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Income Effects on Concurrent Enrollment Participation

The Case Study of UConn Early College Experience

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Introduction

The effects of household income on educational opportunities are not only a well-researched area in scholarly literature, but also a popular topic in the mass media. Scholarship indicates that high schools in less affluent areas may struggle to provide the educational opportunities that schools in more affluent areas are able to provide. Conversely, areas of higher affluence offer greater academic programming. Many scholars claim that the more affluent the area, the stronger the culture for academic competition and achievement (Blossfeld and Timm 2003; Breen and Goldthorpe 1997; Breen and Jonsson 2005; Kerckhoff 1995). Given the access, students will choose the academic opportunity that offers them the greatest reward at the smallest cost. While there have been few academic studies on concurrent enrollment programs, a normative assumption would be that, given the access to college classes at the high school, students would enroll in these classes because it provides them with more opportunities and greater benefits as they apply to and attend college. However, when one investigates the University of Connecticut's concurrent enrollment program, UConn Early College Experience (ECE), the scholarship is not supported by the data; rather it shows the opposite tendency. That is, in the upper quartile of median household income, as household income increases in a linear fashion, student participation decreases

exponentially. Contradicting scholarship even further, in the middle and lower income quartiles, there appears to be no relationship between the median household income and participation. What does this mean and what would cause this to occur?

While the relationship between income and participation in the upper quartile is clear to see (although the reasons may not be clear), the absence of a correlation in the middle and lower quartiles is equally interesting. That is, if income and participation have no relationship, this indicates that economic factors do not bear relevance when students enroll in the program. More to the point, there do not seem to be economic barriers for students to participate in UConn ECE.

To better understand this relationship, a survey was administered to the UConn ECE site representatives (designated high school liaisons who administer the program, register the students for the UConn courses, and disseminate program information to faculty, administration, students, and parents at the high school; usually in the guidance department). Based on the survey data, primarily two things affect program growth (positively or negatively) across all three quartiles: (1) students' ability to earn UConn credits that are accepted not only at UConn but also transfer to other universities and colleges, and (2) instructor interest. If the instructors see value in the program, the participation at the high school grows, and likewise, if enrollment at the high school is declining, the faculty is generally not in favor of the program.

UConn Early College Experience

Concurrent enrollment is an educational opportunity that allows high school students to take university courses at their high school for college credit. High schools that participate in such programs are not only offering their students access to college credits, but also allowing them the benefit of applying to college with a university transcript, thereby making them more competitive during the admissions process. Moreover, once students matriculate to a university or college, they have an academic advantage compared to their peers because they have an established transcript. These credits offer students greater flexibility in scheduling their semesters and may allow them to take more advanced

courses earlier in their academic career, thus increasing the opportunity for students to double or dual major, as well as increasing early or on-time graduation rates.

Established in 1955, UConn ECE is the oldest continually active concurrent enrollment program in the Unites States, as well as one of the largest in the nation by student enrollment and numbers of classes offered per year. While some of the community colleges offer concurrent enrollment in Connecticut, UConn ECE is by far the most expansive (in terms of programming and student enrollment) and the only accredited member of the National Alliance of Concurrent Enrollment Partnerships (NACEP). At its inception, the program had seven partner high schools and just over two-dozen students. During the 2009–10 academic year, UConn ECE had 139 active partner high schools and more than 7,500 students enrolled in one or more UConn courses. UConn ECE is a robust program that seeks to work with highly motivated high school students. In the program's recent history, there has been an effort to offer a broader array of courses so that it is not an exclusionary program that caters to the top 15% of students. Rather, as is central to the mission of the program, UConn ECE seeks to help develop students who excel in specific academic areas and/or who have diverse academic backgrounds and motivations. Students in the top rankings also enjoy this diversity, along with the traditional core courses of a rigorous academic program (e.g., calculus, chemistry, and freshman English). The broadening of course options allows students to follow their academic interests, thereby allowing students who may be hesitant about going to college to realize their potential in higher education.

Student Access to the Program

The first step in establishing a concurrent enrollment program is certifying high school instructors. Certified high school instructors are the bedrock of the program and the certification process is quite extensive. Indeed, UConn ECE instructors are certified by the university's departments as adjunct UConn faculty. This means that the standards used to hire an adjunct to teach a specific course on campus is the same standard applied to certify UConn ECE faculty. Using this as a panoramic of the program, such a system creates great specificity when one looks at how

each department conducts certification, because certification is centralized at each department.

