

ACCESS AND SUCCESS – APPALACHIAN OHIO

Report 2: Preliminary Analysis of High School Students Survey

Prepared by
Voinovich School of Leadership and Public Affairs
Ohio University

APRIL 2008

Acknowledgements

Many people were crucial to the success of this portion of the Access and Success – Appalachian Ohio study, and we are grateful for their support and assistance. This large survey, conducted in 25 high schools across a significant portion of the state of Ohio, would not have been completed without the many hours and miles contributed by staff at the Ohio Appalachian Center for Higher Education and Ohio College Tech Prep. These organizations shouldered most of the burden of collecting consent forms and administering surveys. We cannot thank them enough.

Ohio University acknowledges and very much appreciates the vision and support provided throughout this ongoing project by of all four partner organizations, Ohio Appalachian Center for Higher Education, Ohio Board of Regents, Ohio College Access Network, and the Ohio College Tech Prep Program.

Very special thanks goes to the participating school districts, high school principals, school counselors, teachers, and project coordinators who allowed us into their schools and helped us to collect consent forms and conduct the survey. We are keenly aware of the multiple demands on their time and on students' attention.

The biggest thanks of all goes to the class of 2008—the high school seniors from Appalachian Ohio who completed our fall survey. We look forward to connecting with them again as they prepare to graduate from high school and as they enter their first year of college or go to work.

Project staff at Ohio University's Voinovich School of Leadership and Public Affairs for this portion of the Access and Success study included Marsha Lewis, Holly Raffle, Anirudh Ruhil, and Nicole Yandell. Ohio University students were an integral part of the project team. They included graduate student Mayla Puckett and undergraduate students Holly Craycraft and Vanessa Newton. All three are Ohio University students from Appalachian Ohio counties.

Table of Contents

List of Tables and Figures.....	1
Preface.....	2
Executive Summary	3
Introduction	5
How the Survey Was Conducted	5
The Survey Instrument.....	5
Sample Selection and Survey Deployment.....	6
 Survey Results	
High School Seniors' Plans for Higher Education	8
Students' Predictions of Future Educational Attainment	11
Location of College	12
Preparation for College	15
Influences on 12 th Graders Plans for Higher Education	17
People with the Most Influence on Students' Decision to Attend or Not Attend College	17
Most Important Factors in Selecting a College.....	18
Barriers to Higher Education	19
Seniors' Self-Reported Preparedness for College	21
Career Plans	21
 Conclusion and Next Steps.....	25
 Appendix A- Fall High School Survey Instrument	26
Appendix B- Sample High Schools	33
Appendix C- Sampling Procedures, Survey Deployment, and Subsample Analysis	34
The Survey Process.....	34
Response Rate	34
Response Bias	35
Appendix D- Coefficients and Standard Errors for Analysis of Factors Contributing to College Success	37
Appendix E- Respondent Characteristics	38

List of Tables and Figures

Tables

Table 1. Fall 2007-08 12 th Graders' Intention to go to College	8
Table 2. High School Seniors' Predictions of their Future Educational Attainment.....	11
Table 3. High School Seniors' Planned Location of College, 1992 and 2008.....	13
Table 4. High School Program of 2008 12 th Graders	16
Table 5. College Readiness Behaviors of 2008 12 th Graders by Parental Educational Attainment	16
Table 6. Individuals with the Most Influence on 2008 High School Seniors' Decision to Attend or Not Attend College.....	17
Table 7. Most Important Factors Considered by High School Seniors When Selecting a College.....	18
Table 8. Major Problems or Difficulties Faced by 12 th Graders Regarding College.....	19
Table 9. High School Seniors' Self-Reported Major Problems Encountered Regarding College, 1992 and 2008	20
Table 10. High School Seniors' Planned Occupation/Career Choice	22

Figures

Figure 1. Percentage of 12 th Graders Planning to Enroll in College Immediately After Graduation, 1992 and 2008	9
Figure 2. Students' Plans to Continue Education Right After High School By Educational Level of Parents and Participation in College Access Program	9
Figure 3. Fall 2007-08 High School Curriculum of 2008 12 th Graders	15
Figure 4. Fall 2007-08 STEM- and Medical-Related Career Choices of 2008 12 th Graders by Gender	23
Figure 5. Percent of 2008 High School Seniors Planning to Pursue STEM- or Medical-Related Career by Economic Development Region.....	24

