

## **AC 2007-1217: THE HILLMAN ENTREPRENEURS PROGRAM: A NEW EDUCATIONAL ENTREPRENEURSHIP MODEL THAT PARTNERS THE DAVID H. AND SUZANNE D. HILLMAN FAMILY FOUNDATION, INC., PRINCE GEORGE'S COMMUNITY COLLEGE, AND THE UNIVERSITY OF MARYLAND, COLLEGE PARK**

### **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 provided guidance to entrepreneurs in her role as the program director of the award-winning Hinman Campus Entrepreneurship Opportunities (CEOs) Program from its launch in fall of 2000 until December 2006. She and the faculty director provided the vision that has shaped the Hinman CEOs Program into a nationally recognized program. In December 2006, Karen was appointed the director of the Hillman Entrepreneurs Program and she is heavily involved with setting up the program in preparation of its launch at UM in the fall of 2007.

Karen also manages the business development activities of MTECH Ventures and oversees a cadre of educational programs and activities offered through the Clark School of Engineering designed to spur and support technology commercialization through education, networking and hands-on incubation.

Karen has professional experience in both human resources and negotiation; she lectures on ethics, leadership, marketing and other business topics. She is a frequent presenter at conferences and has co-authored several papers on entrepreneurship education. Karen has earned Bachelor and Master of Music degrees 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 before coming to the University of Maryland. Her international experience includes a Fulbright Fellowship to London where she studied and performed for nearly three years as well as an appointment as artist in residence at the St. Petersburg Conservatory.

### **Jacqueline Rogers, University of Maryland (Retired)**

Jacqueline Rogers was a Senior Fellow for the Maryland School of Public Policy from 1994 until her retirement in 2006. In her role, she taught in the Management, Finance and Leadership concentration and was lead instructor in a variety of Executive Education Programs for mid-career professionals including Housing and Community Development, Managing Social Services, Military Housing Privatization and Asset Management for Privatized Military Housing.

Previous to joining the University of Maryland, Jacqueline was Secretary, Maryland Department of Housing and Community Development from 1987-94 for Governor William Donald Schaefer. She was responsible for a Department which included the State's Historic Preservation, Community Development as well as Housing Finance and Insurance functions with a staff of 400+. She oversaw a bond funded loan portfolio of over 2 billion dollars, administered the State's HOME and CDBG programs, and authorized lending for single family and multifamily housing at roughly \$400 million per year. Jacqueline was Director, Office of Management and Budget, Montgomery County, Md. from 1980-87 for County Executive Charles W. Gilchrist where she was responsible for development of the County's capital and operating budgets as well as computer systems development and central computing support with a staff of 125.

Jacqueline earned her BA from University of California at Santa Barbara in German Literature, and her MA and PhD from Yale University in German Literature. She is a Fellow of the National Academy of Public Administration.

**Kristen Waters, University of Maryland**

As a research assistant for the University of Maryland's Office of Executive Programs (OEP), Kristen Waters co-authored an economic impact analysis of changes to Maryland's historic tax credit law, served as lead author on a case study of two Baltimore City patient guest houses, and is currently developing and implementing an assessment of the Hillman Entrepreneurs Program.

Kristen's prior work experience includes several years with the Annie E. Casey Foundation, an organization devoted to improving outcomes for disadvantaged kids, families, and communities; an internship with the Government Accountability Office (GAO); and a program assistantship with the Maryland Institute for Technology in the Humanities (MITH).

Kristen received her BS in marketing and BA in English from the University of Maryland, College Park. She is currently pursuing an Master's of Public Policy with a specialization in social policy from the University of Maryland, as well as a Certificate in Nonprofit Studies from Johns Hopkins University. Her scholastic honors have included an Academic Achievement Fellowship, the John Portz Outstanding Student Award, induction into the Maryland Medallion Society, and Gemstone and Honors Citations.

Kristen is currently president of the Maryland School of Public Policy's Graduate Women in Public Policy (GWIPP) and a member of the school's Policy Student Government Association.

**Nathan Myers, University of Maryland**

Nathan Myers is a research assistant with the University of Maryland's Office of Executive Programs (OEP), where he is developing and implementing an assessment of the Hillman Entrepreneurs Program. He is concurrently pursuing a Master of Public Policy degree at the University of Maryland's School of Public Policy, and his graduate studies focus on critical issues of social and educational policy, such as K-12 education reform, school equity and accountability, adult literacy, and community development.

Prior to attending the University of Maryland, Nathan spent seven years working as a secondary school English teacher and reading specialist in urban and suburban public schools throughout Pennsylvania, Maryland, and the District of Columbia. He also provided academic support and residential life programming for a number of undergraduate institutions and served as a policy research fellow with the National Human Services Assembly, an association of leading non-profit organizations in the fields of health, human and community development, and human services.

Nathan holds a B.A. in English Literature from Swarthmore College, where he was inducted into the Phi Beta Kappa society, and an M.Ed. from the University of Pennsylvania's Graduate School of Education.

**Lisa Rawlings, Prince George's Prince Community College**

Lisa Rawlings, Program Director of the Hillman Entrepreneurs Program, is a Baltimore native who has worked in finance for over 15 years. Prior to this position, Ms. Rawlings worked at the University of Maryland Medical Center and the University of Maryland School of Public Affairs where she did financial/policy analysis and research. At the Robert H. Smith School where she pursued a PhD degree, Ms. Rawlings taught both introductory and advanced finance courses. She was nominated for the 2001 Parents' Association Teaching Award. Prior to her return to academia, Ms. Rawlings was a financial manager for Procter & Gamble for eight years.

Ms. Rawlings received a BSE in Systems Engineering from Princeton University and an MBA in Finance from the University of Michigan where she was a Consortium for the Graduate Study of Management fellow.

**The Hillman Entrepreneurs Program:**  
A New Educational Entrepreneurship Model that Partners  
The David H. and Suzanne D. Hillman Family Foundation, Inc.,  
Prince George's Community College,  
and  
The University of Maryland, College Park

**Karen Thornton, Jacqueline Rogers, Kristin Waters, Nathan Myers,  
Lisa Rawlings**

**Abstract**

Prince Georges Community College (PGCC), the University of Maryland (UM) and the David and Suzanne Hillman Family Foundation have established a three-way partnership that creates a new model for entrepreneurship education. This new program strengthens and expedites the development of aspiring entrepreneurs through mentoring, community building, and class work as students move through the community college to graduation from UM supported by scholarships from the Hillmans. This paper describes the program features, the learning curve of the stakeholders as they navigate working across the boundaries of two academic systems, and early outcomes of this new program.

**Introduction**

The Hillman Entrepreneurs Program launched in fall 2006 with the selection of the first cohort of 20 students attending PGCC. This three-year pilot program will provide mentoring and four years of scholarship support to four cohorts of 20-30 students. After the evaluation conducted in year three, David Hillman will decide whether to terminate, continue, or expand the program. Once admitted to the program, scholarship support will continue for students to graduation thus extending Hillman's commitment to a minimum of seven years. Hillman Entrepreneurs begin their college experience at the two-year school. Students graduate with an Associates degree and then transfer exclusively to UM to earn their bachelor's degree in a major of their choosing.

The program is housed in the Behavioral, Social and Business Studies Division at PGCC and in the Maryland Technology Enterprise Institute (MTECH) at UM, a part of the A. James Clark School of Engineering. If the program succeeds, Hillman wants to extend it to other local two-year institutions where his company, Southern Management, has a presence.

**The Donor**

David Hillman was born and raised in Maryland and is devoted to giving back to the region that contributed to his success. As a teenager, Hillman attended the prestigious Bethesda Chevy Chase High School in Montgomery County, but he wasn't among the serious students vying for places at Ivy League universities. He describes himself as an ordinary high school student, not college bound, without clear aspirations and with no real sense of who he was.

After graduating from high school, Hillman worked for a developer as a book keeper and he attended a non-accredited night school, Strayer College, where he took accounting courses. That he was the youngest person to pass the CPA exam on the first attempt, attests to an innate talent not evident in high school. When keeping the books for the developer, he concluded that he could be more successful owning and managing his own property than by managing someone else's accounts.

David Hillman still owns and manages the first building he bought, but his assets now exceed 27,000 units in the Baltimore-Washington Metropolitan Area. His strategy has been to purchase older buildings, refurbish them, and then manage the rental units. Most of his inventory consists of older, well-maintained rental units, which provide working people with decent and safe places to live. As he makes decisions about giving back to the communities where he has made his money, one of his targets is the families who live in his rental units.

In recent years, David Hillman has been experimenting with providing scholarships to local community colleges and universities to assist young people from the communities which have allowed Southern Management to flourish. Some of the scholarships have gone to young people with potential who, given proper support, can become successful entrepreneurs, but who have not necessarily distinguished themselves academically. His goal has been to give scholarship recipients the college education that he never got, so that they become entrepreneurial thinkers and, like him, give back to their communities in Maryland.

### **The Idea**

In the fall of 2004, David Hillman approached Dr. Jacqueline Rogers, a Senior Fellow at the Maryland School of Public Policy (MSPP), and asked that she help him consider how to expand his scholarship program. Since the 1970s, Hillman and Rogers' paths had periodically crossed professionally and, in recent years, David had guest lectured in MSPP's Executive Programs. He had been funding Graduate Assistantships at MSPP for several years. Hillman asked that Rogers seek out Dr. Ronald Williams, Prince George's Community College's President, to discuss expanded giving. Hillman had also given substantial sums to PGCC for scholarships and he trusted Williams.

In late November, Rogers and Williams met in the President's office. Also in attendance was Vera Zdravkovich, Vice President for Instruction for PGCC. As the three discussed their perceptions of Hillman's intent, the idea for the Hillman Entrepreneurs program was conceived. The concept was to find PGCC students with demonstrated entrepreneurial aptitude, provide them with mentoring and financial support, and position them to transfer seamlessly to the University of Maryland to complete their undergraduate degrees in a field of their choosing with continuing mentoring and scholarship support.