Because certification is conducted at the department level, the system as a whole offers a panoramic of approaches that can be used to carry out the certification process. It is not a traditional "access" program that works exclusively with underserved populations; rather it is an open access program for students who are academically motivated. During the first four decades of the program, UConn ECE catered to "academically superior" students. High school students who applied to the program had to have a combined SAT of 1200 or be ranked in the top 15% of the high school class by grade point average. As of fall 2000, the program disposed of such regulations and gave the course gatekeeping responsibilities to the UConn ECE faculty and site representatives, with the instructions that the UConn courses should be for students who not only have an interest in the course but also can keep pace with the rigor of a university course. In fall 2005, UConn ECE started its efforts to broaden course offerings in an effort to provide greater access to a greater number of students. While courses such as calculus and freshman English would always remain for the honors students who fit the former acceptance standards, there was a new effort to offer courses to all motivated high school students. Environmental science, political science, and human development and family studies are just some of the disciplines that appeal to the interests of students, and these courses may not require prerequisite coursework.

Financial Restrictions

Broadening the course offerings was one method of increasing student access to university coursework. The other primary means for keeping UConn ECE an access program was keeping the cost structure manageable for all students. Prior to the academic year 2000–2001, students who took UConn courses through UConn ECE did not have to pay for the opportunity. All courses were free. The following year, the university decided that in order to increase administrative oversight, a nominal cost of $5 per course would be applied to the program. Over the years, as the program's costs increased and its vision was to increase benefits and opportunities for students, the student fees were raised incrementally to $25 per credit.

Compared to taking a course at the university through Continuing Education, the student fees are still quite low. Nevertheless, the central office has been sensitive to the needs across the state, and those students who are part of the federally subsidized Free and Reduced Lunch Program are given a full fee waiver. Moreover, in high schools that have a student population where 85% or more are part of the Free and Reduced Lunch Program, the entire student body receives a fee waiver from UConn ECE. This ensures that all students who are motivated to take college courses can do so. There are no economic barriers to the students, but there are limited financial costs that are incurred by the district: high schools do not pay for participating in the program, but they do have to allow their UConn ECE faculty to come to the university for scheduled professional development once every other year. Thus, the cost to the district is a substitute teacher for a day, while the UConn ECE faculty person completes his or her professional development.

Literature Review: Educational Decision Making

The idea of educational decision making will serve as the theoretical framework for understanding student participation in concurrent enrollment programs. In the social sciences, scholars have spent years studying elite decision making, voting behavior, and civil participation. In some ways all three categories address the idea of educational decision making, and at the same time none of them truly focuses on or explains the rationale. That is, elites are making decisions for their nation usually in reaction to some event; voters are making decisions for themselves as individuals and for the country as a collective; and civil participation (political protest, volunteering, etc.) is generally cause-based. Educational decision making is individualized, the results are not delayed, and the effort invested in one's education is converted to personal gain. Thus, educational decision making is truly a separate category from the collective decision making studied by social scientists.

Currently there is a deficit of literature on educational decision making; rather, the emphasis is placed on educational access. Educational access is different from educational decision making because "access" implies restrictions from, or allowances to, education. Thus, the term is

most often connected to ideas of poverty. Most scholars are concentrated on minority access to educational opportunities and/or educational access in economically challenged areas. However, very few scholars are focused on educational decision making. This is the next step in the process once opportunities are available. This is truly the focus of our study as we are trying to understand why participation in UConn ECE decreases as household income increases. While there are but a few scholars who focus on educational decision making, this study benefits greatly from their approaches.

Breen and Goldthorpe (1997) examine "educational differentials" and construct a model of decision making that mirrors political game theory. For example, making the decision to stay in high school opens up a number of other decisions, perhaps to take advanced coursework, focus on the arts, or choose from a series of other options. This model differs from traditional game theory in that, under these circumstances, microdecisions affect only one person or at most the family unit. They focus on educational opportunities, aspects of gender, and differences in resources. Before testing their proposed model, Breen and Goldthorpe establish a few important benchmarks. Their model begins with the assumption that educational differentials, the differences in educational attainment, can be divided into two categories—primary and secondary. Primary effects are those that stem from class origins and academic ability. Breen and Goldthorpe support the notion that children from more advantaged backgrounds generally have higher educational performance on tests (both standardized and other forms of examination) than children with less privileged backgrounds. Secondary effects, however, are those that come from actual choice—what the student (and perhaps the parent) chooses to do for their educational future. Breen and Goldthorpe state that children and their parents make rational decisions about their educational opportunities, a formula that considers costs, benefits, values, and norms. Breen and Goldthorpe's general approach is supported by scores of everyday examples where individuals make decisions that determine personal gain, while not adversely affecting others. Duncan and Brooks-Gunn (1997) and Breen and Jonsson (2005) approach educational inequality from the same perspective. While taking less theoretical approaches, they add to Breen and Goldthorpe by emphasizing that parent socioeconomic

status, cultural assets, and other networks impact the educational decisions of their children. Thus, the wealthier the family, the more actively involved parents and students are in the student's own education; conversely, the less affluent the family, the weaker the culture for academic involvement. This model reflects the understanding that income and educational attainment are related.