Preface

This document is the second of five reports that will be completed as part of a two-year study titled, *Access and Success—Appalachian Ohio: College Access, Retention, Postsecondary Pathways, and Completion*. This project is motivated by the need to compile more comprehensive and current data that organizations can use to develop effective programming that will help students from Appalachian Ohio access and complete a postsecondary program. The data necessary to support program decisions include the aspirations, preparation, and decisions of high school students related to higher education as well as the barriers they face related to college access and success.

Much of the current college access information for Appalachian Ohio was initially researched through the 1992 *Appalachian Access and Success* study. The current two-year project (2007-2009) replicates portions of that study, updates the original data, and collects additional, primary information on degree completion and entry into the workforce. Where possible, the results of this survey are compared to the 1992 high school survey results.

Executive Summary

This report presents preliminary findings from the first of two surveys of the high school class of 2008 in Appalachian Ohio. The results presented here are from the survey conducted in the fall/winter of the 2007-08 academic year. The survey was conducted in 25 high schools located throughout the 29-county Appalachian Ohio region. In all, 1,145 high school seniors completed the survey for an overall response rate of 38 percent.

- **Four out of five students plan to continue their education right after graduating high school.** This percentage is higher for females than for males and higher for students with at least one parent who attended college.
- **More seniors from the class of 2008 plan to attend college right after high school than their counterparts in 1992.** The percentage of seniors planning to continue their education immediately after high school is 16 percentage points higher in 2008 than in 1992.
- **A large proportion of 2008 12th graders (28 percent of all respondents) are planning to enter the nursing/allied health fields.** Males are more likely to express a career interest in business, law enforcement, skilled hard trades (carpentry, welding) and the hard sciences (computer science, engineering).
- **Having a parent who has attended college increases the likelihood that a senior plans to continue his or her education immediately upon graduation.** Students whose parents have college experience are significantly more likely to report plans to continue their education right after high school (89 percent plan to) as compared to students reporting neither parent attended college (75 percent of these students plan to continue their education right after high school).
- **Participating in a program in high school that helps students prepare for college increases the likelihood that students plan to attend college right after graduation and narrows the gap between first generation college students and students with a parent who has attended college.** Among students participating in a program to help prepare for college, 83 percent of would-be first generation college students and 93 percent of students whose parents have

some college report that they plan to continue their education right after high school. In addition to this narrowing of the gap between students with and without parental college experience, the overall percentage of students who plan to attend college right after high school is greater for students who participated in a high school program to prepare them for college.

- **Approximately 70 percent of the 2008 graduates report participating in a college prep or tech prep course of study.**
- **Seventy-two percent of 2008 respondents report that they are educationally prepared for college, compared to 58 percent of the respondents in the 1992 survey.**
- **Parents, followed by peers and friends have the most influence** on a student's decision to attend or not attend college.
- **Almost half of the students who plan to continue their education indicate that they plan to attend a college close to their home.** Of the 2008 sample, 47 percent indicated that they planned to attend an Ohio college within fifty miles of home. Another 25 percent indicated plans to attend a college in Ohio, but farther away than 50 miles. Eleven percent expressed plans to attend college in a neighboring state, and another 3 percent planned to attend in some other state. Approximately 14 percent were unsure at the time of the fall survey.
- **Overall, high school seniors ranked lack of finances as their biggest problem or difficulty regarding college.** Lack of information in terms of college programs and financial aid was also found to be high on the students' list of major problems or difficulties, followed by the desire for an immediate income (25 percent of the respondents).
- **In 2008, 37 percent of students indicate they cannot afford college compared to approximately 33 percent of the 1992 respondents.**

Introduction

This report presents preliminary findings from the first of two surveys of high school seniors in Appalachian Ohio. The first survey was conducted in the fall/winter of the 2007-08 academic year. The second survey will be conducted in the spring of the current academic year as high school graduation nears. What is presented here is mostly descriptive information summarizing the responses to key questions related to high school seniors' preparation, aspirations, and plans for higher education, as well as self-reported catalysts and barriers to higher education. Where possible, these survey results are compared to those of the 1992 high school survey portion of the first *Appalachian Access and Success* study.

