

Takeoff Space
Pilot Program
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Introduction

Takeoff Space will transform the ambitions of talented young people that currently miss important life opportunities because of the disruptive environments into which they are born and grow up. It will start regionally, but become a national model for inspiring the success of those who promise to become tomorrow's leaders in high-tech and other industries and professions if only shown the way.

Takeoff Space will work with student mentors at leading universities to give participants experiences of exciting and involving academic activities, introduce them to a peer group of achievers that they can come to relate to and emulate and, most importantly, apply a systematic approach to screening for appropriate college and financial aid opportunities and encourage as well as assist participants to apply for and be successful in their applications by accompanying their efforts every inch of the way.

The program will benefit those of all ethnicities – and the ethnic mix of participants will likely vary according to location – but the stimulus to the current initiative comes from living in Lowell Massachusetts and discovering the existence of enormously talented young immigrants and children of immigrants of all ethnicities, but particularly Asian-Americans who often do not currently reach their full potential.

As Shirley Tang pointed out in an article in *Asian American Law Journal*, the belief that Asian-Americans are “model minorities... distorts the rich diversity, complex realities, and critical challenges facing many segments of the population... [C]ertain

communities, especially Southeast Asians, have some of the highest poverty rates of any group locally or nationally.”

In 2000, for example, 9.1% of Cambodian American adults, 7.4% of Hmong American adults, 7.6% Laotian American adults, and 19.5% of Vietnamese American adults had a bachelor's degree or higher, compared to 24.4% of American adults overall.³ Vietnamese Americans had an average per-person income of just over \$15,000, compared with over \$21,000 for the U.S. population overall.⁴ Cambodian and Laotian Americans had average per-person incomes below \$12,000 and Hmong Americans had the lowest average per-person income of any ethnic group described by the 2000 Census: \$6,613.⁵ In 1999, 29.3% of Cambodian Americans, 37.6% of Hmong Americans, 19.1% of Laotian Americans, and 16.0% of Vietnamese Americans lived below the poverty line, compared with 12.4% of the U.S. population overall.

Of all the Asian ethnic groups in Massachusetts, Cambodian Americans have the highest proportion of persons with low-income status: 24.6% of Cambodians live in poverty, and 53.3% are considered poor or low-income. Moreover, Cambodian Americans have lower levels of educational attainment than the overall population. The median educational attainment for low-income Cambodian Americans is tenth grade,¹² while just below 2.9% of Cambodians have a graduate or professional degree. ³ These realities challenge the stereotypical assumption that Asian Americans have succeeded educationally and economically during the past two decades.

Meanwhile, the *Washington Post* reports that “Minorities and poor college students are shouldering the most student debt.” An example is given of a student at a state university where Pell Grants available to low-income students cover only a quarter of costs, and the student needed \$50,000 in loans.

Highly talented low-income students at UMass Lowell are frequently to be seen working as baggers or packing shelves at the branch of Market Basket located in one of the poorest areas of Lowell. These are people who have worked hard at high school

despite obstacles in their way, and who might have qualified for admission at leading colleges and universities had they applied.

At many such top schools they would have received financial aid to bring costs to below those they are having to pay at UMass. Harvard advertises prominently on their admission site that, for most students, Harvard costs less than state schools. At places like Harvard and MIT, furthermore, students who need to earn some money have university-organized paid activities such as research or teaching that help enrich their education. They are very unlikely to be found bagging groceries.

The Atlantic reports on “No Point in Applying’: Why Poor Students Are Missing at Top Colleges... Those excluded come disproportionately from families on the lower rungs of the socioeconomic ladder. One recent [investigation](#) reported that students from the bottom 50 percent of the income distribution comprise just 14 percent of the undergraduate population at the United States’ most competitive universities.”