Absent from the literature discussed above is that students may not make decisions with a clear understanding of the facts or full information. That is, when students and their parents make decisions based on cost and benefits, they may be well informed, poorly informed, or working under a set of mixed assumptions. Further, it is worth noting that students may not even know the full list of options at their disposal. This is important as we try to understand why students, with or without parental guidance, make their decisions.

Taking a different perspective on the issue of affluence and educational access and decision making, Karabel and Astin (1975) determine that social class and where students attend college are linked together. Moreover, their research indicates that at levels of high affluence (social rank), academic ability is only a factor if the student is exceptionally talented or an exceptionally poor performer. If academic ability is held constant, the scholars found that even in terms of financial support (scholarships and endowments), funds are more often and more generously offered to students who have more affluent backgrounds, compared to students with less affluent backgrounds. Using many layers of regression analysis, they finally conclude that social rank does not necessarily determine where a student will attend college; however, high-ranked colleges will select students of higher affluence and social background. Moreover, the authors support the notion that patterns of elite access perpetuate themselves in the culture.

Methods and Data

Participation/Income Data

This study employs both quantitative and qualitative methods of inquiry. It not only establishes a relationship between household income and

student participation, but also seeks to understand why this relationship could possibly exist. The investigation will examine the issue on a macro level for one key reason: UConn ECE does not collect income data on the student household. However, income is not what the study is trying to understand; rather it is student participation. Student participation has many more aspects than one may originally estimate.

A major component of student participation is student enrollment (se), which is our dependent variable. Student enrollment is defined as the nonduplicated tally of students enrolled in a UConn course at the high school. If the student registers for one course or five courses, the student is counted only once. If we were to count the number of courses per student, that would potentially show the diversity of student interests or the academic background of enrolled students. That variable, however, would be used for a different study.

While student enrollment is a crucial indicator of participation, there are two interaction variables that help explain student participation and are two of the study's three independent variables. First, in order for students to participate in a concurrent enrollment program there must be a certified instructor; that is, there must be an actual course offered. The number of courses offered per high school (cph) is defined by how many certified instructors were actually offering courses. The tally does not include duplicate sections. In other words, if there were three sections of freshman English, the course was counted once regardless of whether there were one or three UConn ECE instructors. Second, upon reviewing the data on student enrollment in the program in relation to courses offered, there were glaring disparities between the two. For example, some high schools have as many as fifteen courses offered, but no more than forty students enrolled. This is a critically important variable because it shows a tendency toward participation. The ratio in the example above would indicate low participation, whereas if the reverse occurred it would show high participation. Thus, the variable students per course (spc) is derived by taking the total nonduplicated student enrollment at the high school and dividing it by the total nonduplicated courses offered at the high school. All student and course offering data is pulled from the 2008–9 academic year.

The final independent variable used in this study is median household income (mhi). Since UConn ECE does not collect data on student household income, the data on household income that will be used is town median household income. While it would also be ideal for this study to include a time series analysis tracing the changes in median household income over ten years in relationship to student participation, household income data are not collected on a regular basis. Rather, town data is collected depending on the size of the town. The American Community Survey from the United States Census Bureau collects socioeconomic data on all towns with a population of 65,000 or greater on an annual basis. Towns with a population that ranges between 20,000 and 65,000 are surveyed every three years. Towns with a population less than 20,000 are surveyed every five years.[1] Thus, annual household income data would consider only fifty-three towns in Connecticut, which would misrepresent the study. Therefore, this study uses 2008 median household income data (the only data available) provided by the Connecticut Economic Resource Center, Inc. The 2008 median household income data corresponds with the student enrollment data for the 2008–9 academic year.

This study, however, is not looking at the town median household income; it is using town median household income as a proxy for the high school. In most cases one high school serves the community of one town. In Connecticut there are a number of very rural towns that do not have their own high school and thus send their students to a regional high school. In order to stay consistent with the proxy described above, regional high school median household income is the average of the sending-town's median household incomes. For example, High School X is a regional high school that receives students from seven area towns. The median household incomes of the seven towns are tallied and divided by seven. This average of medians is designated as the median household income for the high school. In none of the cases does a regional high school have a town where the median household income is an outlier. In only two regional high schools are the individual towns in two different

1. Connecticut State Data Center (http://ctsdc.uconn.edu).

income quartiles. Each of these high schools has only two towns that compose the district.

As median household income is ascribed to high schools in this way, it forces the study to remove the private and parochial high schools that charge tuition. Students who attend private schools come from a variety of towns with different backgrounds; some students receive tuition waivers, while other families pay the full rates. These nuances and the selection requirements established by the high school make the issue of student participation much different in these schools, and thus these high schools are arguably outliers to this study.