Convinced that they were on to something special, the three developed a short concept paper and asked Hillman whether they should pursue the idea further. Though he had been thinking more about giving individual scholarships to worthy students, Hillman was intrigued and authorized them to proceed.

Work began in earnest in the spring of 2005. A small working team was assembled consisting of Zdravkovich and Verna Teasdale, Senior Academic Administrator, from PGCC; Rogers, Karen Thornton, Director of the Hinman Campus Entrepreneurship Opportunities (CEOs) Program at UM and Ken Ashworth, UM's Executive Director of Development, who represented the interests of the University of Maryland President, Dr. Daniel Mote.

UM had already established a nationally acclaimed undergraduate entrepreneurship program, the Hinman CEOs Program and Thornton, the founding program director, joined the team to provide domain knowledge and six years experience starting a ground-breaking program. The Hinman CEOs Program is housed in MTECH Ventures where a significant number of entrepreneurship programs and initiatives serve the entire campus community, such as: a technology incubator; a Venture Accelerator for faculty and graduate students; educational opportunities both in and out of the classroom through courses and programs open to the campus; and annual business plan competitions and start-up boot camps. Given this infrastructure, the working team decided to house the UM component of this exciting program within MTECH Ventures.

### **The Program**

What evolved was the Hillman Entrepreneurs Program, an educational, team-building and mentoring program that provides four-year scholarships for entrepreneurial students from Maryland, who otherwise may not have the financial capacity to pursue a college degree or compete well for financial aid. The Hillman scholarship enables students to go to school full-time and take a rich set of specially designed entrepreneurship and leadership courses. The program includes out-of-the-classroom activities and mentoring to help them develop as entrepreneurs within a community of entrepreneurs. The program supports a full-time mentor at each educational institution, who is charged with guiding the Hillman students with their ventures and planning the community activities that enhance their classroom education.

In contrast to the living-learning Hinman CEOs Program, an existing UM entrepreneurship program that focuses on resources for entrepreneurial students within the residential community,<sup>1</sup> the Hillman Program is non-residential. Both programs are open to undergraduates from all academic disciplines and have a formalized structure with mentoring and required course work, but the Hinman CEOs Program provides no scholarships.

In addition to being non-residential, the Hillman Program crosses two campuses. It faces the unique challenges of building a community for the students and a collaborative environment between the institutions. Also, the profile of the community college students admitted to the Hillman Entrepreneurs Program includes those who have faced economic and social challenges and many are non-traditional students. The PGCC campus serves people from a wide age range including students with families and children and the Hillman Program reflects this population.

If successful, the Hillman Entrepreneurs Program will provide a replicable model for integrating non-traditional community college students successfully into four-year colleges.

## **Program Setup and Timeline**

No precedent existed for the Hillman Entrepreneurs Program, but the working team kept its focus on finding and supporting the type of student Hillman envisioned. The team identified myriad questions to consider: timing of launching the start-up; recruitment strategies; appropriate cohort size; how to provide the best mentoring and support across two campuses; the logistics surrounding assessing need and providing scholarship assistance; program eligibility criteria; strategies for smooth transfer to Maryland; administrative support needs; the financial extent and length of the commitment by Hillman; conditions for replication or expansion to other community colleges; and evaluation.

As the team worked through these considerations, it consulted regularly with and took direction from Hillman. Collectively, the parties set a goal of approving a three-way Memorandum of Understanding (MOU) by the end of 2005 and launching the program with a first cohort of Hillman Entrepreneurs in the fall of 2006. Both of these goals were met.

The two institutions' Presidents' commitment to the concept facilitated timely decision-making. President Williams had a long-term relationship with Hillman and he was committed to ensuring a smooth path to success for his graduates' transfer to UM. As an example, when the initial hiring process for a program director at PGCC failed, he eliminated bottlenecks, which enabled a timely, successful second search. Similarly, when initial implementation diverged from the MOU, he intervened to put the program back on track.

At UM, Ashworth kept President Mote apprised of progress. Mote had already started the Baltimore Incentives Awards Program that targeted Baltimore City students specifically chosen for their combination of academic abilities and challenges they had overcome during high school. After early success with that scholarship program, he had expanded the model into Prince George's County. Mote wants UM to be the beacon of hope for all those students with the potential and drive to succeed, as reflected in the following elements of the University's mission statement:

- That UM be an exemplary citizen in Prince George's County;
- That all UM students have the opportunity to participate in special education programs such internships, mentoring, living-learning programs and study abroad;
- That UM demonstrates its commitment to educational opportunity;
- That UM provides academic opportunity and scholarship support to transfer students; and
- That UM partners with community colleges.

The program objectives fit well with the institutional objectives for both institutions to educate students from all walks of life and to assist students who might not otherwise have the resources to pursue a college degree. The executive level attention these presidents gave was a critical success factor in this program's quick set-up and early success.

## **The Memorandum of Understanding**

Major provisions of the MOU include:

- The Hillman Family Foundation pledged \$1.7 million over a 7 year period for scholarships and administration (a minimum of 3 years of building the program with a commitment to complete scholarship support for anyone admitted until graduation);
- Hillman Entrepreneurs would get modest merit scholarships and have up to 2/3 of their tuition and fees paid for by the Hillman Foundation based on an assessment of need (Hillman funds for students were specifically limited to tuition and could not be used for living expenses);
- The Hillmans, PGCC and UM would jointly fund the administrative expenses associated with program operations, but the Hillmans reserved the right to cancel administrative support at any time if dissatisfied with performance, while preserving their scholarship commitment to Hillman Entrepreneurs;
- There would be an Advisory Board made up of principals from both institutions to keep the institutions communicating and working together as well as provide oversight regarding compliance with the MOU; and
- There would be an evaluation in the third year, which would lead to a decision as to whether a fourth PGCC cohort would be selected and whether the program would be expanded to other community colleges in jurisdictions where Southern Management has a major presence.

Previously, the Hillmans had had negative experiences when expectations associated with major donations to other universities were not met. Therefore, the MOU for the Hillman Entrepreneurs program has an unusually high level of specificity. Even so, all the parties recognized that there would be many challenges in moving from intent to reality. The MOU represented the parties' best thinking, but not every eventuality could be anticipated. The key to early success has proven to be strong lines of communication with all parties and prompt attention to issues.

In order to accelerate results, the first group of Hillman Entrepreneurs was to be chosen from rising sophomores at PGCC, with those students thus receiving only one year of support at PGCC before transferring to UM in the fall of 2007. The second cohort would be selected in the Fall Semester 2006 to start in Spring Semester of 2007 and would matriculate at UM in 2008 and the third cohort would have two full years at PGCC, transferring to UM in 2009. Steady state would be defined as recruitment in the spring for each fall's freshman class.

### **Criteria for Selection of the Hillman Entrepreneurs**

The program design lays out certain basic qualities to look for in selection of candidates, with emphasis on entrepreneurial potential. Hillman wants to select students with an entrepreneurial mindset that had already shown itself through demonstrated real-life business experiences or with ideas that showed promise for future entrepreneurial endeavors. Hillman's definition includes students who want become intrapreneurs - future leaders within existing organizations.

Additional qualities sought in include motivation, creativity, persistence and the potential for ethical leadership. The ability to overcome life challenges is seen as a positive characteristic and the resilience early in life is regarded as an indicator of potential for future success. (See the student profiles located in Appendix I.).

Hillman places a higher priority on finding the combination of intellectual capacity and resilience than actual historical academic achievement. Students showing determination and potential in their academic programs, but who have not yet achieved the GPA typically associated with an academic scholarship are preferable to high achieving students lacking in entrepreneurial spirit. SATs and other test scores are not assessed, but grades are evaluated to ascertain the candidate's potential for success. No specific baseline GPA is an eliminator. This policy makes selection a challenge. Some candidates are clearly academically talented but others require a leap of trust, and application of "gut feel" by the selection committee.

Hillman wants students selected who understand the importance of giving back through community service and who demonstrate long term commitment to this program and its future students.

Finally, the students have to commit to transferring exclusively to UM.

### **Program Start-up**

Selection of the Program Director at PGCC - The most urgent priorities for the spring and summer of 2006 were hiring the Program Director at PGCC and selecting the first class.

The PGCC team allowed Thornton to participate on the selection committee as the UM representative. Setting the tone of collaboration early was important. Unfortunately, the recruitment process was very slow. A selection process sensitive to the program timeline was not put in place. By the time an offer was made, the best candidate had accepted a different position.

The failure of the initial recruitment effort almost resulted in a delay in program start-up. With this failed attempt and the need to recruit the first class imminent, President Williams intervened to expedite the internal processes. Thus, an early lesson learned was to design a timely selection process, leveraging the power of the most influential stakeholders if necessary.

The second recruitment yielded an excellent Program Director, Lisa Rawlings, fully acceptable to the Hillmans. Rawlings has an MBA from Michigan and 8 years of experience in corporate America; she is pursuing a Ph. D. at the UM Smith School of Business, because her passion is for teaching aspiring students from disadvantaged backgrounds. Rawlings was known to the team, having worked at MSPP with Rogers on several projects.

With the delay hiring Rawlings, she did not start work until July, many months behind the planned schedule. Her first priority was outreach and recruitment for the first cohort of students. The recruitment was limited to current PGCC students with approximately 30 credits completed who could reasonably be expected to transfer to UM by the fall of '07.

Recruitment of Hillman Entrepreneurs - As the selection process took shape, Hillman asked that strong candidates be forwarded to him for final decision and he realized that he wanted to limit Hillman Entrepreneurs to Maryland residents. Furthermore, he asked that his daughter Cheryl join the working team as his representative.