The Atlantic says that poorer top students are less likely to apply for the highest ranked universities. A key reason reported is that low-income high achievers often get insufficient guidance at school, and such guidance as is given is geared more towards informing lower achievers of local public university and college offerings. “Counselors rarely suggested that valedictorians consider out-of-state or private colleges—and hardly ever mentioned elite universities. And when valedictorians took the initiative to ask about these options themselves, they all too often faced counselors who were uninformed and who sometimes even tried to steer them away from top institutions.”

While students from professional families could count on support at home, furthermore, parents of lower-income students are less likely to be in a position to help. There is a lack of awareness that many top schools offer high levels of financial aid and a belief that they are too expensive.

A lack of peer experience acts as a further deterrent. “Those who knew someone from a prestigious institution were more comfortable with the idea of attending a college farther from home and were less likely to think that the undergraduates at these institutions were out of their league academically or lacked time for fun. All too often, however, poorer valedictorians were less likely to know someone from a top college.”

My own experience in Lowell indicates that the above observations are correct, but that the complete story is rather more complex. I first began meeting young people from low-income backgrounds in this town with the second highest Cambodian-American population in the United States, one noted for a lack of achievement compared to other ethnic groups, when I made a number of visits to a local cultural organization. I discovered that Lowell High School’s top students were very talented indeed, but rarely achieved success in college or career in line with their talent. Only a few make it to leading universities each year.

Over time, I got to know a variety of the high achievers at Lowell High School and mentored a number of them. One academically brilliant student who had made efforts to participate in engineering projects at the local UMass campus but who was born in Cambodia and had depressed SAT scores because English was his second language, did not get admitted to private schools despite otherwise having impressive qualifications.

The student’s mother, who was unaware that she had a right to discuss her child’s case with teachers and counselors as is the frequent practice of professional parents, wrote a letter to authorize me to represent her at Lowell High School. The student’s counselor declined, however, to advocate for the student by explaining to colleges the immense efforts made in getting up to speed in English as well as the fact that the student was completely fluent in oral English. By this stage the student’s applications had been submitted, furthermore, without an awareness that there were many excellent colleges

that do not require SAT scores because they recognize the scores do not always fairly represent the abilities of students who are not native English speakers.

Another student applied for a leading out-of-state public university unaware that despite high scores, that university reserved financial aid for in-state candidates only and that they would have been far better served applying for nominally “more expensive” private universities.

A further student, brilliant and accomplished like the rest, reported “botching” applications, not applying to appropriate colleges because of a lack of knowledge and guidance.

Another student’s family was not poor enough to qualify for free application fees but parents did not consider it worthwhile to pay for applications at private universities. A sibling helped pay some of the fees, but the small number of colleges applied to was insufficient to give a realistic chance of admission despite high achievements.

The student was nonetheless waitlisted at the University of Chicago, an impressive accomplishment given the competitiveness of that university. As several other Lowell High School’s top seniors were also waitlisted by Chicago, I contacted the Chicago admissions office to ask about procedures for selecting from the waitlist. I was told that the waitlist was not ranked but that students who advocated for themselves to the admissions office and made an impressive case would have the best chance.

I suggested to the waitlisted students that they phone the Chicago admissions office, but none of them did so. A study by Lowell Community Health Center’s Teenblock (part of the Lowell Community Health Center and offering support for at-risk teens) showed that many demonstrated a fear of picking up a phone and talking to someone they did not know. In contrast, students from professional families are more likely to have been taught the self-confidence to be able to represent themselves well.

The talented student from this group with the worst outcome came from a home where the father had left and was not paying child support. The student had to work to support family after school daily until 10 or 11 pm and also at weekends. As a result, school performance suffered. The student had ambitions to eventually qualify as a physician, but their talent was not recognized and there was a lack of encouragement or advice of appropriate paths to take.

The student enrolled at Middlesex Community College where they were recommended to take classes below their ability since their counselor was evidently unaware of the student's high potential. I took the student to meet a UMass premed advisor who recommended the UMass Worcester Medical School program for disadvantaged applicants who could potentially get admission with a B average. However, by that point the stress of catching up, while technically feasible, would have been too much, especially as the student needed to continue with part-time paid work.