Finally, the high schools are segmented into three quartiles by the median household income. The UConn ECE program median is $76,390. The upper income quartile range includes high schools with a median household income between $87,066 and $190,636; the middle quartile includes high schools between $65,056 and $87,007; the lower quartile includes high schools between $30,379 and $64,405. When all the high schools are presented on a scatter plot, there is a slight skew to the left (see

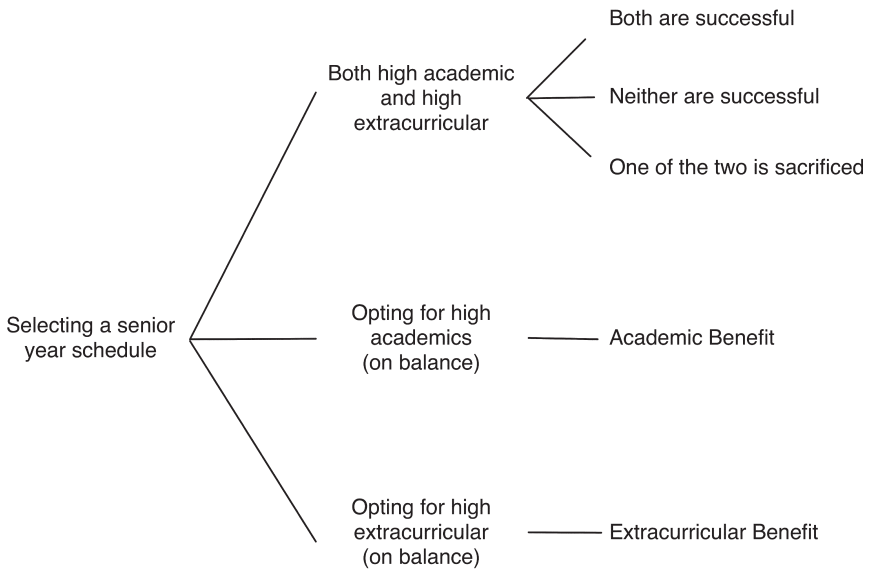

Figure 16.1. UConn Early College Experience (ECE) Income and Student Enrollment

Figure 16.1). This indicates that the distribution of schools with the highest enrollment is "middle America." Not only does the graph show the area of highest enrollment, but also it shows the density of participating schools. Additionally, the graph shows the utility in segmenting the data into quartiles in order to determine a relationship between participation and income.

Upper Quartile

Using the segmented data the study uses STATA 10 to run regressions on the data to determine the strength of the relationship between student participation and income. Upon looking at the graph of the upper quartile of median household income (see Figure 16.2) it is apparent that the relationship is not linear. As income increases in a linear fashion, participation decreases exponentially. Indeed, when a basic OLS-regression is used to test the hypothesis, there is no relationship between the variables.

A better estimate occurs when we adapt the equation to a more functional form, using a log-log model. Log-log regressions are very typical for demand models when all the values are known and no value drops

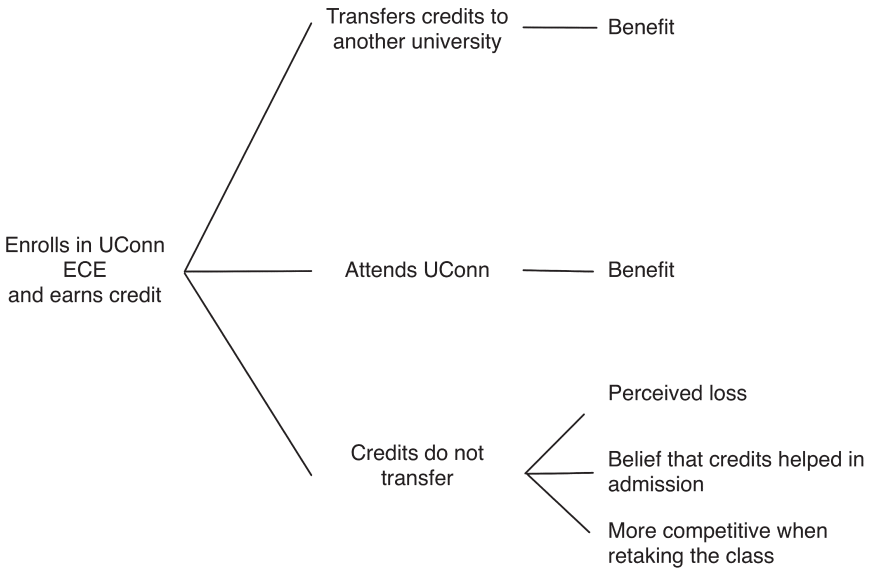

Figure 16.2. UConn ECE Upper Quartile

TABLE 16.1

Variables and Log Student Enrollment

Variables	*Log Student Enrollment (se)*
Avg. Students per Course (spc)	.0695783 *
	(.0128906)
Number of Courses per HS (cph)	.1408301 *
	(.0342958)
Log Median Household Income (mhi)	–1.238437 ***
	(.6663778)
Constant	16.38114 **
	(7.870349)

