

**Barriers and Opportunities Faced By
First-generation College Students**

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Problem Statement

In our work with high school students, we have found that each student carries a different self-expectation for his or her eventual matriculation into post-secondary education. Some feel that college is their absolute goal. Some feel that they have been encouraged to continue their education beyond high school while others feel discouraged. How do students arrive at these varying expectations? For those who have a positive expectation, how reasonable is it that the expectation will be realized? Our goal in this study was to work with first-generation college bound students from our various settings and gain a measure of insight into the factors that make college a reasonable expectation for some students but not for others.

Some definitions are in order. As we discuss how these students developed their expectations of college attendance, we define college and postsecondary education as any two- or four-year academic degree program. We accept Hertel's definition of first generation as students neither of whose parents has experienced at least one full year of college (2002).

The support that students in general receive from their families, in terms of college attendance, takes many forms. This support is not always a matter of money. Those whose parents did not attend will naturally lack in the skills to help their children with

such factors as knowledge of college life and culture (Hertel, 2002). Students with college-educated parents will have this knowledge to share, and their children will thus benefit.

The expectation of parents that their children will attend college is also affected by the parents' history of college attendance. Not only are non-college-educated parents more likely to expect their children to eschew the college experience, they are less likely to be able to afford to help their children financially (Hertel, 2002).

First-generation students differ from their peers in other ways, including demographic characteristics, the importance they place upon college, their aspirations, their perceived level of family support for attending college, their institutional choice and commitment, their pre-college knowledge and behaviors, and their entering academic skills and confidence levels. They also carry a perception of their own parents as being less supportive than their peers perceive their parents to be (McConnell, 2002).

Finally, the perception of insurmountable barriers will inhibit many students from choosing college, or from seeking a career that requires a college education. Even given that they may make these choices anyway, the circumstances of their lives may preclude them from following through with these choices (Albert & Luzzo, 1999).

The students with whom we work come from varying life experiences and socioeconomic backgrounds. Ms. Qualey works with students in a rural vocational-technical (vo-tech) school in southwestern Pennsylvania. This is a depressed area with a median income that is 27% below that of the state of Pennsylvania. She reports some illustrative statistics about the population of the Vo-Tech: 99% are white; 40% have an Individualized Educational Plan (IEP), as opposed to 20% in the regular school population; 10% go on to college.

Mr. Pace works with African-American students from inner-city schools. He takes them on an educational trip around the United States to tour prominent, historically black

colleges. One statistic, gleaned through his work with the Negro Educational Emergency Drive (NEED), is that money is such a limiting factor for these students that fully 42% of those who apply for, but do not receive, financial assistance, either do not attend college or attend only part time. Additionally, he reports that 85% of the students who complete his college tour successfully matriculate at a post-secondary institution.

Mr. Killmeyer works with a group of mostly middle class, comparatively high-achieving students in a Catholic, college-preparatory, high school. He reports that 99% of these students are white, and that 98% go on to college. No students at this school follow an IEP.

Purpose

This research is meant to reveal the contexts in which students find themselves with a certain expectation, either positive or negative, of attending college. There must be factors in their lives that lead them to these decisions. We find, in fact, that it is a combination of factors, the cumulative effect of which is that students choose to attend college, or, perhaps, have that choice removed from their sphere of expectation.

What these students think of their expectation is important to consider. Students with high expectations of college attendance may display or reveal common factors in their lives, backgrounds, and thoughts about college. These factors and thoughts could help to tease out positive changes that can be suggested in the behavior of parents, schools, and society at large. Similarly, common factors in those students who have a low expectation of attending college may suggest what it is that precludes the average students from considering this option.

Our society presents itself as egalitarian, with everyone having an equal opportunity for the American dream. How attainable is this goal and how realistic is the expectation of achieving it when large segments of the population are effectively shut out of higher education? What can be done to assure that our expectations and our rhetoric match up with the reality of our lives?

Some questions present themselves:

1. How do students develop an expectation of participating in post-secondary education?
2. What significant factors influence a student to feel that college is a possibility for him/her?
3. How can parents, schools, and society at large, work together to achieve the objective of making college accessible for all?

The Significance of the Research

This research faces a challenge that is unique to students who are the first in their family to apply and attend college. First, we examine the barriers that face first generation college students who are less successful in matriculating to postsecondary education than others. Research has historically shown that first generation college students, African-Americans, and those from low-income families, are underrepresented in colleges. Hertel (2002) has indicated that lack of familial support and less college knowledge contributes to the vulnerability of first generation students. In addition, York-Anderson and Bowman (as cited in Hertel, 2002), state that lack of knowledge about college and lack of social, emotional, and financial support may increase college attrition rates. Also, Terenzini, Springer, Yaeger, Pascarella, and Nora (as cited in Inman & Mayes, 1999), note that first generation college students usually come from poorer families.