A more complete analysis of the fall survey data will be conducted when the spring high school survey data are available. Specifically, individual student's fall and spring responses will be linked in order to examine (a) decision making during the students' senior year of high school, (b) changes in articulated responses across the two surveys, (b) students' educational and career aspirations and future plans at the time of their high school graduation. Data combined from both fall and spring surveys will also be compared to findings from the 1992 study and benchmarked, where possible, against data from the most current national studies of post-secondary educational access and completion.

How the Survey Was Conducted

The Survey Instrument

The fall high school senior survey instrument (see Appendix A) was developed by selecting items from the 1992 *Appalachian Access and Success* high school survey instrument and supplementing those with items from national surveys of high school students conducted by the National Center for Education Statistics.¹ In order to best accommodate the diversity of resources available in the sampled high schools, the instrument was developed for both web-based and paper-and-pencil delivery. A total of 806 students completed the paper version of the survey, and 339 students completed the survey via the web-based interface.

¹ National Center for Education Statistics surveys utilized for questions included *High School and Beyond* and the *Education Longitudinal Survey*.

Sample Selection and Survey Deployment

The original sampling frame included all public K-12 school districts in the 29-county region of Appalachian Ohio (N=217). A stratified random sample was selected, with stratification to ensure representation of high schools with and without active college access programs. Twenty-eight high schools in 14 counties were selected into the original sample, but five schools declined to participate. Once the survey was in the field and some preliminary results were available, two joint vocational schools were added to the sample in order to facilitate the inclusion of students involved in tech prep and vocational programming. The Tri-County Career Center in Nelsonville, Ohio² and the Collins Career Center near Chesapeake, Ohio were selected on the basis of convenience and their willingness to participate in the survey process. Although only two in number, it should be noted that together these career centers serve 16 school districts in four counties located within the study area. See Appendix B for high schools participating in the fall and spring high school survey.

Once the schools were selected and agreed to participate, staff from the Ohio Appalachian Center for Higher Education, Ohio College Tech Prep, and Ohio University's Voinovich School contacted the high schools to establish the process for securing consent from students and parents, and for deploying the fall survey.

Ohio University's Voinovich School received 1,145 completed surveys by March 19, 2008 for an overall response rate of 38 percent. While the 2008 sample is comparable to the 1992 sample in the number of responses and number of high schools and counties surveyed, the overall response rate is lower than the 1992 response rate of 69 percent. The lower response rate for the 2008 survey is most likely due to two key differences between the current study and its 1992 predecessor, the requirement for active parental consent and an increase in the overall number and variety of surveys that are now deployed in the public schools.

Since the 2008 response rate was lower than the 1992 response rate, it is important to assess comparability and potential bias. In order to examine both response bias and

² Tri-County seniors were not surveyed in the fall because of scheduling conflicts, so no data from Tri-County Career Center are presented in this report. Tri-County seniors will be surveyed in the spring of 2008.

comparability with the 1992 sample, a subsample of 2008 respondents were chosen based on the response rates of individual high schools. This comparison of the full 2008 sample to the high response rate subsample indicates acceptable levels of similarity in respondents. It is reasonable to assume that data from the two samples can be compared. However, when 2008 results are compared to 1992 results, the subsample statistics were also calculated and any discrepancies reported. For a more detailed description of sampling procedures, consent requirements, details of survey deployment and the subsample analysis, please refer to Appendix C.

Survey Results

In the sections that follow we discuss key findings from the fall survey. This discussion involves only a subset of the questions asked on the survey. The responses selected for analysis at this time were to questions deemed most important for the study's overall purpose – determining what students indicate about their likelihood of attending college, when and where they intend to do so, and important barriers and positive influences on their decision to pursue education beyond high school.