N = 23
$R^2 = 0.7160$
* $p < .01$
** $p < .05$
*** $p < .10$

below zero. When the model is run, the results show a relatively strong relationship between the variables. $R^2 = 0.7160$, which means that there is a relatively high accuracy to the regression (see Table 16.1). Further, all of the variables are statistically significant between .10 and .01.

$$\ln(se) = 16.38114 + -1.238437 \ln(mhi) + .0695783spc + .1408301cph$$
$$(7.870349) \quad (.6663778) \quad (.0128906) \quad (.0342958)$$

Middle and Lower Quartiles

When linear and nonlinear regressions are run for the middle and lower quartiles, a relationship cannot be established between student enrollment (se) and median household income (mhi) (Figure 16.3 and Figure 16.4). For the middle quartile, neither a log-log model regression (the expected model) nor a linear regression produces a relationship that supports a correlation between student enrollment and median household income. In both cases the regression lines fit well; $R^2 = 0.8375$ and $R^2 = 0.9243$, respectively, but the only significant variables are students per course (spc) and courses per high school (cph). Similarly, when a log-linear model (the

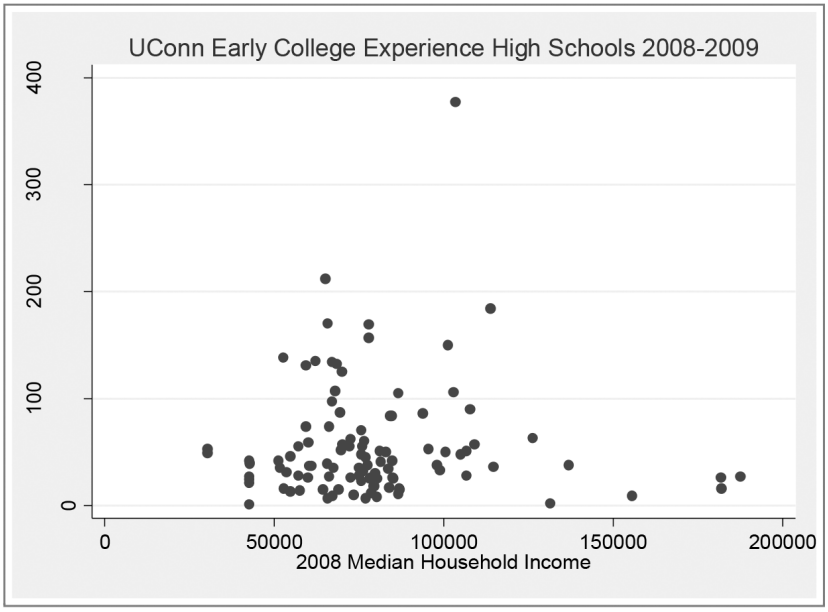

Figure 16.3. UConn ECE Middle Quartile

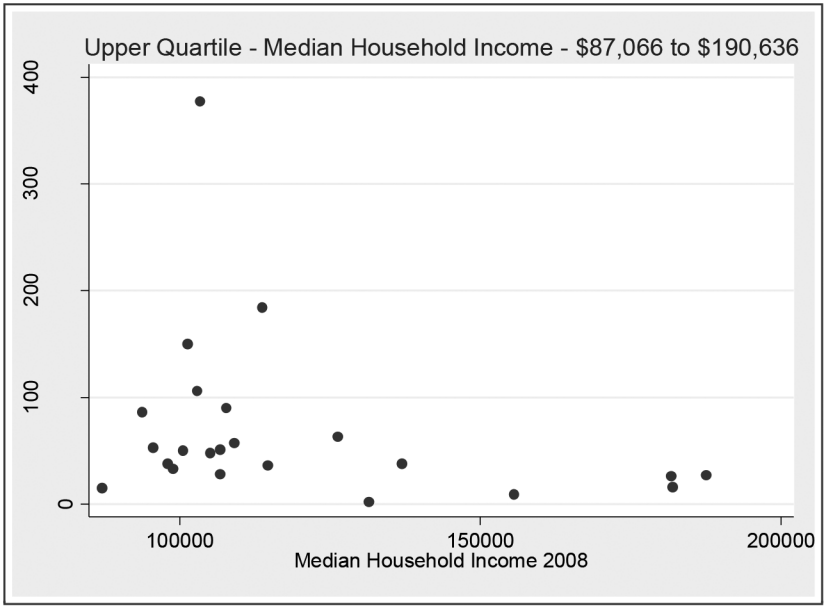

Figure 16.4. UConn ECE Lower Quartile

expected model) and a linear regression are run for the lower quartile, the regression lines are strong; $R^2 = 0.9256$ and $R^2 = 0.8259$, respectively. The only variables with statistical significance, however, were students per course (spc) and courses per high school (cph). Median household income (mhi) and student enrollment (se) were not statistically significant in either case. Therefore, this indicates that there is no relationship between median household income (mhi) and student enrollment (se) in these quartiles.