The initial application process was simple, but not thorough enough. There was little time to develop a comprehensive set of written questions. Also, getting responses to a longer application was a concern when the recruitment process started in late summer for the fall class. Students completed a brief application, provided transcripts and wrote a one page essay describing why they thought they should be chosen. They were not required to complete the Federal Application for Financial Support (FAFSA).

The applications were screened by Rawlings and interviews were scheduled with promising candidates. Rawlings participated in all interviews. Rogers, Teasdale, Thornton and Cheryl Hillman joined selected interviews, but there were always at least two interviewers present. If the interviewers couldn't agree on the potential of the applicant, their applications were considered by the larger working group. Since the written application was brief, the interviews were critical and the standard questions asked of the applicants delved deeper into their backgrounds, motivations, entrepreneurial talents and value systems.

During the interviews, the diversity of applicants' backgrounds provided further insight into challenges the program would face and the difficulty PGCC would experience in preparing the students for transfer to UM. Three challenges emerged – degree options, allocation of scholarship funding and the definition of “cohorts.” These are discussed more fully in the Challenges section below.

Recruiting - Despite the late start, the initial recruiting process resulted in 45 applications. Thirty three people were interviewed and 24 diverse and interesting students were recommended to Hillman for acceptance. Of those, 20 entered the program. Listed below are some defining characteristics of the first cohort:

- Students selected for the first cohort strongly identify with recruitment criteria seeking motivated, creative, and resilient individuals. When asked to assess themselves on a number of core competencies, 84 percent of the first cohort students ranked their “drive to achieve” as being within the top 10 percent of the general population and 53 percent of the students ranked their “creativity” as being similarly well-developed. Hillman students also ranked themselves highly on competencies such as “self-confidence,” “leadership ability,” and “working with others.”
- They are actively engaged in providing ethical leadership to their communities, reflecting another recruitment goal. Sixty-eight percent of the first cohort reported volunteering or completing community service over the last 12 months, with students volunteering an average of 8.8 hours per month.
- They have a wide diversity of majors – 5 have engineering or computer technology majors, 5 have business or finance majors and the rest are majoring in general studies, economics or elementary education.
- Twelve Hillman Entrepreneurs currently have or have had businesses. These include:
  - Help desk and systems administration support;
  - Residential property investing/realty businesses;

- Video recording/production;
  - Tutorial services;
  - Lawn care services; and
  - Marketing and event promotion.
- Two Hillman Entrepreneurs want to affect social change through creating non-profit organizations:
    - Establishment of group home for runaway, abused and/or pregnant girls; and
    - Establishment of non-profit organization with the mission to prevent violence in African American communities
  - According to results from the first cohort's baseline survey (described below), the first cohort represents a range of personal and cultural backgrounds:
    - The mean age of the first cohort is 27.6 years, with student ages ranging from 19 to 42.
    - The male-female ratio in the first cohort is nearly balanced, with 55 percent men and 45 percent women.
    - The students identified as predominately African American (84 percent) and Asian American (16 percent), with several students identifying with more than one racial/ethnic background.
    - While most of the students are U.S. citizens, 16 percent of the students hold foreign citizenship and 16 percent speak English as a second language.

Entrepreneurship Class - Another early success was the Hillman Entrepreneurs' first academic class together, MGT268 Entrepreneurship. Although the course had already been developed at PGCC, to ensure the course met content requirements and flexibility required by the newly established program one of MTECH Venture's instructors, James Green, was brought in as the instructor. The course served a dual educational and bonding purpose, as described below.

- Instead of a formal class, the first session was a barbeque that included a welcome talk by David Hillman. Students had an opportunity to hear directly about his reasons for creating the program and his expectations of them as its inaugural class.
- One class session was used as a leadership and team building exercise and was held at the UM's Leadership Challenge Course. Students interacted in a team-based outdoor setting, engaging in problem solving activities to get better acquainted and challenge themselves.
- Guest speakers augmented classroom instruction. Carolyn Miller, a successful author and entrepreneur with a thriving business, shared her expertise in goal theory and positive psychology. They also heard from a recent graduate of the Hinman CEOs Program about his entrepreneurial venture. Dargeelyn Loftin, a successful African American woman and founder of Loftin Management Consulting, Inc. – a Maryland Top 100 Minority Business – served as a role model for this primarily African American group of students.

- In the final session, students made a team-based presentation of a business concept developed over the semester to their classmates and David and Cheryl Hillman.

The course was very successful. The Hillman Entrepreneurs had begun to develop skills necessary to create, evaluate and implement new ventures and they had started to bond. Even with this auspicious beginning, the team still needs to create a course lineup for the two institutions, which will ensure that in each semester of the program, they will get an academic experience which further refines their skills.

Formal Program Announcement - Although the MOU was signed December of 2005, the appropriate venue for making it public was not easily identified. Hillman wanted local elected officials participate in the announcement, but no appropriate opportunity arose during the spring State legislative session. An event tentatively planned for late spring at the Prince George's County Office Building seemed unlikely to generate much public interest. Ultimately, the announcement was deferred until the Hillman Entrepreneurs had been selected and the semester had begun.

Creating awareness and developing effective public relations were early goals of the program and the first execution was through the inaugural celebratory event. Good press coverage would also build awareness among potential program participants. PGCC and UM collaborated on a joint celebration at PGCC to recognize the generosity of the Hillman Family Foundation and introduce the Hillman Entrepreneurs. The hosts invited the Governor and people from his office, State legislators, County Council members, friends of the institutions, employees and friends Southern Management Corporation, and friends and family of the Hillman Entrepreneurs.

Well over 100 guests representing these groups attended and the event generated significant local print coverage. Both Drs. Mote and Williams spoke about their commitment to this important program. David Hillman described his vision and inspired the students to excellence. This event launched the process of the students knowing what it meant to be Hillman Entrepreneurs.

From this experience, the team learned the importance of creating an "image" for the new endeavor.

## **Challenges**

Degree Options - PGCC offers a variety of degree options not all of which prepare students to transfer to a four-year institution. Some interested and talented applicants were not prepared to transfer to UM, based on the AA degree they were pursuing. The team had to decide whether to recommend selection of students pursuing a terminal two-year degree and redirect their career options to a transferable degree or to pass up otherwise qualified candidates. As it happened, one student who was enrolled in a terminal degree was selected, but then dropped out. The team concluded that a selection criterion should be added which stipulated that candidates had to be in transferable degree programs.

Allocating Scholarship Funding - Clear criteria for assessing financial need were not yet in place and not all the students selected for the Program had completed the FAFSA. When exposed to

the arcane calculations relating to “cost of education,” Hillman decided to provide all PGCC Hillman Entrepreneurs with full tuition scholarships as well as books. At the same time, he stressed that his money was not to offset otherwise available State or federal aid or pay for living expenses.

In the first semester of the program, the inconsistency in available financial information about the students ultimately led to an imbalanced allocation of scholarship funding. With the decision to fund at 100% for the students at PGCC, there were still issues for students receiving other financial aid, because Pell and State funds can be used living expenses. In an attempt to manage these goals, a “last-in” method was used to make scholarship allocations for the first semester. Unfortunately, this model penalized the Pell students—the neediest students in the program—a result inverse to Hillman’s intent.

Neither the working group nor Hillman was aware of this imbalance until an analysis of expenditures was performed mid-way through the semester. The analysis also revealed that funding for books was uneven. PGCC’s accounting procedures required receipts for reimbursement, but some students had purchased their books before Hillman changed the funding strategy. When Hillman learned how wide the gap was between his intent and reality, he agreed to a revised “first-in” strategy beginning with the Spring Semester, 2007.

The team concluded that the FAFSA should be required of all applicants in the future. The financial aid staff ensures that State and federal financial aid for which students are eligible is made available to pay for allowable expenses other than tuition, fees and books. With all students completing a FAFSA, complete knowledge of student financial situations should help, but the method for scholarship allocation among all sources of funds is not yet fully defined.

At UM, funding 100% of tuition and books will not fit within the budget due to much higher tuition costs. No system is yet in place for dealing with scholarship allocations at UM. For the incoming class in the fall of 2007, decisions will be made on a case by case basis, hopefully yielding enough insight for greater structure in the future.

Definition of Cohorts - The concept of “cohort” in the program design contemplated clear sets of students who would complete their two-year degrees together and transfer to UM in the fall semester of each year. In reality, students – especially those with myriad financial and life challenges – were not ready for transfer at neatly designed points in time.

Would only students on a clear path to graduation with their specific cohort be accepted or would cohorts blend to accommodate the reality of the students’ needs? Maintaining strict cohorts could assist in bonding within each class<sup>2</sup> but could eliminate some of the best applicants. Blending cohorts might actually create a bonding across class boundaries, creating broader investment by the students into the program rather than just into an individual cohort. On the other hand, such blending could dilute social connections among the students and impede their deeper bonding based on common experiences.

When polled, the first set of students concluded that they could build on their “family” and that they would want the opportunity they were receiving to be extended to any qualified student. Their final conclusion was that they would and could accept new students into their group.

Prior to completing the second round of selections, the team decided that more flexibility was in order and new applicants were recommended either for the first or the second cohort based on their qualifications and readiness for graduation from PGCC.

Systems Management - Another challenge the team faced was the lack of systems in place as the first class entered. Baseline data were not collected for each student. During the first semester, three of the initial 20 Hillman Entrepreneurs dropped out of the program, but the working group has not been able to fully assess the causes. Understanding why the drop outs occurred can help prevent future losses and can better inform the selection process. Retention will be a key measure of program success in the evaluation.