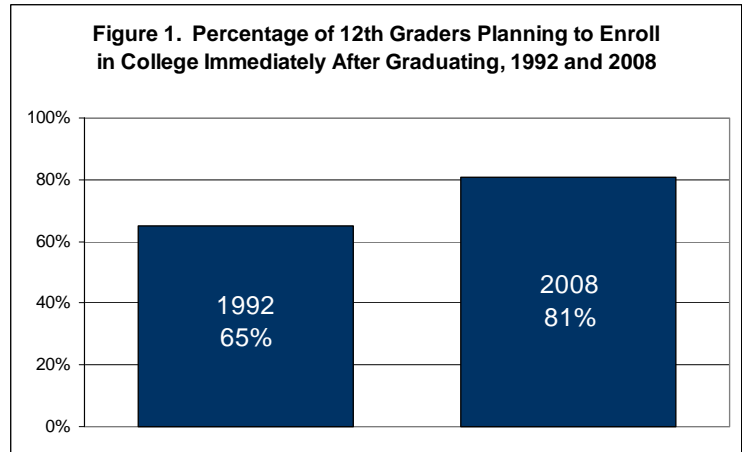
High School Seniors' Plans for Higher Education

The fall survey instrument asked 12th graders several questions regarding their plans after graduating high school. Approximately 81 percent of the respondents indicate plans to continue their education right after graduating high school. This percentage is higher for females than for males, and higher for students with at least one parent who attended college. Only two percent of the seniors indicated no plans to continue their education some time in the future, but 10 percent said they either didn't know when this would be or thought it would be more than a year from now.

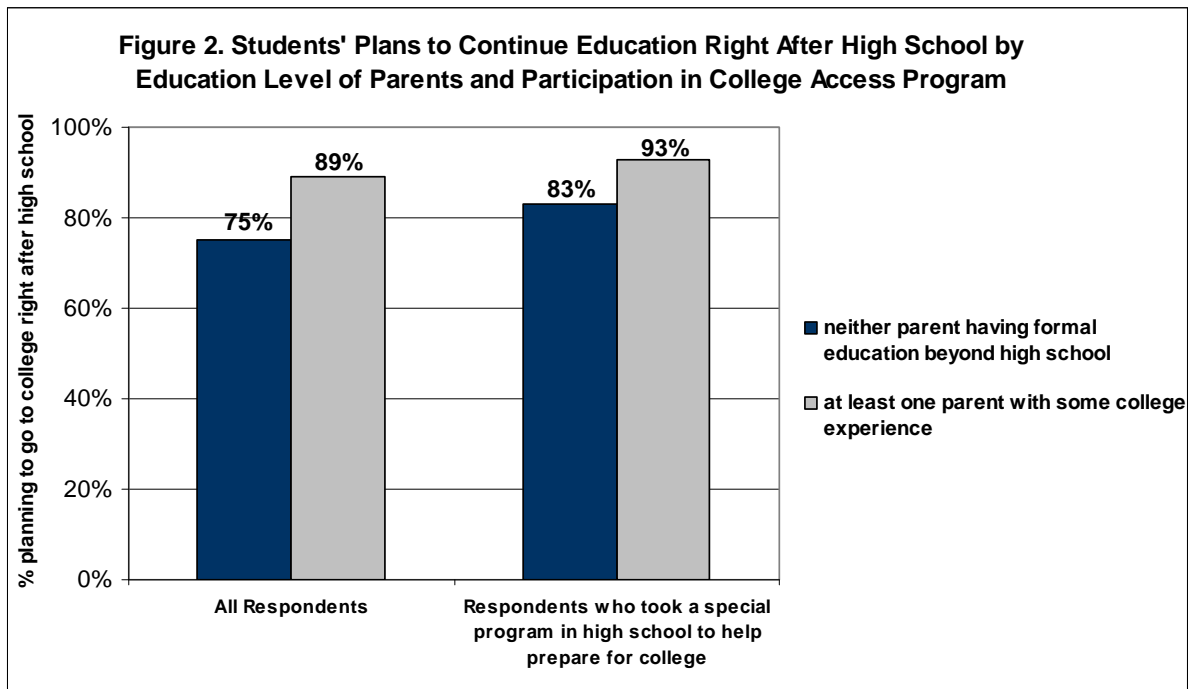
Table 1. Fall 2007-08 12th Graders Intentions to Go to College