Analysis and Results

Upper Quartile

The regression for the upper quartile not only shows a relatively high correlation, but also all of the variables of the upper quartile are significant or highly significant. What this shows is that as median household income increases, student enrollment decreases. While this is the general trend, the explanation requires a bit more discussion. First, as the median household income increases by 1,000 units (i.e., $1,000 increase in household income) and all other units are held constant, student participation will decrease by 8.344, approximately 8 to 9 students. As this is a log-log model, however, this rate is not a constant rate; it is elastic. Thus, at a 10,000-unit increase, the rate of decrease is 11.20, or approximately 11 to 12 students. Clearly, due to the nature of the independent variables, student enrollment (se) will never slump below 1 student. Students per class (spc) and the average courses per high school (cph) are both highly statistically significant. This makes sense, as without a course being offered, there can be no student enrollment. Likewise, if there are no students per class, then student enrollment will be zero. This is something that does not stand out in the regression equation, but it is a matter of logic and an important distinction in this discussion.

Middle and Lower Quartiles

The middle and lower quartiles indicate that there is no relationship between household income and student participation. It is not surprising that both students per class (spc) and the average courses per high school

(cph) are highly statistically significant. The reason for their significance is that, as previously explained, if there is a class being offered, then there must be a student in the class; if there are no students in the class, then the course is removed from the list of active courses offered. While the regression line is strong, our dependent variable is not significant. This is not to say that we cannot learn from the regression. Having no correlation between median household income (mhi) and student enrollment (se) indicates that economic barriers do not restrain students from enrolling in UConn ECE in the middle and lower quartiles. While it does not indicate why students enroll in UConn ECE, it contradicts many scholars who make a connection between educational access and income. This is not only true in the middle quartile, but also it is true in the lower quartile. One potential factor that impacts household income and participation is UConn ECE's fee waiver program, which exempts students on Free and Reduced Lunch from paying student fees. In the lower quartile, five of the twenty-seven high schools receive a fee waiver for all the students, due to the 85% Free and Reduced Lunch rule. Thus, the lack of relationship between income and participation is a welcome indicator for UConn ECE.

Educational Decision Making

Returning to the logic of educational decision making, after a student has access to make choices for his/her education, the student then weighs the costs and the benefits of the educational opportunity. Let us apply this logic to students in the upper quartile faced with the decision to enroll in a UConn course at high school. Students in the upper quartile are perceived to be highly competitive candidates when applying to college. The rank and reputation of their high school, the student's personal class rank, and extracurricular activities all account for college admissions decisions. On a high school transcript, generally all honors courses are ranked the same. The benefit of taking an honors course, a UConn course, or an Advanced Placement (AP) course is usually the same on a high school transcript. It is understood that college admission opportunities increase with a greater amount of student activities (sports, after school jobs, and volunteering). When making a decision about where to invest the most time, a student may consider the balance of time spent on extra coursework

versus extracurricular activities. In affluent high schools with a good reputation, a student's knowledge of that reputation enters into the cost/benefit trade-off. That is, if the student thinks that his/her high school has a good reputation, s/he may opt to devote more time to extracurricular activities. Depending on a student's class rank, there may be a dramatic difference in decisions if the student is in good academic standing or if s/he is in poor academic standing. (See Figure 16.5.) Finally, if we are to follow Karabel and Astin's conclusions, social class/affluence also has a bearing on the decision, but students would not know this. What they would know is that there is a culture in their town and high school that students go to high ranked colleges.

In the upper income quartile, cost of education is less of an issue than in the middle and lower quartiles. Depending on one's perspective, a student in the upper quartile might sign up for as many UConn courses as possible because cost is no object. Conversely, one could also assume that students would not register for the UConn courses because they can afford college next year and do not need the advancement. Further, college