The local significance of this comparative research is to two-fold. First it may provide the high school counselor as well as college advisor, a navigator's guide to assist first generation college students. By examining the guidance counselor-student role, determinations may be made regarding the adequate support provided to these students in college preparation and navigation. Perna (2002) identified five critical components of pre-college outreach programs targeting low-income students, historically underrepresented minorities, and potential first-generation college students. The components are as follows: the goal of college attendance; college tours, visits, or fairs; promoting rigorous course taking; parental involvement; with all of this beginning by the eighth grade.

Those who are from the urban, suburban, and rural areas may face barriers unique to their environment, as they tend to have their own cultures. These various cultures provoke different behaviors and are connected in some degree with the relative academic success or academic failure of their aspiring youth. From a comparative perspective, first generational school performance is lacking in three ways. According to Riehl (as cited in Inman & Mayes, 1999), first generation college students typically have lower high school grade point averages. Second, most theories do not consider the dominant group's collective orientation toward schooling and striving for school success as a factor in academic achievement. And third, the theories fail to consider the first timers' own notions of the meaning of and the "how-to" of schooling in the context of their own social reality. It is necessary to incorporate the perceptions and understanding that the first timers have of their social realities and of their schooling (Ogbu, 1991).

Since first generation college students are the most vulnerable to the complex financial aid process, students with limited means are less likely to seek post-secondary education. College tuition costs are escalating at a rate that is more than three times the rate of inflation and financial aid is steadily decreasing. Therefore, low-income students are also the most vulnerable to the effects of reduced federal and state funding. Despite the availability and large dollar amounts of financial aid (in 1999 more than \$68 billion was provided to postsecondary education students nationwide), college enrollment rates continue to be lower for African-Americans and Hispanics than Whites (Perna, 2002). Therefore, it is imperative that students and parents have the ability to navigate the admission and financial aid process.

In conclusion, it is hoped that this study may yield increased awareness and attention to the plight of first generation students and therefore command a positive change in public policy.

Theoretical Framework/Context

There are four theories that inform our study of first-generation college students and the barriers and opportunities that they face. Although the study uses such concepts as

participant observation and interview strategies, these are shaped by our adherence to the theoretical framework that we have chosen. Questioning, observation, and interviews are important aspects of our study, but the direction that these activities take is determined by the problem that we have identified, and that problem is approached through our particular theoretical lens.

The first of these theories is that of career self-efficacy. Career self-efficacy is the confidence one has about his or her ability to select and succeed in certain careers (Albert & Luzzo, 1999). If any person has confidence that a particular career aspiration is within the realm of possibility, then it is more likely that the person will strive towards it. Aspiration is one of the attributes that we seek as we interview our participants. Many of the questions in our interview survey deal with the presence or absence of a college aspiration in the youth's background.

Career self-efficacy plays into our study in two distinct ways. One of these ways lies in the career choices that students are inclined, or influenced, to make. Certain career choices require a college education, while others do not. If a student aspires to a college career, then that will require an aspiration to college itself. This is exactly the aspiration for which we are fishing in our study.

The second way in which this theory fits into our study is that the decision to attend college can be seen as a career choice in itself. Therefore, career self-efficacy is applicable even in the case of those students who attend college without a specific career in mind as they begin. By not choosing college, one becomes disqualified from a large number of careers. Choosing college, then, is a way to make sure that these career choices are available.

The second theoretical frame for our study is locus of control. This concept certainly contributes to the understanding of career choice aspirations and is important with regard to decision-making. The extent to which a person feels able to make choices, or the amount of control that one feels in directing one's own destiny, may greatly affect the

choices that said person makes, such as whether or not to go to college (Luzzo & Ward, 1995).

The third theory to inform our study is social cognitive career theory, developed by Lent, Brown, and Hackett (as stated in Albert & Luzzo, 1999). According to social cognitive career theory, there are internal and external influences that can help or hinder career aspirations. One result of this, logically enough, is that career interests directly relate to career choice. Also, one's perceptions of barriers and opportunities influence career aspirations and interact with self-efficacy, outcome expectations, and goal setting (Albert & Luzzo, 1999).

Some perceived (and actual) barriers to career self-efficacy are gender and ethnic differences. Other influences can be the expectations of "significant others" regarding students' career goals. Significant others might include parents, guidance counselors, teachers, and friends. The relative strength or weakness of academic skills can be another contributing factor, acting as either a barrier or opportunity. According to Perrone, Sedlacek, and Alexander (2001), students' ability to persevere in challenging academic arenas may also influence their career outcomes.

There may be inherent difficulty in overcoming barriers for students who believe that external factors are unduly impacting them. Some people feel, for example, that their destiny is on a locked course. Why try to change it, when everything has been predetermined? On the other hand, those who feel that they are largely self-determined are more apt to be employed in occupations that are congruent with high career aspirations (Luzzo & Ward as stated in Albert & Luzzo, 1999).