A further student who attended Middlesex Community College, told it would save money, had intended to transfer to a private university. However, they discovered too late that they could not receive transfer credit for many Middlesex courses taken and discontinued studies to pursue paid work full-time.

Professional families tend to spend a good deal of time assisting their children with their college applications. Asking around professional friends, I discovered that they will sit with their kids going through college web sites, note test and administrative requirements and make sure they are met, take their kids on college visits, help research and complete the administrative part of applications and review, advise their children, and sometimes even help write essays.

In contrast, students from uneducated homes will typically get no help at all beyond school counseling services. Given a typical teenager attention span, it could be that school

counselors come up with good guidance even under pressure (and Lowell High School counselors with caseloads of 300 students each are overworked), but recommendations are not followed through because of a lack of supportive home environment.

In addition, many low-income high-school students have after-school paid jobs and their parents additionally expect them to continue living at home and supporting their family financially following high school completion. As a Teenblock social worker explained, the linear support traditions followed by many American families where the older generation supports the younger generation, and the younger generation supports the following one, are often not followed by immigrant families. In many such families, there is an expectation that their children have a duty to start paying in to communal expenses through earnings, even if they are studying at college. Hence, a high proportion of Lowell High School's most talented graduates attend UMass, Lowell. They generally live at home and often miss out on the range of college activities to be found at a leading private university.

To give one example, a brilliant Lowell High School graduate took on an ambitious program in multiple scientific fields at UMass Lowell. Despite his high talent, he had to work substantial number of hours each week for financial support not only of himself but of his family. UMass Lowell, furthermore, did not support his entrepreneurial interests in ways more likely to be available at private universities.

A number of community organizations offer support to at-risk students. Teenblock and the Boys & Girls Club are major examples, and they do an excellent job at reaching out to those in need of their services and offering a wide range of services. Both institutions do offer college admissions support, either directly or with volunteers from UMass Lowell or elsewhere. However, as with the high school, there are limits on the follow through that can be offered in situations where family support is lacking. Neither program is able to offer peer group support from students currently attending leading

educational institutions. Furthermore, only one of the talented Lowell High School students I identified was attending either of these programs. Despite personal and other problems, many Lowell High School students do not find their way to institutions that offer afterschool support.

The implications of the above findings are firstly that more specialist counseling and support for academically talented Lowell High School students is desirable. However well counseling services may try to do their job they are under enormous strain at a massive (over 3000 student) school with a predominantly low-income population that lacks the family support that makes running school support systems easier for more privileged populations.

Introducing Lowell's most successful teenagers to peers studying at top local universities such as Harvard, MIT and Tufts promises to build on the above by showing them academic routes and experiences of which they may be unaware and offering them the encouragement to succeed.

More importantly, however, giving good advice is not enough. A supplement is needed to approach the family support enjoyed by the children of professional parents who ensure requirements and deadlines are met and offer a high degree of parental involvement to ensure their children stay on track and succeed.

While Takeoff Space plans to depend heavily on mentoring from undergraduates at leading institutions, it will shape that mentoring to simulate the sort of follow-through typical of professional households. In addition, Takeoff Space will have local staff to liaise with participant families, explain the importance of higher education, and help create more supportive family backgrounds for program participants. Where referrals are needed to respond to deep family or other personal such as mental health problems, Takeoff

Space will work with Teenblock, Boys & Girls Club, or other local institutions, to offer appropriate specialized follow-up and support.

In short, Takeoff Space will not only deliver a far higher rate of success in leading college admissions, financial aid and attendance, but will work with student families to facilitate acceptance of the student's wishes and success in achieving them.