At the outset of the program no financial tracking systems were in place. These were developed gradually in the course of the first semester, but their initial absence led to some errors in execution of the MOU. These included an unmet promise to provide administrative support as an in-kind contribution as well as a misunderstanding regarding the full dedication of the mentor’s time to the program without requiring additional duties that diverted a portion of her time. There were also some minor unallowable uses of funds to create marketing materials for recruitment when there was no budget item for such expenses within the MOU. Because at the outset there were no routine reporting mechanisms in place, the working group was slow to recognize these divergences from the MOU.

Once the issues were brought to light, it was necessary to make some quick adjustments to align with the donor’s wishes. President Williams was quick to make the necessary corrections so that the program would be in complete alignment with the MOU. Compliance to the requirements of the MOU is an important element of success of a new program in start-up mode and thus an early lesson learned was the importance of creating systems and processes early. Vigilant reporting mechanisms are critical to any program’s success and, ideally, systems should be in place before program start-up.

The MOU is silent about the fiscal consequences of dropping out of the program as well as dropping individual courses. Policy is not yet in place to address these problems. One approach under consideration would be to require students to pay for dropped courses when they are retaken.

Students’ tuition is different based on the number of classes taken at PGCC, so a policy was instituted whereby students can take up to 15 credits, a normal load, and receive full tuition (at PGCC). Taking more classes requires permission of the Program Director as this incurs additional tuition costs. New policies regarding tuition and financial aid will be needed at UM.

Recruitment - Another challenge faced by the new program was recruitment of Hillman Entrepreneurs. The program certainly accepts students with strong academic records, but places a higher value on entrepreneurial aptitude. After discussions with current Hillman Entrepreneurs,

the program directors learned that most students at Prince George's Community College associate scholarships with high GPAs and do not see themselves as candidates for scholarships.

Reaching the “average” – but entrepreneurial – student became a focal point for the program's marketing and recruiting campaign for the second cohort. Results from the initial baseline survey for the first cohort suggest that the program did effectively recruit students who have entrepreneurial experience, who have solid but not outstanding academic records, and a range of prior experiences in technical and higher education.<sup>3</sup> Program marketing materials were redesigned to highlight current Hillman Entrepreneurs and descriptions of the opportunity for entrepreneurial thinkers. Additionally, members of the first cohort were encouraged to spread the word and invite prospective applicants to weekly informal meetings of Hillman Entrepreneurs. This is an on-going challenge and will need additional attention as a more extensive marketing/recruiting program is developed.

Retention - Three students left the program during its first semester. Two of the three have continued to pursue their studies at Prince George's Community College; however, one has dropped out of school completely. The program and institutions need to address this problem, as the Hillmans are concerned. Their previous experience with a smaller scholarship program on campus left them with an expectation of 100% retention. Any “dropouts”, even those who continued at PGCC, seemed to undermine the potential for program success.

This lack of knowledge left the team uncertain as to what changes might need to be made to the selection process. To better understand the issues, the PGCC program director and the program evaluation team are attempting to complete in-depth exit interviews with the students who left. However, these attempts have been unsuccessful as of the writing of this paper. Informal discussions with the students provided the following insights:

- The program accepted some students who had terminal (non-transferable) degrees. Students who were enrolled in terminal (non transferable) degrees were advised they would need to change their majors, but were faced with the prospect of additional time at PGCC or UM as they completed requirements for a traditional bachelor's degree. One Hillman Entrepreneur graduated with the two-year engineering tech degree and decided he needed to get a full-time job after earning that degree so he could support his family.
- The students are regularly challenged by conflicting responsibilities among jobs, parenting and family commitments. Some employers do not give students the flexibility to take afternoon classes when the Hillman class is currently taught. One student who left the program mid-semester had recently gotten a new office job – a step-up from her previous blue collar and retail positions. However, she had difficulty gaining the approval necessary to attend classes during the workday given her new responsibilities.
- One student concluded that she was not a fit with the program, but her rationale is not clearly understood at this writing.

Process changes to address the above issues include:

- Students in non-traditional programs are required to switch to transferable majors prior to entering the program.
- Interview assessments include evaluating the students' ability to manage their entire school, work, life balance.
- The cohort structure has become more flexible, so that students can transfer to Maryland when ready, where they would join the existing Maryland cohort (Following this more flexible transfer policy, UM accepted the first Hillman Entrepreneur for the Spring Semester, 2007. He is pursuing Civil Engineering.); and
- Required classes will be scheduled at night.

## **Summer Placements**

The MOU contemplates ensuring that all students desirous of challenging summer jobs will be placed in ways that complement their academic experiences. The Hillman family has taken the lead in structuring the summer job program and it anticipates that many Entrepreneurs will be hired by Southern Management. As the placement program is still in development, it is too early to report on results.

## **Program Amendment**

As the program moved through its first semester, experience refined or altered some of the initial concepts. To formalize these changes, preserve institutional memory, and ensure consistency with Hillman's intent, an addendum to the MOU was developed and executed by the parties at the end of December. Adjustments were made to eligibility criteria, which limited candidates to:

- Maryland residency with intent to work in Maryland post-graduation;
- Citizens or permanent residents;
- Enrollees in a transferable degree program;
- Individuals committed to stay engaged with the program long term; and
- Individuals willing to complete the FAFSA financial aid application as well as provide extensive background data relevant to the long term evaluation of the program.

The revised scholarship funding approach at PGCC discussed above was articulated and use of program funds for tutoring was authorized on an as needed basis. Finally, the approach to evaluation of the program was formalized.

In order to preserve institutional memory as well as ensure that Hillman and the two institutions share a single vision, the parties anticipate that there will be further periodic addenda to the MOU as the program evolves.

In the course of developing the addendum, the working group recommended to Hillman that the formal Advisory Board be comprised of three representatives of each institution and Cheryl Hillman. Each institution was represented by the program managers (Rawlings and Thornton) and someone from institutional development (Ashworth from UM and for PGCC Brenda Mitchell, Director of the PGCC Foundation). The third representative for PGCC was John

Rosicky, Dean of Behavioral, Social and Business Studies and Rawling's supervisor. The third representative from UM was Rogers.

Formalization of this composition was not included in the addendum to the MOU, because the parties wanted to preserve flexibility to change, but Hillman approved this structure.

### **Preparing for the Move to UM**

One measure of program success is a smooth transition for all Hillman Entrepreneurs from PGCC to UM. Thornton – who formally became the UM program director in December 2006 in time to prepare for the transition – worked with Rawlings to create a collaborative environment. Thornton's experience with launching a successful and nationally renowned entrepreneurship program as well as her MBA from the Smith School, all but dissertation in music performance from UM, and a long career as a successful artist entrepreneur and university instructor made her an excellent choice for leading this new program at UM. As she joined the team officially, she started developing relationships with key people who are involved with transfer students. UM designated formal liaisons to the program from both the Admissions and the Financial Aid offices. These individuals became familiar with the program and are engaging with the students during the spring 2007 semester.

A priority was establishing an inviting UM environment ahead of the arrival of the first students. Thornton suggested three approaches to increasing Hillman Entrepreneurs' success:

- Through understanding their specific academic needs as they relate to the available options;
- By creating a comfort level for them with the new and large university environment prior to transfer; and
- By securing the facilities and other resources before the arrival of the first class.

Preparing the Students for Academic Success - UM has a number of Limited Enrollment Programs (LEPs), and even those that do not have limited enrollment frequently do have required courses that must be met before a student can be accepted into those majors. For example, students wishing to enroll in either the limited enrollment programs of the Clark School of Engineering or the Smith School of Business need to have taken specific gateway or preparation courses and achieved a specific GPA in those attempts. Therefore, Thornton began a quest to become a domain expert in the possible options students might have by studying the requirements for the various majors, speaking with academic advisors from different disciplines and becoming an academic advisor in-fact if not in title.

Transition - To achieve a smooth transition to UM, Thornton brought the Hillman Entrepreneurs to UM for activities while still at PGCC so that they would become comfortable with this potentially intimidating environment. As part of their class, Rawlings secured a van and brought the students for an afternoon of problem solving, frank talk about their goals and aspirations, and fun activities that helped them get to know each other.



A second visit to UM revolved around UM's MTECH Ventures sponsored annual Technology Start-up Boot Camp where more than 300 student, faculty and community attendees spend a day learning about all the core elements of becoming an entrepreneur and starting a business. Rawlings arranged for UM admissions advisors to meet with the students on-site so they could slip out of the meetings and have a one-on-one advising session with admissions directors.

Maryland has created a new program called Maryland Transfer Advantage Program (MTAP) where students can apply for a local community college and four-year institutions simultaneously for a smooth transition from the two-year to the four-year institution and appropriate course selection while at the two-year college. Hillman Entrepreneurs learned they could apply to MTAP and have the benefit of taking a limited number of classes at UM at a discounted cost.

Additional visits that are expected to become annual treks include the annual UM Business Plan Competition sponsored by MTECH Ventures for UM students, faculty and young alumni, and special speaker events such as the Tech Ventures Forum managed by MTECH Ventures and the Whiting Turner Business and Entrepreneurial Lecture Series managed by the Clark School of Engineering.

Preparing the Facilities and Other Resources - Having community space where the Hillman Entrepreneurs could relax, converse, study, meet, and just enjoy each other builds cohesion. PGCC had been unable to secure this kind of space yet, but Thornton felt at UM this would be crucial. Program needs include an office for meeting with students individually and in teams on a weekly basis and community space that could double as their classroom. The objective was a one-stop shop where they could spend their time outside of their other classes. Computers would add Internet access where students could work and check their email between classes. As a non-residential program, this space would serve as a place where the bonding would deepen. Thornton has met with the Facilities Director for the Engineering School and has received commitment for space that satisfies the program needs although the specific location is still under consideration.