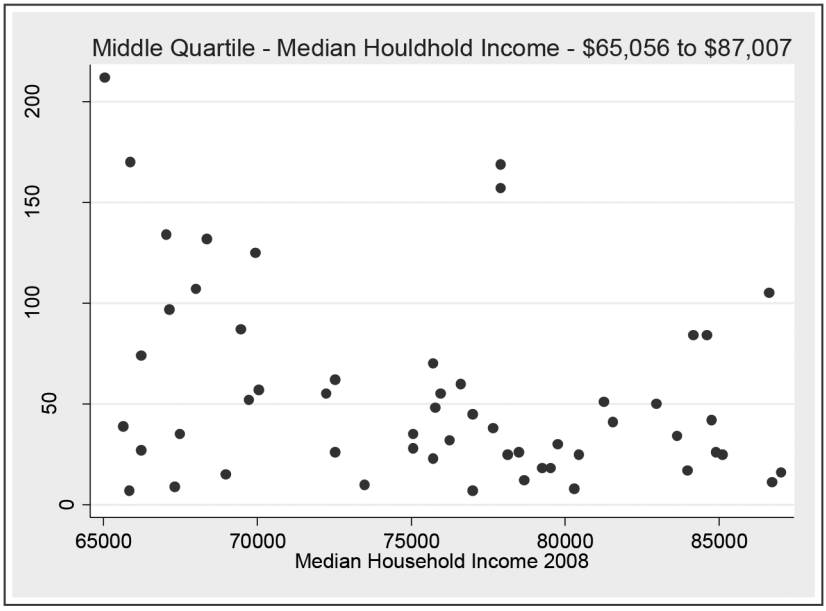

Figure 16.5. Decision Making and Outcomes Based on Student Priorities

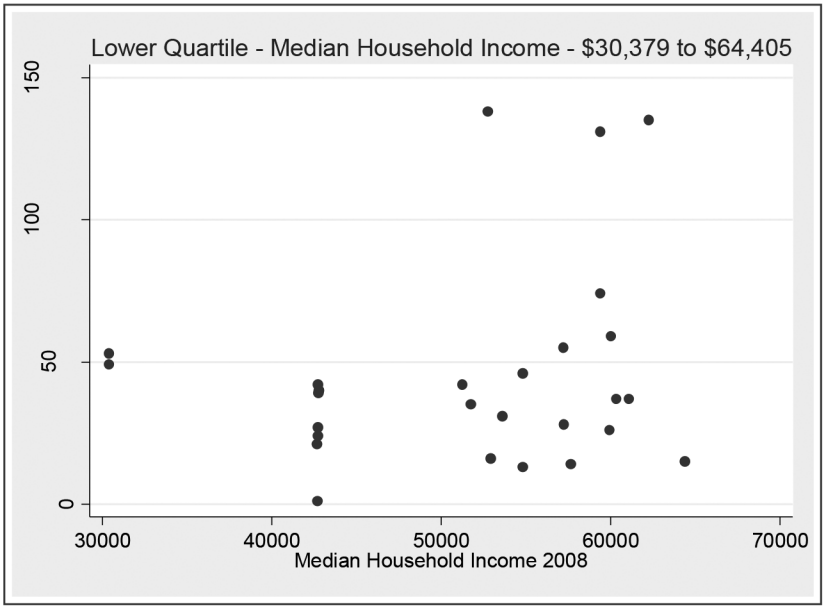

Figure 16.6. Decision Making Based on Benefits of UConn Credit

selection might be focused on the private liberal arts colleges. While many private liberal arts colleges accept UConn credit earned through UConn ECE, the student might not believe the credits transfer or might not want to sacrifice extracurricular activities to other time investments.

Students and parents in the middle and lower quartiles, however, are worried about college costs next year. If a student can graduate from college in three years versus four, then they are likely to take advantage of the opportunity to do so. Moreover, students want to maximize their opportunities when applying to college, and applying with a university transcript may prove to be an advantage. While students do not know exactly how universities and colleges admit students, they know that having a college transcript does not diminish their chance of admission. (See Figure 16.6.)

Site Representative Survey: Method and Results

The decision-making (game theory) diagramming is useful in mapping a student's choices. Given the theoretical background, in conjunction with

the regression results, it is a convincing argument. In addition to this approach, a survey also was distributed to the site representatives to see if they could offer greater insights on the program. The survey asked the site representatives to identify the benefits of UConn ECE at their high schools, whether UConn ECE conflicted with other educational opportunities like Advanced Placement, as well as what motivated the high school's partnership with UConn ECE. The survey was used in an attempt to understand the culture that existed at the high schools and whether the culture supported the partnership with UConn ECE.

In addition to the survey, each high school site representative received a program growth chart that showed the UConn ECE student enrollment at his or her high school over the past eleven years in relationship to the county average and the program average. The site representative also received a growth chart illustrating the number of nonduplicated courses offered at their high school over the past five years, again in comparison to the county average and the program average. The data sheets offered the site representatives a long-range view of their participation in UConn ECE and allowed them to answer such questions as "Has your student enrollment in UConn ECE grown over the last eleven years (or since you have been a partner high school)?" Ninety-eight site representatives responded. While surveys were anonymous, one of the questions asked the respondent to identify the county where the high school is located. All eight Connecticut counties fit on a spectrum of median household income; the two polar ends have a variance of more than $30,000. Thus, knowing the county of the respondent may indicate preferences by affluence.

Of the site representatives who responded, 79% have a growing UConn ECE program, 18% have a declining UConn ECE program, and 3% of respondents are in their first year of the program. From the total pool of respondents, 65% of site representatives indicated that their program has grown because students earn a UConn transcript; 86% of all respondents reported that the credits transfer well to other universities and colleges. This seems to indicate that while having a UConn transcript is important, the convertibility of credits as college currency is very important. It is interesting to note that there are more schools that enjoy the fact that the credits transfer well than there are schools with a growing UConn

ECE program. Naturally, one of the reasons for this is that site representatives are usually guidance staff and do not teach the courses; rather, they organize the program.