Pilot Program Fall 2019

Takeoff Space's pilot program is underway as of October, 2019. While we plan future programs to start in the spring with two sessions of about six to eight weeks, we are starting with a single set of meetings over eight weeks, reflecting limited initial funding and a desire to get going as the opportunity arises.

Our criteria for high school student recruitment revolve around acquiring top talent but accept the reality that it does not always reveal itself in academic scores. We do recruit on the basis of top performance in high school, looking for students in the top few percent of their class with GPA above 4.0 and evidence of taking on a challenging range of AP classes. However, we also understand that immigrant status or trauma in life often seen in disadvantaged students can depress scores in standardized testing, where income has shown to correlate with results, so we also accept students who may be just below the very top but have challenged themselves to excel beyond expectations. They may not have taken many AP classes or their SAT results may be only average, but we will consider helping them if we feel their efforts and potential are such that they can get admitted to a leading private school that offers high levels of financial aid.

Recruitment started last spring with a visit to a Lowell High School advanced placement math class by Takeoff Space CEO Jonathan Richmond and team member SimDy (a Lowell High School graduate). A challenging calculus class was a good place to

start looking for talent and many of our current intake came from that encounter. Students we met referred us to friends, and so we ended up with a good mix of both very high achievement and high potential for achievement students.

Selection of students included visits to family homes and discussions with parents or guardians who were helped to understand what we are offering. Parents or guardians have signed forms giving permission for program participation, for us to have access to discussing their children's records at Lowell High School, and giving a release of liability. All high school students accepted have agreed to a code of conduct governing behavioral and safety standards.

We have found that the majority of the students live in conditions of poverty, need to work long-hours in afterschool employment to support their families, and suffer trauma from fractured family relations. In two cases, it has been necessary to perform duties of mandated reporting of abuse. All of the students are resilient, as captured by Dan Jackson's *Portraits of Resilience*: they may have faced severe setbacks but they are determined to succeed.

Fundraising took place over the summer and is continuing with a focus on acquiring both individual donations and inviting the interest of foundations.

At the start of the fall term, we were invited to attend Harvard University's Jobs Fair and more than 100 students stopped by the Takeoff Space desk. We subsequently interviewed and either hired or took on as volunteers six Harvard College undergraduates. Training took place over a number of sessions at Harvard, and covered issues of mentoring for college admissions such as selecting appropriate colleges given high school student qualifications and interests and effective essay writing. All mentors were required to complete Mandated Reporter training and obtain certificates of completion of the online course on detecting and reporting abuse applicable to Middlesex

County, Massachusetts. We did readings and held discussions on topics of mental health and abuse. All mentors have also been required to sign codes of conduct setting behavioral and safety standards. Takeoff Space is insured with Professional and General Liability coverage.

Each high school participant was allocated to a student-mentor responsible for maintaining a one-on-one relationship throughout the program. Two Lowell High School students were initially assigned to each Harvard student. One Lowell High School student has dropped participation in Takeoff Space, so one Harvard student continues with only one mentee.

The group has been meeting weekly at weekends at Wee Thai Food in Lowell. Harvard students arrive by Uber or Lyft cars fully-paid by Takeoff Space to keep trip time to around 35-40 minutes each way. Mentoring sessions go from 10 am to 12 pm and are followed by an Asian lunch, but also ice-cream to ensure the kids are happy!

High-school students spend part of the two hours working directly with their Harvard mentor and the rest of the time working on college selection, essay writing, or form completion. We exist because the parents of our kids are generally unfamiliar with issues in college application since they are immigrants or have not been to college themselves. We therefore seek to supplement what our kids' parents can offer to bring them to the same level as kids of professional parents. Because homes are often not conducive to progress on complex writing projects, the time spent in the hour students work alone in the restaurants is valuable.