### **Program Evaluation – Design and Initial Data Collection**

As noted above, the MOU calls for an evaluation of the program in year three, which is intended to serve as a basis for the decision whether to continue and/or expand the program. However, as of late summer of '06, nothing had been done to structure such an evaluation. To compensate for this gap, Hillman allowed the Maryland School of Public Policy to design the evaluation and collect the baseline data. In recent years, he had been making a \$50,000 dollar annual donation to the School, \$35,000 of which went to build an endowed Graduate Assistantship and \$15,000 of which was used to fund Graduate Assistant(s) supervised by Rogers. Rogers proposed that these students be charged with scoping out the evaluation, since she had been involved in the program design, but was not directly responsible for implementation. In agreeing, Hillman stressed that he wanted the evaluation to serve the short term goal, but also be longitudinal so that the program's long term impact could be assessed.

In September, Kristen Waters, a second-year masters student, and Nathan Myers, a first-year masters student with prior teaching experience, became the first graduate students assigned to the

Hillman Entrepreneurs Program to establish some baseline assessment tools and strategies for longitudinal studies.

Developing an Evaluation Methodology - A September 2006 meeting of the Hillman Advisory Committee yielded an initial evaluation framework focused on traditional measures of academic performance—such as GPA and completion, retention, and graduation rates—as well as other measures of program success, such as administrative effectiveness, alumni employment, and community engagement. Students’ entrepreneurial achievements were of special importance as measurable outcomes. Additionally, alumni participation in program recruitment and promotion was considered a critical component of the program’s future success as well as a gauge of its present ability to engage students.

Waters and Myers conducted a literature review, examining studies of entrepreneurship education, community college transfer programs, and disadvantaged and non-traditional college students. Given that students are particularly likely to struggle during their transition from community college to four-year institutions, the research suggested that the year of transfer would be a critical year for assessing the program’s success.<sup>4</sup> At the same time, a review of the literature highlighted the need for a greater understanding of the longitudinal impacts of entrepreneurship education.<sup>5</sup> Through a deliberate and longitudinal evaluation of program participants, the Hillman Entrepreneurs program seeks to fill some of these gaps.

The subjective nature of entrepreneurialism presented a further challenge: how does one define and measure entrepreneurial spirit?<sup>6</sup> The Hinman CEOs Program provided one methodological model for evaluating the development of the scholars’ entrepreneurial potential. Evaluators from the Hinman program use the Entrepreneurial Attitude Orientation (EAO), a 75-item inventory, developed by Robinson, et al<sup>7</sup> to measure entrepreneurial attitudes. The Hinman CEOs program augments use of the EAO with a business plan activity: students are asked at the beginning and end of their program to analyze the merits of a sample business plan and to decide whether to invest in the business. The evaluation team embraced the EAO and business plan activity with the intent of using the former to quantify growth in the scholars’ entrepreneurial potential and the latter to chart changes in their ability to apply lessons learned from their entrepreneurial training.

Developing an Evaluation Methodology - A September 2006 meeting of the Hillman Advisory Committee to consider program assessment concerns yielded an initial evaluation framework. The Advisory Committee was interested in traditional measures of academic performance—such as GPA and completion, retention, and graduation rates—as well as other measures of program success, such as administrative effectiveness, alumni employment, and community engagement. Entrepreneurial achievements, either through a scholar’s own ventures or within an existing organization, were of special importance. Additionally, alumni participation in program recruitment and promotion was considered a critical component of the program’s future success as well as a gauge of its present ability to engage students.

Moving from Methodology to Data Collection - In developing the data collection plan, Waters and Myers sought to balance quantitative and qualitative approaches. University of Maryland’s College Park Scholars—a two-year living learning community for academically talented students that offers specialized coursework around twelve themed programs—provided a key model for

qualitative data collection considerations. To address the interdisciplinary nature of the twelve programs, each Scholars program director has developed a “big question”<sup>8</sup> to prompt focused student reflection on the holistic meaning of their program. For example, students in the Business, Society and The Economy (BSE) program are asked, “During your two years as a BSE student, you have been exposed to ideas about business, its impact on society, and the importance of understanding the significant managerial challenges of the 21<sup>st</sup> century. What have you learned about business and management in a changing and diverse global economy?”

According to Scholars director Grieg Stewart, graduates become better “ambassadors” for the program, more effective job interviewees, and more successful entrepreneurs by being able to tell their stories in a coherent and compelling manner.

Another key model for the evaluation was the University of Maryland’s Gemstone Program, an innovative four-year interdisciplinary learning program where students conduct research exploring the interdependence of science and technology with society. Angela Dawson, coordinator of Gemstone’s self-assessment, helped the team conceptualize a “mixed methods” evaluation approach<sup>9</sup> that would blend the qualitative measures suggested by the College Park Scholars model with the kind of clear, coherent quantitative measures suggested by Gemstone. One key insight provided by the Gemstone program was that quantitative data should be collected for a limited number of discrete indicators and aggregated to provide an “at-a-glance” comparison of trends between student cohorts. Gemstone annually compiles this quantitative data into a matrix through which trends can be easily identified – an approach that the Hillman evaluation team opted to emulate.

Refining the Data Collection Plan - After articulating its methodology, Waters and Myers presented their working data collection plan to the Advisory Committee in early November 2006 and received approval from the group. The data collection plan proposed study of the following categories of indicators: baseline measures; student achievement in year(s) prior to graduation from PGCC, in first “post-transfer” year at UM, and prior to graduation from UM; post-graduation Hillman Entrepreneur professional achievement, community involvement, and commitment to the Hillman Entrepreneurs program; program exposure/impact; and administrative performance.

To capture data on each of these groupings of indicators, the evaluation team decided to employ a variety of instruments aligned with key program milestones, including:

- *Baseline Survey* – captures family and educational background; work, entrepreneurial and community experience; time management, and self-reported entrepreneurial knowledge. Supplemented by students’ completion of Entrepreneurial Attitude Orientation survey and sample business plan, a component of the survey revisited at the end of the program.
- *Transcripts/Applications* – provides record of previous school achievement and previous college experience.
- *Program Summary Data* – summarizes completion and retention rates, GPA, and factors such as the number of students applying to the Hillman Entrepreneurs program.
- *Exit Interviews with Drop-Outs* – provide critical information useful to selection process and program development.

- *Student Satisfaction Assessments* – capture qualitatively, student satisfaction with various aspects of program and self-awareness of progress toward program objectives; provides information for end-of-year survey (and other quantitative data collection).
- *End-of-year Survey* – serves as quantitative counterpart to student satisfaction assessments; focuses on student satisfaction, progress towards program objectives, and entrepreneurial knowledge.
- *Annual Interview with Donor* – evaluates donor satisfaction with program’s financial efficiency, leadership, coordination between colleges, and program impact.
- *Post-Internship Survey* – captures student learning and skill building resulting from internships.
- *Capstone Program Self-Assessment* – optional assessment asking students to synthesize curricular goals and program experiences (e.g. how have your classes contributed to your overall development as an entrepreneur?).
- *Alumni Survey* – measures long-term impact of program through graduates’ contributions to their communities, the development of the Hillman Entrepreneurs program, and financial commitment to give others the same opportunity they had.
- *Website Data* – track usefulness of data made available, number of hits, feedback from visitors.

Developing the Baseline Survey Instrument - The first step of putting the evaluation plan into practice was to develop a survey instrument to collect baseline data from the Hillman students. The team based its initial survey design on instruments used by Boston College, the University of New Hampshire, and other institutions. A survey from the University of Maryland’s Center for Information and Research on Civic Learning and Engagement (CIRCLE) helped to clarify the team’s approach for measuring the Hillman students’ community engagement. Finally, to develop performance indicators to track growth in the students’ entrepreneurial and business skills, the evaluation team referred to the Consortium for Entrepreneurship Education’s list of National Content Standards of Entrepreneurship Education.<sup>10</sup>

Drafting the baseline survey instrument presented additional challenges. A consultation with Dr. Janet Schmidt, an assessment specialist at the University of Maryland, greatly helped the team reduce the survey’s length, eliminate item redundancy, and improve the survey’s sensitivity toward the Hillman students’ cultural and developmental contexts. Schmidt also encouraged the evaluation team to view the survey as a “living” document that would evolve as the evaluation progressed. As a result, the team decided to regard the first two administrations of the baseline survey as “pre-pilot” and “pilot” phases, from which it would gather feedback to improve future surveys. Finally, the team’s conversation with Dr. Schmidt reiterated the strength of mixing qualitative and quantitative measures: that no single indicator or instrument needed to stand alone in the evaluation and that qualitative data could help to explain quantitative results.

Survey Implementation - The evaluation team administered the baseline survey to the first cohort of students in early February 2007. Through this process, the team became increasingly aware that bridging two separate institutions of higher education will continue to present challenges for communication and coordination during the evaluation. The choice of online survey software allowed Hillman students to complete surveys and communicate with the program evaluators without leaving the PGCC campus. Issues of confidentiality also became prominent as the

evaluation process evolved. While completing the Institutional Review Board (IRB) process at the University of Maryland, the team became more aware of a need to balance the goal of completing the program evaluation with a consideration of when to allow the Hillman students to opt out of survey questions that may conflict with their desire for privacy – especially when a proposed condition of students’ tuition support is a commitment to participate in program evaluation activities.

Highlights of Initial Findings from Baseline Survey - The baseline survey, administered to the first cohort of 19 students,<sup>11</sup> revealed that the Hillman Entrepreneurs are recruited from a variety of educational backgrounds and pursue diverse academic goals. Fifty-eight percent of Hillman students had received some form of postsecondary education prior to enrolling at Prince George’s Community College, with 21 percent having previously attended a trade or technical school, 21 percent having attended two-year colleges, and 32 percent having attended four-year colleges.<sup>12</sup> These students expressed an interest in exploring a number of academic majors at the University of Maryland, with the most popular being business administration, finance, information systems, sociology and engineering. Finally, 63 percent of the Hillman Entrepreneurs indicated that they would be surpassing both of their parents’ levels of education by completing a four-year college degree.