Finally, sociological status attainment theory emphasizes the influences that occur through interactions with family, peers, and school environments (as stated by Hossler in Perna, 2002). Students influenced by their family and/or others may seek similar careers and lifestyles. We expected to find, through the course of our study, that some of the first-generation college students grew up with a low expectation of college attendance

because of seeking lifestyles or careers similar to their non-college-attending parents. In fact, we found exactly the opposite; that students chose college specifically to avoid the careers and lifestyles of their parents or other significant adults in their lives.

Students can be influenced by what others had hoped to become. When, for whatever reasons, these others did not realize their dreams, the push is on for the next generation to achieve what the previous generation did not. This is the case for many of our participants. Parents instill college aspirations into their children to fulfill an unrealized dream that they had for themselves.

Methodology

A vocational school in rural southwestern Pennsylvania is one of the sites for the research study of barriers and opportunities faced by first generation college students. A vocational school is very different in appearance from a traditional high school. Rather than rows of desks and chairs, industrial equipment and a simulated business and industry facade is the norm. Vocational students are usually seen working on many different projects simultaneously. The work is characteristically hands-on rather than paper-pencil, and assignments usually result in a finished product instead of a paper or report.

Students who enroll in this particular vocational school are in grades ten through twelve, and hail from five surrounding school districts. The 380 students are split between a morning and afternoon session. The racial makeup of the school is mostly Caucasian. Forty percent of the students are on free or reduced lunch and 42% have an Individual Education Plan.

A second research site is a Catholic secondary school, grades nine through twelve, located in a wealthy suburb of Pittsburgh, Pennsylvania. It is a college-preparatory school, meaning that the expectation of the administration, faculty, parents, and students, is that graduates will go on to some sort of post-secondary education, usually college. The curriculum and course of studies are geared toward the goal of college acceptance.

Since 98% of the graduates do go on to college, it appears that this is a reasonable expectation.

The word familial is appropriate to describe the environment at this school. With only 557 students, it is a small enough school that most of the students, faculty, staff, and administration know one another by name. Many of these are also related, so school and family lives are often intertwined. This is a strength of the school, as is its socioeconomic diversity.

Although the school building is physically located in a wealthy suburb, most of the students come from the surrounding neighborhoods that are within the city limits of Pittsburgh. If the students who are from the suburbs had gone to their local public high schools, it is unlikely that they ever would have met the constituency from the city, and vice versa. Students from all backgrounds and walks of life attend here, and thanks to such equalizing factors as the school uniform, they have the opportunity to blend without being judged.

Racial diversity is a different issue. Students of color are in the extreme minority. The total number of non-white students is in the single digits. There is, of course, no active attempt to segregate the school. Every student who applies is accepted. There just are not many applications from students of color. Those minority students who are part of the school community are active in every aspect of it, from academics to sports to drama. They are accepted and happy in the school environment.

The third research site from which respondents are culled is a nonprofit organization situated in downtown Pittsburgh. This nonprofit serves inner city youth in a pre-college program. In racial makeup, the population served by this organization is predominantly African-American. In addition, at least 75% of the 125 students enrolled in the program are low-income and first-generation students who aspire to higher education beyond high school.

The program is located on the second floor of a building owned by the Catholic Diocese of Pittsburgh in a downtown location. The building is very accessible for students who use public transportation, being on both a bus line and a Port Authority Subway line.

Participants from all sites were interviewed in order to discern their expectations of college attendance and success. Questions, included in the Procedures section of this document, are geared toward an explication of the theoretical framework of our study. In particular, issues of self-efficacy and locus of control, as explained in the section accompanying the questions, are important.

Procedures

The study began by first selecting students who have expressed a desire to attend a two- or four-year college. Then it was determined if these students are first generation college-bound students. After this select group was established, permission to participate in the study was obtained from parents or from the students themselves, depending upon the students' age. Those who were over eighteen at the time of the interview gave their own permission.

Although the participants had the common characteristic of being first-generation college students, they were also chosen in other ways, so as to obtain maximum variability among our respondents. Differences in gender, location (i.e. rural, urban, suburban), school setting, and race/ethnicity, were taken into account when choosing participants. In evidence of our careful selection, our participants were evenly divided as to gender, with three girls and three boys. Racially, the rural and suburban students were Caucasian, while the urban students were both African-American.

As part of the permission that students gave or obtained from parents, the rights of the participants were explained via the form attached in Appendix A. In addition, issues of confidentiality were guaranteed on the same form. This form is based upon the "Consent to Participate in a Research Study" form used by Duquesne University.