After the singular importance of the earning and transferability of credit, the most important factor that determines student participation is instructor interest in UConn ECE. With regard to program growth, 50% of site representatives report instructor interest as an impacting cause, the second most important factor after transcripts and transferability. Likewise, in the 18% of schools with declining UConn ECE student enrollment, the most cited cause for the decline in the program is instructor interest (38% of respondents) and difficulty in getting instructors certified (19%). Combining the aforementioned percentages that relate to instructor interest, 64% of respondents link instructor interest, lack of interest, or certification standards preventing certification as impacting program growth. Thus, instructors have as much to do with student participation as does the value of earning a UConn transcript.

When asked whether instructors prefer UConn ECE over other advanced programs such as AP or International Baccalaureate (IB), only 26% responded positively. Furthermore, while the majority of instructors do not prefer UConn ECE over other programs, students prefer it to AP or IB by 39%, or 13 points more. Interestingly, in schools with declining UConn ECE programs, respondents say that 10% of parents prefer AP to UConn ECE, and another 24% say that the student interest is declining or the academic level of students is declining.[2] In all cases, the responses to the survey are nearly identical on the program level as they are on a county level; thus, no inferences can be made based on affluence. What can be gleaned from this survey, however, is that transcripts and instructor interest are the two most impactful reasons for program growth. Although the opinions of the site representative are not necessarily the opinions of the students and parents (who are ultimately making the decisions), it is arguable that the views of faculty and staff at the high school do affect the

2. In the free response section of the survey, 14% said that the academic ability of students has decreased and therefore the school cannot offer the course.

decisions of the students. As the site representatives (and presumably the UConn ECE faculty) put a high value on the transferability of the credits and are the ones advising the students, it is even more curious to see low student participation in the upper quartile of the program.

Conclusion

Taking the results of the regressions from all three income quartiles and the information gathered from the site representative survey, it is valuable to revisit the theoretical framework of this chapter as a road map for understanding the data at hand. Educational decision making is difficult to understand when there is a relationship between decision making and affluence. Scholarship often focuses on the lack of access to education among the economically disadvantaged. It is not often the case that affluence is the focus of a study. It is a positive indication that there is no relationship between affluence and participation in the middle and lower quartiles. Indeed, Figure 16.1 shows a left skew to the graph, which indicates that the bulk of the students in the program are from the middle and lower quartiles. Given a game theory approach, students in these two quartiles are participating because they want to get a head start on their college work, presumably to reduce the time and tuition costs once they are enrolled in a degree program at a college where the cost of education will be higher. In the upper quartile, given the decline in participation as income increases, it indicates that students are focused on something else. There are two issues that may explain this: (1) conflicting opportunities for these students, and/or (2) a confidence in the culture of college participation that is grounded on a casual disregard for costs. The first issue refers specifically to a conflict between UConn ECE and other advanced credit programs like AP, IB, and online programs. Given the responses of the site representatives, there is a high understanding that UConn credits earned through UConn ECE transfer to other institutions. There does not seem to be such a conflict in the middle and lower quartiles; it would seem improbable that such a conflict could not be overcome in the upper quartile. Given the survey data, high schools in all areas of Connecticut seem clear on the benefits of the program, which would seemingly reduce such conflicts between programs.

What remains to be argued is that in the upper quartile there is a culture of college participation that is not impacted by cost. This cannot be judged by the regression data, nor can the survey data offer deeper explanation. However, the theoretical framework allows for the comparison of resources to register in decision making. Karabel and Astin, Breen and Goldthorpe, and Breen and Jonsson all discuss the culture of access to education and that affluence allows access and opportunity to education. These authors were not referring to concurrent enrollment; they were referring to the culture of access and opportunity to college. Concurrent enrollment is a partnership that increases student access to higher education. But if the access is already there, why is there a need to increase it? In the middle and lower quartiles, where attending college is only now starting to institutionalize in the culture, students are encouraged to use available opportunities because the competition for college admission and scholarships is difficult. In these areas, concurrent enrollment performs much better than in the upper quartile. Indeed, the first eight high schools in the poorest areas have a larger student enrollment than the first eight high schools in the wealthiest areas.

In terms of concurrent enrollment programs throughout North America, the findings of this study are more than just interesting. In the middle and lower quartiles, access to concurrent enrollment partnerships should be opened with as few economic restrictions as the program can manage. Students who earn college credits while in high school can realize their potential for college and the experience will allow them greater opportunities once in college. In the upper quartile, the immediate need for concurrent enrollment may not yet be realized because access to higher education is more easily attainable and with fewer restrictions. However, the trends revealed in this study are not all one way. There are already a few high schools in affluent areas with robust partnerships and high student participation. As college applications increase and access starts to tighten, this trend may shift. It is the responsibility of the concurrent enrollment program and NACEP to increase awareness of these rich opportunities through research and advocacy. Concurrent enrollment is a program where all students can benefit and student success is determined by effort, not affluence.

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