Within the survey, students also reported that they expected the Hillman program to help them accomplish a number of ambitious personal and professional goals. These goals for the program include the success of their fellow students; producing results; starting a business and being able to run it with confidence; and getting an education. Five years from now students envision themselves achieving goals such as becoming a senior manager; running and selling a business; starting a second business; being a successful entrepreneur; making a difference in the lives of children; and completing a bachelor’s or master’s degree.

The baseline survey confirmed that many of the Hillman students pursue their goals with limited financial resources. When asked to describe their financial status after receiving the Hillman Entrepreneurs scholarship, 42 percent of students report “getting by month to month.” No students report living beyond their means, but two students have significant debt and one student has a small amount of debt, made manageable through a part-time job. The majority of students report either being able to pay bills on time, feeling financially secure, or having some savings. One student writes that the scholarship, “has allowed me to not have to make the decision to take care of household obligations or pay for school.”

More than fifty percent of students have others who financially depend on them. Seven students support children, two help to support parents, two support relatives abroad, and one supports a spouse. Almost half of the students work for pay over 20 hours per week off campus. One quarter of students work for pay between 11 and 20 hours on campus. Six students spend between 6 and 10 hours per week commuting and another four spend between 11 and 20 hours per week commuting. Over 70 percent of students spend at least one hour per week praying or meditating. Slightly less than half of students participate in student clubs or groups. The majority of students reported spending no time partying or playing video/computer games.

Despite their busy schedules, the Hillman Entrepreneurs reported high levels of community engagement. 68 percent of the students reported having volunteered or completed community service without pay over the last 12 months. Students also reported volunteering an average of 8.8 hours per month and volunteered for reasons such as enjoyment (90 percent), wanting to give back to the community (79 percent) and as part of their responsibility toward others (58 percent). Overall, the first cohort had been engaged in a variety of community groups within the previous twelve months, such as religious groups (58 percent), civic organizations (42 percent), and organizations for youth, children, and education (58 percent). Given that the Hillman Foundation expects students to contribute to the program's success as alumni, students' current levels of community engagement may predict strong alumni involvement in the future.

## **Conclusion and Prospects for the Future**

The Hillman Entrepreneurs Program is in its infancy and yet its potential is evident. Programs that change lives have far-reaching impact on individuals, institutions and communities. Clearly, starting such programs is not easy and challenges with this program have and will continue to come. Even so, this journey is already rewarding. The impact on students is already being noticed. Success with the pilot can extend the program's reach to other local communities.

The principals have every hope that this new model might inspire other four-year institutions across the country to seek out their own sister two-year colleges and start blending the boundaries and breaking down the walls that divide institutions. It starts with a generous donor willing to take a risk on talented students overlooked by traditional merit scholarships. It continues with the dedication of open-minded and committed college and university personnel who take on the challenges and difficulties that are a part of starting any program.

The Hillman Entrepreneurs Program seeks talented entrepreneurs from every major who will commit themselves to graduating and becoming successful entrepreneurs, but it is not only the students who must be entrepreneurial. The program designers and day-to-day managers need to be entrepreneurial too. They have to forge new ground and think like an entrepreneur, constantly improving on the traditional educational model. At PGCC and UM, something special is happening with the new Hillman Entrepreneurs Program. The team feels responsible for program success and for promoting the concept to other schools. They are trying to build a better program in an entrepreneurial way, while remaining mindful at all times of the Hillman vision.

## **Appendix I - Student Profiles Cohort One**

### **Male, Engineering**

This Hillman Entrepreneur is very goal oriented. He emigrated with his parents from the Philippines in 2000 at the age of 16. He was accepted to local private university, but couldn't afford it so attended PGCC. He has made money in various creative ways including sales, snow shoveling, yard work, and paper shredding. He wants to have a business that provides jobs for others and perceives America to be a land of almost unlimited opportunity.

### **Male, Engineering**

This Hillman entrepreneur is fascinated with aerospace and business. He was home schooled and so is now heavily involved with student life including working on events planning for school events. He also successfully competed to become Director of Finance/Budget for the Student Program Board. His small business printing business cards and flyers for his uncle and other customers provides entrepreneurial experiences while he is a student.

### **Male, Computer Engineering**

This Hillman Entrepreneur is a Nigerian native who has an artistic and musical talent. He loves innovation and had two years of engineering education at the Federal University of Technology in Nigeria before coming to the US. He has worked in a camera store and supervised a photo lab. He has received photography awards from Konica, American Express and Fuji Film. He has a small photography business that he hopes to expand to cover all aspects of photography as well as imaging supplies.

### **Male, Computer Engineering Technology**

This Hillman Entrepreneur made money selling candy while still a teen. He wrote his first Business Plan for a hot dog stand at his church by researching how to write it at a local library and then opened the stand and made a profit. He has had a variety of jobs since 2002 and is now employed by the PGCC computer center. He is very involved in church where he is a youth pastor and wants to become "a successful business owner, a respectful citizen and a role model for others." He sees himself starting an online store retailing merchandise at wholesale prices internationally.

### **Male, Computer Engineering Technology**

This Hillman Entrepreneur is a disabled Army veteran, who has a lawn care business and has worked seasonally for a construction company since 1989. He is married with young daughter. He took some courses from UM while in Korea, but no one has previously encouraged him to get an education. His goal is to have a computer store and provide access to computers for people who don't have one.

### **Male, Computer Information Systems/Honors Program**

This Hillman Entrepreneur served six years in the United States Navy. He works two jobs to help his mother buy home. One position is with a small construction firm where he has gained experience in running ventures. He wants to go on to get a master's degree from Harvard or Wharton and then to go into Real Estate Development. In the Navy, he earned extra money by

ironing for other sailors and this motivated him to become entrepreneurial. He is married with one four year old son.

### **Male, Computer Information Systems**

This Hillman Entrepreneur emigrated from Sierra Leone in 1991. He attended a local Historically Black University (HBU), but dropped out due to financial constraints. He is employed full-time as a Computer Resource Technician at local university and realizes that to get ahead he needs to complete his education. He consults in network development and problem solving for small businesses which he wants to develop into consulting firm.

### **Female, Computer Information Systems**

This Hillman Entrepreneur served in United States Army and in the DC Air National Guard. The New York City native started selling toys and clothes in flea markets after finishing high school. With more than six years experience in network systems, she recently started a help desk and systems administration support consulting practice for business and government clients.

### **Male, Economics/Honors Program**

This Hillman Entrepreneur was accepted to a 5 yr combined BA/MBA program at Hampton University and attended for one summer but did not feel like he fit well in the environment so did not continue. He works at two radio stations and is involved with church where he tutors and mentors for his ministry. He wrote his first business plan at the age of 14, started a video production company while in high school to record special events and launched and produced a morning news program for his high school. Has been selected to represent PGCC at a globalization conference in Austria (one of two students) and is the editor of the Owl, PGCC's student newspaper. He sees himself completing MBA and then plans to launch a media firm.

### **Male, International Business/Honors Program**

This Hillman Entrepreneur emigrated from Sierra Leone in 1985 at the age 9 to live with an uncle. In high school, he had candy and carpet cleaning businesses. He moved to Maryland to be near family where he has had a series of domestic business ventures -- a marketing company from '93 to 99, a realty business targeted to the African and Caribbean communities, and a transportation business since 2001. He also established a music studio in Sierra Leone. He competed and won the 2006 Federal Reserve Bank College Challenge with team from Prince George's Community College. He is married with two daughters.

### **Female, Business**

This Hillman Entrepreneur served in the Marines for eight years, four on active duty in a highly technical, male-dominated field of Computer Aided Design. She was chosen to lead groups of male technicians both in the Marines and at current job as CADD Coordinator.

### **Female, Sociology/Business**

This Hillman Entrepreneur is employed as a secretary in a high school guidance office. Divorced, she is supporting her 9 year old son, carrying a full-time academic load and working full time. She refuses to take advantage of social service benefits potentially available and wants to earn a master's degree after completing the program. Subsequently, she wants to open a group



home for runaway, abused and pregnant kids. She promised her grandmother on the grandmother's deathbed that she'd get her education and give back into the community.

### **Male, Business/Honors Program**

This Hillman Entrepreneur focused on basketball in high school and only began to consider a different future when it became clear he did not have the skill level for college or professional ball. He got a real estate license and unsuccessfully pursued real estate investing. He had experience where someone committed real estate fraud and he learned from that experience that he needed an education to succeed. He won a Congressional internship on a "cold" call so has the gift of negotiation. He is very serious about getting a good education and having a principled future.

### **Female, Business**

This Hillman Entrepreneur returned to school after ten years in the work force. She continues to work in HR at a DC law firm and has shown initiative solving firm's staffing problems in number of ways. She is appreciated at her work but sees the lack of a degree as major obstacle to her success. She regularly helps friends find jobs and improve their marketability using her HR skills and wants to turn this work into a professional staffing/training/image agency. She has already taken image consulting classes with local expert in preparation for this entrepreneurial venture.

### **Female, Business**

This Hillman Entrepreneur started at PGCC immediately after graduation from high school, but had to drop out due to financial constraints and the birth of her son who is now 11 years old. She worked in marketing for the DC Lottery for a number of years and now works in the Federal Student Aid office but has goals of leaving government work for private enterprise. She won first prize in the PGCC Bernard Collegian Center's business plan competition and second prize in the PGCC art show for abstract design. She wants to start a consignment shop in Southern Maryland and has done a thorough market research of the idea as well as filing the incorporation papers.