Validity of the study is verified by triangulation. The three researchers approached this work from unique points of view and strove to keep one another in line with its stated goals (Glesne, 1999). It is not a confounding validity issue that each of us is working with his/her own student population. We still provide checks and balances, as peer review of the work completed is required at every stage of the investigation.

In addition, rich descriptions are the norm. Thus, the level of detail provided gives some assurance that the work is approached with a high level of involvement and dedication. Thus, not only validity, but trustworthiness of the data are established.

Access to the participant population is not problematic in any of the three settings. In each case the researcher is already a part of the community in question. Not only is this ease of access a convenience to the researchers, but it also allows for some measure of built-in rapport. The researcher is already known to the participants in some fashion and some trustworthiness has already been established.

Instrumentation

The following questions were developed by the researchers in order to help explicate the purpose of the research. This first group of questions is meant to develop some background information on each participant:

1. Which schools have you attended?
2. How well do you do in school?
3. What do you like most about school?
4. What do you like least about school?

While the first question is a friendly, getting-to-know-you type of question, numbers two through four are related to the theory of Perrone, Sedlacek, and Alexander (2001) concerning students' ability to persevere in academics. If a student does well in school despite having much about an academic environment that he/she does not like, this could indicate the perseverance of which they speak.

Additionally, these first questions are intended to establish background. They deal with the student's past school performance and expectations. The remainder of the questions relate specifically to the student's future plans and aspirations. It is with these questions that many of the self-efficacy issues discussed above come into play.

5. What are your plans after high school?
6. Which parts of the school system, if any, have helped you to shape your plans?
7. Has any person influenced you regarding your future plans?
 - a. What are their careers?
 - b. How did they reach their career goals?
 - c. What, if anything, about their accomplishments has influenced you?
8. What specific steps are you taking to reach your goals?
9. Are you confident in reaching your goal?
10. Who would you say is responsible for you reaching your goal?
11. What difficulties have you experienced in pursuing your future plans?
12. Has anyone stifled you in your pursuit of your future plans?
13. What kind of influence do you think you have on your brothers/sisters?
14. Is there anything you would change to reach your future plans?
15. Were you encouraged to go to college?
16. Why do you want to attend college?

There are clear links between these questions and each of the theories outlined above. References to the significant others, of whom Perrone, Sedlacek, and Alexander speak, are evident in questions 3, 8, 9, and 15. Issues of self-determination, as outlined by Luzzo and Ward, inform questions 4, 5, and 6.

From the sociological status attainment theory of Hossler, questions like 3, 7, and 9 emerge. And finally, locus of control and self-efficacy play a part in how a student will answer questions 1, 2, 10, and 16.

Data Analysis

Full text of the responses to our interview questions can be found in Appendix B. As we sifted through the data, however, several themes emerged that had relevance to the questions posed on page five, above. In particular, six themes emerged from our study of the data, as it relates to students' aspirations to attend college as the first generation in their family to do so. These are

- Positive Experiences/Opportunities – School-Related
- Negative Experiences/Opportunities – School-Related
- Positive Experiences/Opportunities – Home-Related
- Negative Experiences/Opportunities – Home-Related
- Responsible Parties
- Steps to Reach Goals

The first four of these categories are self-explanatory. The fifth has to do with the people that our subjects claim to have had some influence over their selection of college/career. These might be people or institutions. The sixth category involves the self-reported steps that these students will take to reach their stated goals. In order to code the data, we applied numbers and categories as illustrated in Table 1. These categories allow us to sort the interview answers into an easily readable format.

Table 1:

Positive Experiences/Opportunities – School Related	
	10 – Have good grades
11 - Perfect attendance	12 – Student recognition
13 – Playing sports	14 – Likes classes
15 – Working with other people	16 – Be with friends
17 – Get to learn	18 – Teachers
19 – Clubs	20 – Principal
21 – Curriculum	22 – Class showed me what's out there
23 – College attendance expectations	24 – Assessment test requirements

Negative Experiences/Barriers – School Related	
40 – Doesn’t teach us enough	41 – Meaningless classes
42 – Teachers aren’t fair	43 – Rude students
44 – Cliques	45 – Immature students
46 – A lot of distractions	47 – Not allowed to take more rigorous classes
48 – Bad grades	49 – Hard classes
50 – Lack of motivation	51 – Classmates/teachers discourage career choice
Positive Experiences/Opportunities – Home-Related	30 – Parent/s say college is a good thing
31 – Parent/s say follow your dreams and plans	32 – Parent/s say go to school and not to be like them
33 – Parent/s say to never give up	34 – Seeing the adversity they had to overcome and see them be able to achieve
Negative Experiences/Barriers - Home-Related	
60 – Want to get away from home	61 – Family members discourage career choice
62 – Get a degree to get out of town	
Responsible Parties	
70 -- Myself	71 – My parents
72 – My teachers or school	73 – Other significant adults in my life
Steps to Reach Goals	90 – Visited schools
91 – Read brochures	92 – Took PSAT/SAT
93 – Internet search	94 – Guidance counselor
95 – Completed grant/FAFSA forms	96 – Try to do well in school
97 – Join military to pay for college	98 – Take leadership classes
99 – Be with mentors	100 – Received scholarship

Table 2 is the summary of how the interview responses fit into the categories that we established. By reading down each column, one may see the similarities and differences in answers given by the study participants. For example, reading down the first column, one can see that every one of our respondents claimed to do well in school, or to have good grades.