Question: "Do you plan to continue your education right after high school or at some time in the future?"							
	All respondents (n=1141)	Males (n=516)	Females (n=616)	1st gen. college students (n=466)	Region 7 (n=656)	Region 10 (n=283)	Region 11 (n=202)
Yes, right after high school	80.5%	74.2%	85.9%	75.1%	81.4%	77.0%	82.2%
Yes, after staying out of school for one year	6.9%	7.6%	6.3%	8.2%	7.2%	7.1%	5.9%
Yes, after staying out of school for over a year	1.1%	1.9%	0.3%	1.1%	1.4%	1.1%	0.0%
Yes, but I don't know when	9.3%	12.4%	6.5%	11.6%	8.5%	12.0%	7.9%
No, I don't plan to continue my education after high school	2.3%	3.9%	1.0%	4.1%	1.5%	2.8%	4.0%

Comparing the 1992 and 2008 samples, it is clear that more high school seniors intend to go to college right after high school now than in the past. As Figure 1 indicates, the percentage of 2008 seniors planning to continue their education right after high school is 16 percentage points higher in 2008 than in 1992.



Comparisons were drawn between students who reported neither parent having any education beyond high school and students with one or more parents attending at least some college.



When examining students' plans right after high school, there is a statistically significant difference ($\chi^2 = 30.4, p < 0.05$) between students who would be first generation college students and students with parental college experience. Students whose parents have college experience are significantly more likely to report plans to continue their

education right after high school (89 percent plan to) as compared to students reporting neither parent attended college (75 percent of these students plan to continue their education right after high school).

Examining those students who report they participated in a high school program to help them prepare for college, there is still evidence of a statistically significant difference ($\text{Chi}^2 = 5.4, p < 0.05$) between students who would be first generation college students and students whose parents have some college experience. However, the gap in aspiration for a college education immediately after high school narrows. Among students participating in a program to help prepare for college, 83 percent of would-be first generation college students and 93 percent of students whose parents have some college report that they plan to continue their education right after high school. In addition to this narrowing of the gap between students with and without parental college experience, the overall percentage of students who plan to attend college right after high school is greater for students who participated in a high school program to prepare them for college. Eighty-seven percent of the students who reported being in a special program to prepare them for college plan to go on to higher education immediately after high school, as compared to 79 percent of the students who did not participate in a special program to prepare them for college.

Students' Predictions of Future Educational Attainment

In addition to the question about their plans to continue their education right after high school, the 2008 survey asked students to predict their terminal education level. Item 16 on the 2008 instrument (see Appendix A) asked, "As things stand now, how far in school do you think you will get?" Choices ranged from not graduating from high school through an advanced college degree. Table 2 provides the percentages based on the entire sample.

Table 2. High School Seniors' Predictions of Their Future Educational Attainment

"As things stand now, how far in school do you think you will get?"	% of respondents
Less than high school graduation	0.2%
High school graduation or GED only	5.4%
Attend or complete a 2-year course in a community college	11.1%
Attend college, but not complete a 4-year degree	1.5%
Graduate from college	46.7%
Obtain a Master's degree or equivalent	18.9%
Obtain a Ph.D., M.D., or other advanced degree	11.2%
Don't know	5.2%

Given the importance of this aspirational question, we examined the extent to which factors typically known to predict post-secondary educational attainment apply to Appalachian Ohio students as well. Using a regression procedure, we examined the probability of a student indicating that she/he will graduate from college, conditional upon a combination of each student's demographic characteristics and responses to select survey questions. These factors are gender, high school curriculum, whether they visited a college, the number of their friends who had dropped out of high school, their parents' college education savings profile, the number of the student's siblings who are attending or had attended college, and if a student indicated that she/he felt educationally prepared for college.