The first thing we noticed was the radical change in high-school student ambitions when the Harvard mentors introduced them to a range of colleges and universities they hadn't thought about or even hadn't heard of and explained that for those with lower SAT scores there are many SAT-optional choices where institutions recognize that SAT

results can be unreliable in predicting success in college. The process of reviewing and selecting colleges resulted in major shifts in plans. Students who would have applied only to state campuses have run the net price calculators and discovered that private colleges are often much cheaper because they offer high levels of financial aid. They have found their interests represented at a range of major universities and liberal arts colleges and have been prepared to do the considerable work of writing supplementary essays needed to apply.

As the program has developed, mentors have helped the Lowell High School students select and think about writing the principal Common Application essay and also plan for and timetable supplementary essays demanded by many colleges. Mentors have made contact with the high school students during the week to encourage progress while recognizing that some of them work until 10 pm at night to earn money to support their families and then have to come home to do homework for the high school. To ensure all supplementary essays – some really quite difficult – are completed, we have scheduled an all-day Boot Camp to be held on November 17 in the meeting room of the Cambodian Mutual Assistance Association to whom we are deeply grateful for making the space available.

In addition, for giving essential help without which the volume of essays being produced would never have been possible, the Harvard students have been assisting with logistics of form completion to ensure accuracy and eliminate the errors that are all too easily made. Where technical questions arise, our college admissions and financial aid expert Mark Kantrowitz has been consulted and given valuable advice. Mark has also helped advise on complex financial aid situations.

Jonathan Richmond has taken responsibility for reporting issues of abuse and completed two mandatory abuse reports as well as notified Lowell High School of the situations. In one case, Jonathan advised by Mark has taken steps to initiate an

application for independent status by one student who is currently homeless, a status that distressingly affects 5 percent of Lowell High School students. Jonathan has also made referrals to Teenblock, a teen support service of Lowell Community Health Center and equipped to mentor in cases of teenage trauma.

The fall program will be completed with checking and submission of college applications and writing of recommendations by the Harvard mentors for each of their mentees. These letters are important for informing colleges of the special circumstances as well as efforts of a group of hard-working but disadvantaged kids who deserve a better future. The letters will be transmitted with some extra comments by Jonathan Richmond.

We plan to give one-on-one support for interview preparation as we are advised that students have been invited to attend interviews and we will attempt to facilitate visits to colleges in the events interviews are required at college locations. Where students are accepted at out-of-state colleges we will attempt to facilitate visits to help them make decisions, assisted by a generous donation of air travel by Southwest Airlines.

Future Program Plans

Takeoff Space plans to convert from the pressured if successful format of a one-term program to a two-term sequence starting Spring 2020, designed to reduce pressure and incorporate college visits as well as enrichment activities. We also plan to engage more with parents, and encourage them to learn more about their children's education and attend meetings with counselors at Lowell High School, something less educated parents rarely do. Doing so will help parents feel more involved and responsible for designing the best outcomes for their children and will also foster a sense of community belonging.

We feel we can serve many more students at Lowell High School as well as expand to other high schools with high disadvantaged populations, however our growth will be

determined by our ability to attract donations. We are currently in the process of fundraising, which can be difficult before a year of results are produced and which may constrain our activities during the remainder of our first year of operations. We have approached banks and other institutions operating in Lowell as well as regional foundations and await outcomes. Southwest Airlines has very kindly accepted our request for support and offered a number of free air tickets for our kids to conduct out-of-state college visits.

We have a need for increased staffing, particularly for a social worker to liaise with families and students. However, we remain very limited by finding constraints at the same time as we are observing the huge shifts in aspirations our program is already producing along with the successful completion of a range of complex college applications that would never have otherwise taken place, and look forward to hearing of the success of our first intake of Lowell High School students.

We are deeply appreciative of the work of our Harvard undergraduate mentors. They have made a huge difference by bonding closely, giving confidence, and changing the expectations of our high-school participants for their educational and life outcomes. That change in expectations, we believe, has motivated the great effort the high schoolers are currently making and will lead to highly improved outcomes compared to expectations without the participation of our extraordinary mentors.