### **Female, General Studies/Psychology**

This Hillman Entrepreneur is a New York native who was orphaned early in life. At 17, she adopted her brothers so the state would not separate them and she has been the primary bread winner since. She moved to Maryland to get her brothers out of New York City. She works two full-time jobs and is a work study student at PGCC. In spite of responsibilities, has demonstrated leadership by establishing a branch of the "Council for Unity" to reduce the violence among ethnic groups in NYC while in middle school. She sees her future as a nontraditional entrepreneur, preferring to develop non-profit organizations to prevent violence in African American communities. She plans to finish her bachelor's degree and then pursue doctorate degree in psychology.

### **Female, Elementary Education/Honors Program**

This Hillman Entrepreneur is married with two children, one in high school the other in college. She attended Howard University in early '80s but left school to join the Army as a Military Police Officer. She has held a variety of administrative jobs over the years. In 2001, she formed her own business, Total Knowledge Tutorial Services, Inc., which only lasted a few years. She

realized through that experience that she needed more education to succeed. She has part-time jobs at PGCC and at a secondary school where she tutors in math and reading. She wants to complete her BA and then go into this business fulltime.

#### **Female, General Studies**

This Hillman Entrepreneur's entrepreneurial experience goes back to high school, where she turned candy selling business into a thriving concern requiring the help of two assistants. She wants to own and manage real estate and has already purchased her first rental property with proceeds from earlier businesses. Her next venture is to start a Laundromat business. She wants to complete her degree and expand her real estate holdings.

#### **Female, General Studies**

This Hillman Entrepreneur has an inconsistent academic record but has demonstrated entrepreneurial drive. She attended a healing arts institute in Arizona to start a business in that area and turned what she had learned into a business. She is also getting trademark protection on guided concentration CDs she has developed.

### **Spring Additions to Cohort One**

#### **Male, Computer Information Systems**

This Hillman Entrepreneur has Jamaican roots, is very hard working, and is very interested in the computer gaming industry. His goal is to start a store that sells new and used electronics for computer entertainment enthusiasts. The store would have a sales area, a gaming section for gamers to play video games, would serve food, and also offer specialized clothing of interest to gamers. Business partners are identified and are planning the venture. He volunteered for three years at the Democracy Collaborative by maintaining its web site and doing community outreach.

#### **Male, Electrical Engineering Tech**

This Hillman Entrepreneur is from a working class family and will be the first to have a college degree. He has been working since age 14 and wants to get electrical engineering degree. Prior to being selected, was paying his own way through school. He attended Howard University for one semester but had to withdraw due to the cost. This student is working with neighbor to obtain a patent on a new invention and reports loving inventing things. He wants "to introduce new technologies or find new ways to use existing technology." Because of the current major at PGCC that results in a terminal A.A. degree, he will have to change his major to a transferable degree upon entering the program.

#### **Male, Business**

This Hillman Entrepreneur was an undisciplined high school student who graduated with no real professional aspirations. His Mother suggested that he go to live with his father, a police officer and that role model helped him focus. Working as a steamfitter's HVAC apprentice convinced this young man he needed an education and life goals. He took a position as an independent financial consultant gaining exposure to financial products and services. He sold mortgages door to door on commission and loved the independence of the job. His current goal is to start a financial services company that will provide investment opportunities to lower and middle

income people who do not have access to good financial advising and who, as a result, under invest their savings. This Hillman Entrepreneur sees real estate investment as the road to financial independence.

### **Male, Business**

This Hillman Entrepreneur came to the United States from Korea at the age of three and is now a US citizen. His immediate family members are small business owners and operators so he has a history of entrepreneurial ventures in his background. He established an auto service center with his brother and worked there for five years as a service manager, but was not challenged and became dissatisfied over time. He realized that he needed an education and so attended a variety of local two and four-year institutions looking for a school that was a good fit until he enrolled at PGCC. At his current job, this Hillman Entrepreneur is getting experience in government affairs and politics. He wants to work in corporate America before starting his own business and is considering eventually returning to the automotive industry for his venture.

### **Female, Business**

This Hillman Entrepreneur joined the Army after high school and also earned a certificate in business from an unaccredited business college. She is married with a child and has 17 years of sales and marketing experience. She is dissatisfied in her career and has been working diligently as an inventor, trying to develop successful products as a means of achieving economic independence. She has a patent pending for her "Unique Seat," a comfortable outdoor chair for camping that she developed, and has negotiated a licensing agreement with a major outdoor equipment manufacturer. She has also won or gained recognition in several new product competitions. Her unique experience developing and executing a new product as well as her professional experience make this Hillman Entrepreneur a valuable addition to the cohort.

### **Male, Business**

This Hillman Entrepreneur is multi-talented, well-traveled, and is bi-lingual in Spanish and English. His first business venture was while in middle school where he copied and rented out Japanese Anime tapes. He made a substantial income until he learned about copyright laws at which time he immediately closed down operations. In high school, he was a wrestler, and he also spent 4 1/2 years as a volunteer in the civil air patrol where he participated in search and rescue missions and commanded a troop of 10 non-English speaking fellow volunteers. When the squadron lost its quarters and all but three of its members, he found a new location and rebuilt the squadron to full strength in six months. This Hillman Entrepreneur became an Independent Business Owner through an I-Commerce program that taught him a lot about running an internet business but the effort was taking too much away from his studies and was undercapitalized, so he is no longer pursuing this effort. This Hillman Entrepreneur wants to have a viable business in place before he graduates from UM.

### **Male, Theater Arts**

This creative Hillman Entrepreneur graduated from high school in Oklahoma but came to Maryland to be with family on his father's side for college. He won a four-year music scholarship at UM to perform in the band as an accomplished tuba player, but turned it down because theater was a greater interest. This student has been torn between focus on the arts and finishing his education. He started at PGCC where he was selected for the Disney cooperative

program. He stayed in Florida a total of three semesters in this coop program. He has worked on a theater production with a former teacher and managed a coffee store where he reorganized operations and doubled the profit in two months. He realizes he needs an education in the performing arts and has recommitted to pursuing a degree that will lead him to achieve his artistic dreams. Currently, he is considering partnering with his grandmother in real estate or coffee shop.

## **Cohort II**

### **Male, Engineering**

This Hillman Entrepreneur pursued his entrepreneurial aspirations in high school by starting a photography business. He had a steady clientele and also created and sold an interactive photo album CD ROM his senior year of high school. He had a computer repair business in high school with \$20,000 worth of equipment and was an aide in the computer lab. He sees himself as an inventor. He belongs to a PGCC college-wide forum that is an advisory body to administration and is he is the advertising manager and photo editor for the student paper, the Owl, working on commission. His efforts have significantly improved advertising revenues. He has a computer repair and electronics certificate but does prefers going to work for an engineering firm for a period of time before starting his own business.

### **Female, Pre-med**

This Hillman Entrepreneur wants to become a leader in the field of medicine. She was born in Ghana and always showed talent and dedication being voted most likely to succeed in middle school and, in high school, was voted most talented. She writes and paints and one of her poems will soon be published. She organized a successful fashion show for spirit day at PGCC last year and is leading that effort again this year. While she has no specific track record with an entrepreneurial pursuit, she has lofty aspirations and her medical career could lead to a need to being entrepreneurial.

### **Male, Nursing/Pre-med**

This Hillman Entrepreneur had an outstanding 4.0 GPA high school record in Nigeria and was valedictorian of his class. He has a venturesome temperament and wants to work with like-minded people through Hillman Entrepreneurs Program. He wants to start a staffing agency for health care professionals and plans to complete the nursing associate's degree to earn money while pursuing a biology degree at the University of Maryland.

### **Male, Computer Information Systems**

This Hillman Entrepreneur has been attending PGCC off and on since 1994 and his academic record is inconsistent. This is a working entrepreneur who opened a clothing store immediately after high school. He now has two businesses: Cleancom, a cleaning service with a staff of 5 and Realstar Properties. He is Vice President of Cleancom, a company that has 30% annual growth. He is also a managing partner at Realstar, a company with revenues of \$1.425m in 2006. He was named a finalist as the "2005 National Real Estate Investor of the Year." He reports being grateful for the successes and failures that he has had, but is ready to become more polished and professional. He wants to go from being a good entrepreneur, leader and partner to becoming a

great entrepreneur, leader and partner. He returned to school to participate in the Hillman Entrepreneurs program.

### **Male, Computer Information Systems/Accounting**

In high school, this Hillman Entrepreneur was consistently in the top 5 in his classes resisting peer pressure from friends to take drugs and commit robbery. He has a job as sales representative for Vector Marketing, a door-to-door cutlery sales company and a second job as a custodian. He volunteered two summers with the Democracy Collaborative where he went door to door. This helped him overcome shyness. He shares a dream of opening a computer gaming store with another Hillman Entrepreneur. He attended a local unaccredited technical school for one year but transferred to PGCC because of cost and accreditation. He understands that he needs an education to succeed.

### **Male, Accounting**

This Hillman Entrepreneur's family moved to Greenbelt to benefit from a better school system. As a result, he went to Eleanor Roosevelt High School, a top school in the area, played football and was inducted into the National Honor Society. His Father owns a music studio in Nigeria where he recently moved. This student and his brother each started their own music label producing beats for rappers, a lucrative scene. They bought equipment and set up shop in their basement. This is a highly principled young man who wants to contribute to Prince George's County, especially to his old neighborhood. He mentors his younger brother and volunteers at church setting up sound equipment for services.

### **Male, Business**

This Hillman Entrepreneur was referred by one of the PGCC business faculty. He was reluctant to apply for a scholarship because he likes paying his own way, feeling that by doing so, he works harder. He overcame shyness and a lack of confidence to start a catering business with 10 recurring clients. He hires staff and does events for up to 200 people. He wants to start a business and a non-profit like the Freedom Forum. His parents are from El Salvador.