The preliminary findings from this fall survey cohort offer a fairly predictable portrait of the type of high school senior that expects to graduate from college. Specifically, female students are more likely than their male peers to believe they will graduate from college. Likewise, students whose siblings are attending or have attended college are more likely to say they expect to graduate from college than are students without this sibling history. Students who feel educationally prepared for college are also more likely than students who don't feel prepared to say they expect to graduate from college. Similarly, students following a college preparatory curriculum are more likely to say they expect to graduate from college while students enrolled in vocational education programs are less likely to articulate this expectation. Finally, students whose parents'

saved for more than 5 years are also more likely to say they expect to graduate from college than are students whose parents either did not save or saved for less than 5 years (see Appendix D for full results).

Location of College

Twelfth graders expressing an intention to attend college either immediately after high school or at some time in the future were asked where they planned to attend. Of the 2008 sample, 47 percent indicated that they planned to attend an Ohio college within fifty miles of home. Another 25 percent indicated plans to attend a college in Ohio, but farther away than 50 miles. Eleven percent expressed plans to attend college in a neighboring state, and another 3 percent planned to attend in some other state. Approximately 14 percent were unsure at the time of the fall survey.

Table 3 compares the fall 2007-08 responses to the 1992 responses to the location of college question.³ As evident from this table, there is a substantial difference between the two cohorts in terms of both (a) the proportion of students who plan to attend a nearby college and (b) those that are unsure where they will attend college. In particular, while roughly a quarter of the respondents to the 1992 survey were unsure about the location of the college they would attend, this rate drops to approximately 14 percent in the 2008 sample. The percentage of those planning to attend a nearby college is approximately 17 points higher in 2008 than in 1992.

³ The 1992 *Appalachian Access and Success* report (page 148) included frequencies and percentages for the college location question, including those not attending. For Table 4, the 1992 percentages were recalculated to exclude those not planning to attend college.

**Table 3. High School Seniors' Planned Location of College
1992 and 2008**

Planned location of college	2008 High School Sample*	1992 High School Sample
Ohio college within 50 miles of home	47.1%	30.3%
Within Ohio but more than 50 miles from home	24.8%	33.6%
Out of state	14.3%	12.4%
Unsure	13.6%	23.2%

Note: Totals do not equal 100% for either sample because the "foreign country" category is not listed. Less than half a percent of both samples indicated plans to study abroad.

*Subsample of 2008 seniors from high response rate high schools report roughly the same plans. All percentages are within two percentage points of the full sample.

One plausible explanation for the marked difference in college location plans is the current effort among area high schools, colleges, and college access programs to disseminate crucial information about college programs. This suggestion is borne out by students' responses to questions asking them about the recruitment efforts of higher education institutions in the region and information dissemination efforts at their own high schools. This increased information could help explain why fewer students are unsure about where they will go to college and why more are planning to go to college closer to home. In 1992, only 40 percent of high school seniors thought that area colleges did a good job in encouraging students to pursue higher education; in 2008, almost 70 percent thought area colleges do a good job in encouraging students to pursue higher education.⁴ Similarly, in 2008, approximately 79 percent of high school seniors in the sample reported that their school did an excellent or good job in encouraging students to pursue higher education, as opposed to only 43 percent in 1992. When asked, "Does your school provide you enough information regarding career choices and required training?", 68 percent of the 2008 sample responded "yes," while only 60 percent of the 1992 sample answered "yes" to the same question. Of course, it is also likely that the noted difference in college attendance plans is due to advances made in information technology (IT) since 1992. The Internet makes it easy to obtain

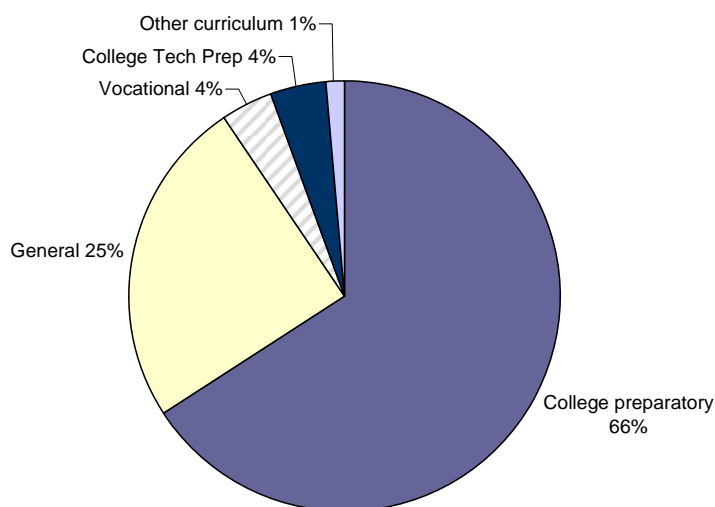
⁴ The 2008 survey instrument included *excellent* as a category for this question, along with *good*, *fair*, *poor*, and *don't know*. The 70 percent reported here are those that reported either *excellent* or *good*.