Beginning with the first column of Table 2, Positive School-Related Experiences, we can see several areas of commonality in the responses of our participants. One, named above, is the fact that they all do well in school. Career self-efficacy, then, appears to be at work with these students. They see themselves as being good at something (i.e. learning) and they wish to continue with it.

All but one of the respondents also listed being with friends as one of the things that they liked best about school. From this response we can relate back to our theoretical base to say that we see a high correlation between social engagement and college aspiration, since all of these students aspire to go to college.

Table 2:

Student	Positive Experiences/ Opportunities – School-Related (10 – 24)	Negative Experiences/ Barriers – School-Related (40 – 51)	Positive Experiences/ Opportunities – Home-Related (30 – 34)	Negative Experiences/ Barriers - Home-Related (60 –62)	Responsible Parties (70-73)	Steps Goals (90 – 9
R1	10, 14, 15, 16, 17, 22	40, 47	30, 32, 33		70, 71, 72	90, 91,
R2	10, 14, 16, 17, 19	41, 42, 51	30, 31	61, 62	70, 72	90, 92,
S1	10, 16, 18, 20, 21, 23	42, 43, 44, 48, 49	30		70, 71, 72	96
S2	10, 16	42, 50	30		70, 71, 73	97
U1	10, 17, 24	42, 48, 50	34	60	71	96, 98,
U2	10,16, 17, 18	45, 46	31		71, 72	95, 96,

Additionally, most of our respondents listed learning (#17) as one of their positive school experiences. Liking to learn, one of the social cognitive career orientations of the participants, will definitely add to their desire to attend college. One who does not like to learn will not see much that they like about college attendance. Interestingly, neither of the students from the suburban setting listed this as one of their positive school

experiences, focusing instead on social aspects of the school environment and liking the people that they are with.

In the category of bad school-related experiences, a majority of the participants named unfair teachers as a school related negative. Couple this with the responses of many of them that teachers have a great influence on them, several conclusions can be drawn. One conclusion is that, despite the appearance that some of their teachers were unfair in some way, the positive exposure that the others had on them must have overcome this negative. Another conclusion is that teachers may influence their students in career-related ways more than they do in social ways. Note the fact that only two of our respondents named teachers as a positive aspect of their school experience, yet four claim them as people in some way responsible for their success in school and their college aspirations.

In the realm of positive home experiences, parents figure prominently, with every answer in this category involving them in one way or another. The most common response is that parents tell these students that college is a good thing, and this leads the students to seriously seek a college education. Other responses are scattered, with one or two responses for each of the other answers.

Very few negative home experiences are reported by our respondents, with only one of the rural students and one of the urban students saying anything that could be construed as negative about their home life. In both cases, the students claim wanting to “get away from home” or to “get out of town” as their reasons for going to college.

When one considers the previous answers, it should, perhaps, not be a surprising result that when we come to the category of “Responsible Parties,” parents figure prominently. What is surprising, however, is the clear split between the urban students and all others. While all other students claim responsibility for their own success, showing a high amount of career self-efficacy, the urban respondents give almost all credit to their parents. In particular, their answer to our question number ten, “Who would you say is

responsible for you reaching your goals,” stands out as unique. All other respondents answered that they were, themselves, responsible, while giving some due to their parents. The urban students, though, give full responsibility to their parents. Perhaps we can conclude that sociological status attainment is higher for these students, while self-efficacy rules for all the others.

Finally, in terms of steps that the students have taken to reach their goals, responses are all over the board, with very few commonalities. There is some agreement in the taking of standardized tests, like the SAT and PSAT, but even there, we have to question the results. For example, neither of the suburban students named this as one of their preparations for college, despite the fact that both are going and have, in fact, already been accepted. Surely, they have taken the SAT.

There may be a difference here in perception, rather than in the facts of the matter. In a school where almost the entire senior class is off to college, taking the SAT probably does not stand out as a specific college-preparatory activity. On the other hand, in a school or setting where many fewer students plan to go to college, the one who takes the SAT stands out and feels that it is a noteworthy achievement.

Conclusions

Based upon the data collected, it appears that self-efficacy, locus of control, and social attainment status are indeed strong influences on the first-generation college student. Those who have a strong motivation within themselves, or who have parents with a strong sense of the importance of college, will have an aspiration to attend college and will act upon it. Along with parents, teachers and peers play an important role in a student's decision to attend college. Even though teachers are not universally liked, or seen as being ultimately fair, their influence is such that they are still named by most of our respondents as being important to their college and career-related decisions.

