual who is responsible to look out for them and vice versa. These students do not want anyone to fail and look for ways to keep in touch and to encourage each other. Other activities, such as the Leadership Ropes Course (that the combined PGCC and UM classes participate in each fall) and workshops conducted by external speakers also provide opportunities for students to stretch individually and in team-based activities.

Student surveys and informal feedback suggest that these activities have helped students gain trust in each other, welcome new students into the fold, and encourage each others’ success inside and outside of the program.

Developing Community Space

Community space is an especially important resource for Hillman’s non-residential student population, and the program has made significant efforts to improve the quality of space available to students. At UM a special space in the engineering complex has been reserved for Hillman Entrepreneurs where they can attend Hillman-related classes, study, socialize, relax, and
meet with invited speakers. Students have 24 hour-a-day access to this space, which includes a classroom area, computers, a lounge area and kitchen area, and an “Idea Room” where they retreat to study in quiet or conduct lively brainstorm sessions. MTECH leaders were instrumental in getting funding from UM’s associate provost and also shared in providing funding for refurbishing of the space.

**Improving Mentoring Opportunities**

Intensive mentoring has also proven to be a critical tool for strengthening the Hillman Entrepreneurs’ sense of community. Students are required to meet individually with their Program Director (who also acts as a mentor) on a frequent basis – typically every few weeks at a minimum, although students experiencing a crisis work may through the problems on a more frequent (even daily) basis. The mentor is viewed as a resource for vetting ideas, as a listening board, as an advocate, and as a window to the campus with knowledge of academic advising and campus procedures.

Early data suggest that the mentoring and other community-building activities within the Hillman Entrepreneurs Program have had a positive impact on students’ social adjustment. The February 2008 transfer survey found that 100 percent of the transfer students felt that they were part of a strong community at UM, and that 100 percent of the students felt supported as part of the Hillman program.

**Documentation and Adaptation**

The Hillman Entrepreneurs Program has taken deliberate steps to document the lessons learned during its start-up phase and to adapt to those lessons. The process of ensuring adequate documentation and adaptation, however, often introduced its own challenges.

**Key Challenges**

During the program’s inaugural year, several programmatic challenges – such as determining financial assistance in a fair and timely manner or reevaluating the original cohort model – prompted the Advisory Board to recognize the need for mechanisms to develop clearer, more effective policies. Consequently, the Advisory Board addressed the following administrative challenges:

- Making the program more adaptive
- Documenting program policies
- Measuring program performance

**Making the Program More Adaptive**

Because the Hillman Program is continuously evolving, a simpler mechanism for authorizing change to program structures than amending the MOU annually was deemed necessary. The Advisory Board wanted to ensure that there was consistency and that proposed program changes were fully understood and ratified by David and Suzanne Hillman. Therefore, the Advisory Board meetings have become the mechanism for discussing issues and options for addressing
them. When a proposed change is programmatic, the proposal is submitted to the donor for review and approval or amendment.

Currently, once a policy like provisional admission or probation is agreed upon by the Advisory Board, it is forwarded to David Hillman as a recommendation supported by background information. Once Hillman approves or amends the recommendation, it becomes formal policy and is captured in a Procedures Manual being developed at PGCC.

**Documenting Program Policies**

The Procedures Manual, now in development for PGCC, became one mechanism for documenting the ground rules for operations as they evolve. It covers relevant operational policies and details in depth, so that applicants, students, and administrators can have a clear view of how all the parts of the program fit together. This manual is available for viewing at www.hillman.umd.edu.

**Measuring Program Performance**

The MOU commits the University to a full-scale evaluation of program performance at the end of year three. This evaluation will serve as the basis for a Hillman Foundation decision regarding program success, continued funding, and, potentially, expansion to other community colleges.

The creation of an Annual Report became another mechanism for documenting the program’s evolving operations as they evolve – and for ensuring that the data exist for a legitimate evaluation at the end of year three. Issued by the program evaluation team and covering a single academic year, the Annual Report discusses operational successes, adaptations, and challenges, while providing extensive performance data about student performance and satisfaction within the program. The first Annual Report, developed in December 2007 and covering the 2006-07 academic year, can be viewed at www.hillman.umd.edu. In addition to the Annual Report, a shorter document that provides program highlights was deemed to be helpful for distribution to a broader community of stakeholders interested in the Program’s progress.

**Leveraging Resources**

Securing the resources and support necessary for sustaining the Hillman Entrepreneurs’ long-term success and growth emerged as a final challenge during the program’s first year.

**Key Challenges**

Addressing the goal of sustainability encouraged the Program Directors to focus on four specific challenges:

- Attracting supplemental resources
- Using summer internships and invited speakers to enhance the network
- Getting the word out
- Building internal support
Attracting Supplemental Resources

In order to expand and be successful long term, the Program needs to diversify its funding sources. Hillman students understand that they will be expected to give both time and money to the program after they graduate from UM and become successful entrepreneurs and community leaders. They welcome the opportunity to be examples of the program’s values. Beyond the future alumni base, financial support for the program has been broadened through development efforts that have already proven successful. From a development perspective, one of the most powerful elements of the program is its attraction of students with an indomitable entrepreneurial spirit but with modest financial means. This story translates easily into gift requests to potential philanthropic donors; corporations interested in making tax-deductible gifts to a program that will create a talented and motivated work-force; and economic development directors looking at increasing economic development in their region.