### **Male, Business**

This Hillman Entrepreneur has a long history of entrepreneurship beginning at age 12 with a summer lemonade stand where he increased daily profits by switching to a higher quality lemonade eventually making \$800 in revenues. In high school he was a successful event planner and founded a mentoring organization, "Brothers Reaching Out to Help Each Reach Success (BROTHERS). He also founded a company called New Era Productions. He started college at Rutgers but dropped out to go to New York City to do promotions for Universal Music through New Era Productions. He currently does promotions and plans events and has an NFL player as a client. He formed and wants to build Relentless Corporation into a full service marketing and management consulting firm. He is Maryland born and bred and is committed to the State.

### **Female, Accounting**

This Hillman Entrepreneur's father has a small, successful factory in China with 20 employees and relatives here in the United States who have a restaurant. She worked in China in a bank and has worked here in the restaurant. She is attending school in spite of parents' opposition having come to the United States to join her husband who has encouraged her to pursue her dreams. She

started PGCC with ESL classes and still has language difficulties, but is improving. She wants to go into business, but does not know what area of business to pursue. She is pursuing a business degree and wants to get more experience before deciding what to do entrepreneurially. She seems driven, but shy.

### **Male, Business**

This Hillman Entrepreneur is self-supporting. He attended a local night school (thought it was too easy) and also another two-year college before coming to PGCC. He bought a house with his mother to be near family. He rose from the position of salesman to Sales Manager in a single year at the age 19. He is now a Psychiatric Technician. He has an incorporated business, Station One, with friends and bought \$40,000 in recording equipment. He has recorded a couple of artists and marketed them to big labels. He left Station One because of the partners' treatment of the artists and wants to have his own recording label. His academic record is consistent except for one semester where he left abruptly due to family problems in his family home of Panama.

### **Male, Business**

This Hillman Entrepreneur is from Pakistan. His Father had a restaurant in Florida, which failed and subsequently a gas station which he operated successfully and subsequently sold. He worked in his uncle's accounting business for three years and worked approximately 25 hours a week at Chevy Chase Bank where he was number eight in his District for referrals. He is currently at Bank of America where he moved for better pay and location. He lives at home, contributes financially and is also paying for his own education. He researches the stock market and day-trades having built a portfolio from \$500 to \$10,000. He wrote and received a response from Warren Buffet and wants to have his own full service brokerage ultimately.

### **Male, Business**

This Hillman Entrepreneur has already been accepted into University of Maryland but was told he needs another semester of pre-requisites to be admitted to the business school. He attended 1 ½ years at Hampton University. He had a lawn care business in his youth, created business cards and flyers and had 50 clients. He passed the business on to younger boys. He wants to start a non-profit for at-risk youth. He bought investment property in Baltimore at 21 and is renovating the property. He devised an incentive program where he worked and received recognition for the improvement in morale. He decided to come back to school because of the Hillman program.

### **Male, General Studies**

This mature Hillman Entrepreneur attended University of Chicago and NYU years ago but did not complete his degree. He spent his career in workforce development, adult education and youth development for non-profit and for profit enterprises. Now he has his own consulting firm which specializes in organizational development, human resource outreach and recruitment, youth development and training program design but without a degree, he sees limitations to how far he can go with his career. "My social entrepreneurial vision is to stimulate entrepreneurship and business development amongst new immigrants and old residents who now live in the economic margins. I envision creating business development models at the community-based level that can be replicated across the country, so that people can meet local market needs and thus stimulate growth and renewal for themselves and their community." Participation in the Hillman Entrepreneurs Program would allow him to come back to school and realize his dreams.

**Female, Sociology**

This Hillman Entrepreneur is a ward of the state being raised by her grandmother. She is very determined to succeed and has a small business teaching Japanese to young children in the summer. Over two years, her business has more than doubled and pricing has changed to make the enterprise lucrative. She is the President of the Psychology, Education Collegian Center and wants to go beyond baccalaureate to M.A or Ph.D. She plays the clarinet, is a Junior ROTC 2<sup>nd</sup> Lt. and is the 1<sup>st</sup> generation in her family to go to college.

**Female, Criminal Justice**

This Hillman Entrepreneur is a passionate adult dean's list student who sees how a lack of guidance and poor environment has impacted her life. She had baby in high school and her boyfriend was murdered. Now she wants to start a non-profit to provide guidance to young people that she lacked. She produced a beautifully written essay on how her non-profit will reduce teenage pregnancy, teen violence and school drop outs. This single parent was on welfare but worked her way out. She sees how perseverance has gotten her far.

**Female, Business**

This Hillman Entrepreneur is a highly motivated and dedicated woman. She has been dedicated to being an entrepreneur since her youth and left a lucrative Fannie Mae job to pursue her own real estate business. She now owns three investment properties and has earned her real estate license. She trained as an EMT/Firefighter and currently works for Prince George's County Fire Department. The flexible schedule allows her to pursue school and her business ideas. She seeks out business seminars, training and support organizations and organized a real estate investing group.

**Male, Music**

This Hillman Entrepreneur is a very talented, driven and principled young man with a clear vision of entrepreneurial goals. He went to a special music school in Washington, DC, the Duke Ellington High School, but transferred for his senior year when his parents' break-up made it difficult to afford tuition for Ellington. Neither parent supported his desire to attend college so he has paid for college on his own. He is passionate about music – plays piano and writes hip hop and R&B music having started writing music in high school. He had to walk two to three hours to music studio because his father did not support his efforts, preferring that he go into the military instead. He has written for nationally known artists and was considering focusing on this but decided to gain more knowledge through education. He has written and produced plays for a local music school and mentors young adults who he encourages to “follow their dreams.”

**Female, General Studies**

This Hillman Entrepreneur is a very artistic, achievement-oriented, and business-minded young lady. She completed the International Baccalaureate program in high school, a very challenging and competitive program. She studies voice and toured with Suitland High School's choral ensemble. Her Mother and younger brother are both disabled and she shares responsibility for their care. Her parents could not afford to send her to college so she is paying for school on her own. She raised money by selling candy to fund a class trip in high school. She has had fast food and credit union jobs and is a natural leader at work, having convinced coworkers to participate

in charity drive that ultimately doubled proceeds with her efforts. In her future, she sees combining professional singing, creating a music label, and discovering talent who doesn't fit a traditional mold.

### **Female, General Studies**

This Hillman Entrepreneur is an intelligent, Dean's List student who is a responsible and persistent young lady. Her father has a carpentry business but she sees herself more as a leader inside an established business than as starting a business of her own. She started college at a small rural school but left in the first semester because she prefers more urban environment. She transferred to PGCC and has had to pay for school on her own. She has a retail position and is disturbed by the theft committed by customers and coworkers. We predict that this student will blossom in the program as she interacts with other entrepreneurially minded students.

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<sup>1</sup> David F. Barbe, J. Robert Baum, Karen S. Thornton (2001). Campus Entrepreneurship Opportunities. *Proceedings of the 2001 American Society for Engineering Education Annual Conference & Exposition, American Society for Engineering Education*

<sup>2</sup> Tinto, V. and Goodsell A. (1993). Freshmen Interest Groups and the First Year Experience: Constructing Student Communities in a Large University. *National Center on Postsecondary Teaching, Learning, and Assessment*. Washington, DC: U.S. Department of Education, Office of Educational Research and Development.

<sup>3</sup> All but two students reported prior entrepreneurial experience. These experiences included selling crafts (2), hotdogs, and real estate; hair styling; photography; videography; event planning; designing costumes; fixing computers; home improvement; running an air brushing business; starting a tutoring service; advising other students on financial aid (2); advising job hunters; starting a websites for students to sell textbooks to one another; and ironing shirts to pass inspection for others in the Navy. Some students noted starting small or working for a family member and then taking their entrepreneurial interests 'to a new level.' At minimum these activities lasted for two years. Most students (68.4%) had a person close to them that they considered an example of a successful entrepreneur. Many referenced family members for this question. One student commented, "As successful and blessed as I have been launching my invention, I believe it would have gone a lot smoother if I were more business savvy."

<sup>4</sup> Gabbard, et al. (2006). The Study of Economic, Informational, and Cultural Barriers to Community College Student Transfer Access at Selective Institutions. *New England Resource Center for Higher Education*. Boston: University of Massachusetts.

<sup>5</sup> For instance, drawing upon data collected from 227 participating community colleges, one study found that while the majority of institutions (56 percent) conduct evaluations at the end of each course or program, only 12 percent use alumni surveys and less than one fifth analyze economic data to gather assessment data beyond program completion. See Carducci, et al. (September 2005). Non-Credit Entrepreneurship Education in Community Colleges: The National Perspective. UCLA Community College Studies. Retrieved September 2006 from <http://www.celcee.edu/>

<sup>6</sup> To take one example, the Hay Group, one of the world's largest consulting firms in human resource management, lists as qualities that entrepreneurs need to succeed: integrity, initiative, commitment, drive and determination, confidence, self-direction, salesmanship, and leadership. See Garrett, S. (May 2006). *The True Entrepreneur. Financial Planning*.

<sup>7</sup> Robinson, P.B., Stimpson, D.V., Huefner, J.C. & Hunt, K. (1991). An attitude approach to the prediction of entrepreneurship. *Entrepreneurship Theory and Practice*. 15(4): 13-31.

<sup>8</sup> An approach first suggested in Bain, K. (2004). *What the Best College Teachers Do*. Cambridge, MA: Harvard University Press.

<sup>9</sup> See also Creswell, J. (2003). Mixed Methods Procedures. *Research Design*. Thousand Oaks, CA: Sage Publications, 2003.



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<sup>10</sup> Consortium for Entrepreneurship Education (2004). *National Content Standards for Entrepreneurship Education*. Retrieved October 2006 from [http://www.entre-ed.org/Standards\\_Toolkit/](http://www.entre-ed.org/Standards_Toolkit/)

<sup>11</sup> A baseline survey with the second cohort will be completed in spring 2007.

<sup>12</sup> These percentages do not sum to 100 because several students previously attended multiple institutions.