information on college admission criteria, financial aid availability, application procedures, and many other details that can help students select a school to meet their needs.

Preparation for College

Decisions that affect students' college access and success are made long before their senior year. The choices students make during the first years of high school can be critical to their educational future. For example, a rigorous high school curriculum is one of the strongest predictors of success in college.⁵ Of the seniors surveyed, two thirds report taking a college preparatory curriculum and another four percent report taking a college tech prep curriculum. Of the remaining 30 percent, most reported taking a general curriculum in high school.⁶

Figure 3. Fall 2007-08 High School Curriculum of 12th Graders



The 2008 sample differs from the 1992 sample in the percentage of students reporting taking a college preparatory curriculum. The 1992 figure was 57 percent, approximately nine percentage points lower than the 2008 figure. However, the same percentage of students in both cohorts report being enrolled in a general curriculum. One vocational

⁵ Lumina Foundation for Education. (2001). *What we know*. Indianapolis, IN: Lumina Foundation for Education.

⁶ It should be noted that only one vocational school was surveyed at the time of this preliminary report (another will be surveyed in the spring of 2008), and the percentage taking a vocational program is largely determined by how many vocational school students are in the survey.

school was also included in the 1992 study, and approximately 10 percent of the sample reported being in a vocational program in 1992.

In addition to the high school curriculum itself, students also have the option to participate in programs that provide rigorous courses to prepare them for college-level work, that give them actual college course experience, and that help them make the transition from high school to college. These options not only prepare students academically, but likely also instill a sense of confidence in their ability to be successful in higher education.

Table 4. High School Programs of 2008 12th Graders

Question: "Have you ever been in any of the following kinds of courses or programs in high school?"	
Special program to help students plan or prepare for college	21.5%
Post-Secondary Enrollment Option (PSEO)	6.7%

As Table 4 indicates, approximately seven percent report participating in the Post-Secondary Enrollment Option (PSEO) program while in high school. This percentage is roughly equal to the overall percentage of Appalachian Ohio students enrolled in PSEO in 2006.⁷ Slightly fewer than one quarter of the students self-report participation in a program to help prepare for college.

Table 5. College Readiness Behaviors of 2008 12th Graders by Parental Education Attainment

	Parents attended college (n=528)	First-generation college attendees (n=469)
Taking college entrance exam	87.5%	77.8%
Taking Advanced Placement course	36.3%	18.1%
College preparatory curriculum	75.0%	59.5%

It should be noted that the percentage of 12th graders reporting college readiness behaviors is lower for students who would be the first in their family to attend college compared to students with at least one parent who attended college. Approximately 78 percent of first-generation college students took or plan to take the ACT or SAT compared to 87.5 percent of students with a parent that attended college. The

⁷ Ohio Department of Education (2007). *2006-07 Local report card* [Data file]. Columbus, OH: Ohio Department of Education.

percentage reporting a college preparatory curriculum is also higher for students with at least one college educated parent.

Influences on 12th Graders Plans for Higher Education

People with the Most Influence on Students' Decision to Attend or Not Attend College

Respondents were asked to rank the three people who had the most influence on their decision to attend or not attend college. The options available to students were: *peers/friends, counselors, parents, college representative, brother/sister, employer, other relative, teacher, and other*. Although “self” was not listed as a choice, approximately 6 percent of the respondents specified “self” in the “other” category, making “self” the third ranked most influential person. Table 6 summarizes the top three responses by rank of first, second, and third most influential people. Over 70 percent of 12th graders selected their parents as the person with the most influence over their decision to attend or not attend college. Peers/friends also had a big influence on students’ decisions. High school counselors and teachers are ranked in the top three of the second and third most influential persons.