One example of the program’s appeal involves a successful young UM engineering alumnus who immigrated to this country. This individual, who identifies with the Hillman students’ backgrounds, has been sending the program $250 a month by automatic payment since December 2006. This fall, another gift of $32,500 was received as part of a $50,000 five year pledge to the Program. Finally, in late December the program received $3,000 from a local company that has a vendor relationship with the donor. The strategy of creating a lead gift and engaging other donors to expand the gift is a strategy for other schools to consider when determining how to implement their own versions of the Hillman model.

In addition to the scholarship gifts, a significant pre-seed fund has been set up at UM to assist the Hillman Entrepreneurs and Hinman CEOs’ business ventures. An individual donor saw the need for entrepreneurial students with little or no financial means to have access to seed funding to pursue their ventures. With this fund, students can write a business plan, develop an investor presentation, and receive funding for their idea. The pre-seed fund’s $250,000 pledge over five years ($50,000 per year) provides this important grant funding, and students may apply for up to $5,000 to start a company with an opportunity to later apply for an additional $5,000 to grow the company. Additional information about the pre-seed fund can be found at www.seedfund.umd.edu.

Using summer internships and invited speakers to enhance the network

Because the program was new in the 2006-2007 academic year, insufficient attention was paid to ensuring that Hillman Entrepreneurs who sought challenging summer jobs or internships related to their interests found such opportunities. The Program Directors did hold a resume workshop, but offering internship assistance was an informal feature during the first year of the program. Even so, five of the eight students who had successful jobs or internships learned about their opportunities through their Program Director – proving that the program was instrumental in connecting students with many of the internship opportunities. David Hillman, the donor, offered to hire some of the students at his Southern Management Corporation and several students found opportunities in the accounting and leasing offices. Other students used the Hillman program as a springboard, successfully connecting with potential employers at Hillman networking events. Finally, some students found rewarding internships on their own, including
engineers who were able to find positions using their technical skills and one student who received a prestigious research internship at Harvard.

Over half of the students were unable to participate in internships because either their work schedules did not allow for time off, they had to complete summer classes, or they were not aware of internship opportunities that were financially feasible. Given that many of the Hillman Entrepreneurs are non-traditional students at different stages of their professional lives, finding internship opportunities that meet their varied career and financial needs may continue to be a difficult process.

For the summer of 2008, the Program Directors are being more strategic about informing students of the internship process. PGCC has an internship readiness process where students participate in workshops including career and life planning, resume writing and review, and mock interviews. David Hillman is also expected to hire students again and other companies are already contacting the program.

At UM, the students are seeking internships from a variety of offerings including the National Science Foundation, the Howard Hughes Foundation’s undergraduate research program, and the Association of American Medical Colleges’ Summer Medical and Dental Education Program. Many of the UM internship opportunities involve an application process and require goal statements and letters of recommendation; thus, the current UM focus is primarily one-on-one mentoring. The Program Directors’ goal at both institutions is to ensure that every Hillman Entrepreneur for whom a summer placement is relevant will find a suitable opportunity.

Getting the Word Out

To date, the program has received substantial local coverage in the press and presentations have been made at two conferences: the American Society for Engineering Education (ASEE) and the National Association for Community College Entrepreneurship (NACCE). The program has already achieved local and national attention in newspapers, including articles in the Washington Post and the local Prince George’s County Gazette. Forbes Magazine also mentioned the Hillman Entrepreneurs Program as a factor in the University of Maryland’s national entrepreneurship ranking, and a Princeton Annual Review noted the program (as well as the Hinman CEOs Program) as a factor in its ranking of Maryland as 14th out of the 50 top entrepreneurial colleges. For other colleges and universities considering adopting this model, the potential for enhancing institutional reputations is high.

Building Internal Support

The Hillman Entrepreneurs Program is new to both PGCC and UM, and the Program Directors are learning where to find support for the students. It has helped that both campuses see this as a very important program and have committed funds to support the Program Directors salaries – a signal to David Hillman of the institutions’ support. The donation of the UM program space in the engineering school was an additional commitment and, considering the scarcity of space, a significant accomplishment. Given the program’s demonstrated support at the highest levels,
staff and administrators across campus are willing to listen and quick to assist the Program Directors with special needs.

**Conclusion**

The Hillman Entrepreneurs Program is maturing into a stable mechanism to identify promising entrepreneurial students at the community college level and support them through the completion of their bachelor’s degrees in a wide variety of majors. Perhaps the best testimony to the program’s progress is that David Hillman himself has observed that:

- The Program “is much further along” than he had expected it to be at this point;
- He is pleased to see his resources used as intended; and
- The collaboration between the institutions and their “can do” attitudes has been both unusually good and highly impressive.

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1 These amendments did not apply to students active in the program during the 2006-2007 year. However, the amendment process occurred during Spring and Summer 2007.
4 The transfer survey was administered to 20 students who had attempted to transfer and/or completed the transfer process between February 2007 and February 2008. 16 out of the 20 transfer students responded.