There are a few limitations to our study and several implications for further research. The first of these is in the realm of sample size. Due to time constraints, our sample was

limited to two students per school setting. A similar study should be carried out using a larger sample size. Polling every first-generation college-bound senior could yield different results that could be more generalizable to other populations.

A second limitation is the multiplicity of interviewers that were used in our study. With each of the three researchers asking his/her questions separately, it is possible that a different slant, or emphasis, was used by each of us. Responses might indicate that slant. If the study is replicated in future, and with more participants, perhaps a printed questionnaire could be used, with enough space for respondents to write their answers that they do not feel constricted in the length of the answers that they give.

Indeed, it may not be prudent to do a study like this with questionnaires at all. To get richer descriptions, interviews may be required, and this is another limitation of our study. Again, due to time constraints, we interviewed our participants only once. Further interviews with each of these students would yield interesting results, particularly if repeated over a long period of time. To see how these same students fare after one year of college, and perhaps again four years after high school graduation, would certainly shed new light on the issue of college preparation, availability, accessibility, and aspirations.

A final limitation of our study is the fact that we only interviewed college-bound students. Although our intention was to get information about the barriers that these first-generation students faced and opportunities that they were afforded, we got very little information to tell us about discouraging or confounding factors in their college aspirations. These students were always encouraged to go to college. They were given opportunities that perhaps their peers were not given. It could be that our small sample size precluded us from talking with any college-bound students who faced noteworthy difficulties. On the other hand, it could be that those students who are not college-bound, and thus did not fall under our selection criteria, are not college-bound specifically because of those difficulties.

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APPENDIX A -- INFORMED CONSENT
CONSENT TO PARTICIPATE IN A RESEARCH STUDY

TITLE: Barriers and Opportunities Faced By First-generation College Students

INVESTIGATORS: Wayde Killmeyer Sylvester Pace Janice Quaily
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SOURCE OF SUPPORT: This study is being performed as partial fulfillment of the requirements for the doctoral degree in Educational Leadership at Duquesne University.

PURPOSE: You are being asked to participate in a research project that seeks to investigate the college-related goals and aspirations of high school students whose parents did not attend college. In addition, you will be asked to allow me to interview you.

RISKS AND BENEFITS: There are no risks to the participants. Benefits may include a better understanding of the college application process.

COMPENSATION: There is no compensation to the participants. However, participation in the project will require no monetary cost to you.

CONFIDENTIALITY: Your name will never appear on any survey or research instruments. No identity will be made in the data analysis. All written materials and consent forms will be stored in a locked file in the researcher's home. Your responses will only appear in statistical data summaries. All materials will be destroyed at the completion of the research.

RIGHT TO WITHDRAW: You are under no obligation to participate in this study. You are free to withdraw your consent to participate at any time.

CONSENT:

Student name (please print) _____

Signature: _____ Date: _____

Parent/Guardian

Signature: _____

Date: _____

Appendix B – Raw Data

Legend: R1, R2 = rural students, S1, S2 = suburban students, U1, U2 = urban students

1. Which schools have you attended?

R1 – Carmichaels
Vo-Tech

R2 - Margaret Bell Miller Middle School
East Franklin Elementary
Waynesburg Central HS
Vo-Tech

S1 - St. Catherine of Sienna, K- 7
Brookline Regional Catholic, 8
Seton-La Salle High School 9-12

S2 - Aiken Elementary K- 6
Keystone Oaks Middle School 7-8
Keystone Oaks High School 1st quarter of 9
Seton-La Salle High School Remainder of 9 through 12

U1 - Christian Temple Academy K-3,
Friendship Academy, 4-5
Arsenal Middle School 6-8
South Vo-Tech 9-12

U2 - Schaffer K-5
Greenway Middle School 6-9
Oliver H.S

2. How well do you do in school?

R1 - I get A's and B's

R2 - Good -I'm not sure exactly, but it's good-it's not really bad. I usually get B's

S1 - Fairly well, I'm about a B student.

S2 - Fairly well.

U1 - From K-5TH I had below-to-C average. From 6 and up I was on honor roll, perfect attendance, student of the month, I started playing a lot of sports and this made me want to be in school more.

U2 - I usually had all A's through high school with a 3.5 GPA.

3. What do you like most about school?

R1 - I like art class and gym. I like drafting. I like working with other people at Vo-Tech. I get to be with my friends at both schools. I get to learn.

R2 - Friends and some teachers; some of the classes are fun. I like English and those clubs - yearbook and camera clubs.

S1 - Some teachers, the principal is cool, friendly kids, and the good curriculum.

S2 - Being with friends.

U1 - Getting away from the house and mostly the educational part.

U2 - Social atmosphere and I get to learn.

4. What do you like least about school?

R1 - Carmichaels doesn't teach us enough.

R2 - Classes that won't mean anything to anybody, like gym class. Some of the teachers aren't really fair - they like one group of students better than another group. Like some teachers will talk to the more popular students and not be so nice to the other ones.

S1 - People who cut in the lunch line, cliques, some unfair teachers.

S2 - Certain faculty members who make life difficult.

U1 - It's like people trying to hold you down so you can't get your education.

U2 - Forty percent of the students act like little kids. There are a lot of distractions that take away from your learning.

5. What are your plans after high school?

R1 - I plan to go to college and major in Industrial Design.

R2 - I think I'm going to go to Westmoreland Community College for photography. After that I might go for journalism somewhere else.

S1 - Go to college (Slippery Rock University), major in biology, career in biology, preferably dealing with animals in some way. Money is not important.

S2 - A stint in the military, then back in Pittsburgh in January to attend LaRoche College

U1 - To attend a college, go to a college and do everything I have to do to get out, major in psychology and criminology, and get good grades

U2 - Go to college, graduate and have a successful career. Open up my own business.

6. Which aspects of the school system, if any, have helped you to shape your plans?

R1 - By taking Drafting, it showed me what's out there for me.

R2 - I was on the yearbook committee this year. I took pictures and wrote captions. I knew before joining that I wanted to do photography.

S1 - The college-prep curriculum and the college attendance expectations of the high school teachers.

S2 - None. I made up my mind myself.

U1 - As much as I hate to say, but it's the assessment test, the requirements that you need to pass to get a seal on your diploma made me dig deeper, so we can pass.

U2 - I would say probably my teacher.

7. Has any person influenced you regarding your future plans?

R1 - My parents told me to not be like them and go to school ever since 10th grade.

R2 - I don't think so actually. The English teachers (11th grade) have made me think about journalism. Some of the topics they brought up were interesting and could be argued a lot of different ways. In 11th grade we had a lot of debates.

S1 - My parents.

S2 - My military recruiter.

U1- My football coach, mother, brother, you (Mr. Pace), and Dr. Graham.

U2 – A teacher.

a. What are their careers?

R1 - Mother-housewife, mom; Dad-diesel mechanic

R2 - English teachers

S1 - Father is a boilermaker (retired) and mother is in accounts payable at Duquesne Light.

S2- He, obviously, has a military career.

U1 - Football Coach, my mother works for Access Transportation, my brother works for the post office, you work for NEED and Dr. Graham works for Cal University.

U2 - She is teacher.

b. How did they reach their career goals?

R1 - I have no idea. I guess they had no choice. It's just a job. They had no choice but to get whatever job was out there.

R2 - They figured out what they wanted to do and stuck with it.

S1 - Both went to work right out of high school.

S2 - He served in two branches of the service.

U1 - Best way is to maintain control over their life and working hard

U2 - She went to 2-3 different colleges.

c. What, if anything, about their accomplishments has influenced you?

R1 - They would tell me: Never give up. Do what you have to do. If you fail the first time, don't quit. I don't know.

R2 - They're happy. They seem to like what they're doing and seem to be happy with themselves everyday.

S1 - Nothing about their accomplishments has influenced me, except to convince me that I don't want to spend my life in jobs like theirs.

S2 - No, his accomplishments have not influenced me. He's an ass!

U1 - Just some of the adversity that they had to overcome to achieve, and seeing that they were able to achieve, I feel like I should be able to achieve also.

U2 - She did not hold anything back. She instill something in him. I was encouraged by her.

8. What specific steps are you taking to reach your goals?

R1 - I'm checking out colleges - I visited technical schools. I've read brochures about California University of PA - that's where I want to go. I've taken the PSAT. I'd like to visit Cal U this summer.

R2 - I visited the Art Institute and the programs are really nice, but so expensive. I've been searching on the Internet for PA colleges offering photography. I have found there are a lot in Philadelphia, but I don't think I want to go there; it's too far. The vocational guidance counselor told me about Westmoreland Community College and as soon as I get my grant forms filled out I'll probably apply there. I've registered for a PIN number, so I can complete grant applications online. I've taken the SAT in January. I've also looked for colleges with journalism but I can't find colleges with both. I have spoken to my great uncle about going to school (his wife is going to college now). He told me "you have to be in a four-year college because you otherwise won't accomplish as much". I didn't like his remark because you're just wasting time on things that don't apply to what you want to do. When I talked to my mom, she said it would be a really good thing to do. She says to follow my dreams and plans. My mom has 9 brothers and sisters and only one graduated from high school. My mom dropped out because she was expecting me.

S1 - Trying to do well in high school, planning to do well in getting my bachelor's degree, and have tentative plans to go for a Master's degree immediately afterward.

S2 - The military is only involved to pay for the college.

U1 - Going to school, studying hard, taking leadership classes, and basically getting involved with people that are in places that I want to be, and being able to take their steps my way so I can achieve it.

U2 - I'm learning as much as possible that has value, fill out the FAFSA. I Got a scholarship already. So I'm already reaching my goals.

9. Are you confident in reaching your goal?

R1 - Yes. I'm very confident, no matter what gets in my way I'm still going to do it.

R2 - Yeah, it's just one of those things I want to do.

S1 - I believe so. I'm nervous, but confident.

S2 - Yes!

U1 - Yes

U2 - Very confident

10. Who would you say is responsible for you reaching your goal?

R1 - Me, my parents, maybe teachers. I am responsible for having confidence in myself. My parents are responsible by giving me confidence in myself. The teachers show me what's out there - schools and careers.

R2 - I am. Nobody else can do it.

S1 - Myself. My mother helps, but definitely myself.

S2 - Me and my parents. My mother is remarried, and all three of my parents have helped me and continue to help me. It's definitely a group effort.

U1 - Probably my mom.

U2 - Both of my parents.

11. What difficulties have you experienced in pursuing your future plans?

R1 - I haven't taken enough math - because a lot of stuff I do in Drafting - I've never had the math. At my school district, if we go to the Vo-Tech, they treat us like we're "speds" or "retards". In my school's math, I'm just doing addition and subtraction. I'm in Applied Math. I'm not able to take Algebra or Geometry because I go to the Vo-Tech. I had Algebra in 8th grade and made straight A's. They made me take Applied Math in 9th grade instead of Geometry because I wanted to go to the Vo-Tech.

R2 - For a long time, I couldn't decide what I wanted to do. There was so much I wanted to do and I couldn't decide. Some people (aunts, uncles, neighbors, classmates, some teachers) just think photography is a hobby rather than a career. But somebody has to do it.

S1 - Bad grades, hard classes, and occasional harassment by fellow students.

S2 - Lack of motivation.

U1 - Probably the ups and downs of grades, probably sometime a lack of dedication during work. Being ignorant thinking that the teachers will help me because I'm an athlete. The most important is probably financial.

U2 - There was a time I thought of not going to college after school. I found out that 90% of the jobs you need some sort of training for them.

12. Has anyone stifled you in your pursuit of your future plans?

R1 - No.

R2 - I don't think so other than the people who have tried to get me to think of other options.

S1 - No.

S2 - No.

U1 - I would have to say myself. There were times I felt like not pursuing college just going onto the army or staying home and just pursuing odd jobs here and there.

U2 - A couple of people through the years have tried. If you see me in person you would not think I was in education.

13. What kind of influence do you think you have on your brothers/sisters?

R1 - I talk to my brother (6th grade) about coming to the Vo-Tech. I've asked him what his plans are (they change a lot). I've told him to look at a lot of colleges before choosing one.

R2 - My sister is 11 years old. I think I tried to give her the message that you don't have to be everything that everyone else wants you to be. For example, peer pressure and family expecting too much that you can't - it's impossible to accomplish. I've talked to her about high school plans.

S1- None, really, but I help him with writing and with creative projects.
(She has one brother who is three years older.)

S2 - None. (He has two siblings, the older of which is currently 7.)

U1 - I think I have a very positive influence because they see me about to go to college and I think that they will look at my goals and want to achieve more than I did.

U2 - Being that I am the oldest in the house they look up to me. They sort of copy me. If they see me wanting to go to college they may want to go. I have a lot of influence.

14. Is there anything you would change to reach your future plans?

R1 - I would get a better education - math and science, like trig, chemistry or physics.

R2 - I would have taken the journalism class in high school. I would have joined the yearbook and camera clubs earlier.

S1 - Work a little harder and be less sexually backward.

S2 - The hard parts, like the military, paying for college, and so on.

U1 - Probably my study habits. That would probably be it since I taught myself how to sit down.

U2 - I may change what college I attend. Maybe.

15. Were you always encouraged to go to college?

R1 - Yeah. My parents were always telling me to go since I was little.

R2 - I was encouraged to do what I wanted to do-no matter what it was.

S1 - Yes, yes, yes, and more yes. Because they didn't go to college, they really wanted me to go.

S2 - I was always strongly encouraged to go to college.

U1 - Yes, I'm the first one to go so everyone is boosting me to go.

U2 - I was always encouraged to make something of myself. My parents would always back me up in what I do.

16. What is your reason for wanting to go to college?

R1 - I can't afford not to go. There are no jobs out there without a college education.

R2 - My reason for getting a college degree is to get out of town and make something of myself.

S1 – To get a good job.

S2 – For a good job.

U1 - To further my education and to become successful in life.

U2 - Better myself