Table 6: Individuals with most influence on high school seniors' decision to attend or not attend college.

Question: "Rank the three people who had the most influence on your decision to attend or not attend college."					
Most influential person		Second most influential person		Third most influential person	
Parents	71.1%	Peer/friends	26.5%	Peer/friends	28.4%
Peer/friends	8.9%	Parents	16.0%	Teachers	17.9%
Self	6.3%	Counselor	14.2%	Counselor	14.9%

Response patterns were also analyzed in order to isolate the most often occurring, or modal “set” of influential people. Isolating the respondents that chose their parents as most influential (n=747), the most common response set was *parents, peers/friends, school personnel*.⁸ This set was chosen by 127 (17 percent) of the students who listed

⁸ Teachers and school counselors were combined for this portion of the analysis.

their parents as most influential in their decision to attend college. The second most often-occurring set was *parents, other family member, peers/friends*, chosen by 102 (14 percent) of the students who listed parents as most influential in their college decision.

The 2008 12th graders' ranking of most influential people on their decision to attend college was similar to the 1992 sample. Parents, peers, teachers, and other relatives were listed as the top four most influential people, with approximately the same percentage of students listing parents as one of the top three most influential persons in both 1992 and 2008.

Most Important Factors in Selecting a College

Students were asked to rank the three most important factors that they consider when selecting a college. The response options available to students were: *financial aid available, location, college's reputation, programs offered, friends/relatives attending, size of college, and other*. High school seniors ranked the programs offered by the college, availability of financial aid, and school's location as the most important factors they consider when selecting a college. Over a third of high school seniors selected programs offered as the most important factor influencing their college selection decision.

Table 7. Most important factors considered by high school seniors when selecting a college

Question: "Rank the three most important factors you consider when selecting a college."					
Most important factor		Second most important factor		Third most important factor	
Programs offered	36.7%	Location	29.3%	Location	25.3%
Financial aid available	29.0%	Programs offered	21.3%	Financial aid available	18.8%
Location	18.9%	Financial aid available	21.1%	Size of college	17.2%

Response patterns were analyzed for this question in order to isolate the most often occurring, or modal "set" of important factors considered by 12th graders when selecting a college. Based on the 1,020 students with valid responses to this question set, the top five modal patterns were all some combination of *programs offered, financial aid available, and location*. This set was chosen by 34 percent of the respondents.

Barriers to Higher Education

One of the most important objectives of the 2008 high school survey is to help identify the barriers to higher education for today's Appalachian Ohio high school students and to see if the barriers are different in any way to those identified in the 1992 *Appalachian Access and Success* study. If the barriers are similar across the two studies, then current programming and policy designed to increase the college going rate can be continued and accelerated. If the barriers have changed, however, then programming and policy must adapt to better address current realities. To that end, several questions on the 2008 high school survey asked students about difficulties they encounter as they plan for college.

Twelfth graders were asked to rank the three major problems or difficulties they have encountered regarding college. Students had the following choices: *lack of information regarding college programs, want an immediate income, won't fit in, no friends planning to go to college, not smart enough, live too far from college, poor grades in school, lack of parent support, don't like school, lack of financial aid information, lack of finances, and other.*

Overall, high school seniors ranked lack of finances as their biggest problem or difficulty regarding college. Lack of information in terms of college programs and financial aid was also found to be high on the students' list of major problems or difficulties, followed by the desire for an immediate income (25 percent of the respondents).

Table 8. Major problems or difficulties faced by 12th graders regarding college

Question: "Rank the three major problems or difficulties you have encountered regarding college."	
Most problematic	
Lack of finances	40.4%
Lack of information regarding college educational programs	11.9%
Lack of financial aid information	8.7%
Second most problematic	
Lack of financial aid information	18.2%
Lack of finances	14.1%
Want an immediate income	12.4%
Third most problematic	
Lack of information regarding college educational programs	13.5%
Want an immediate income	13.5%
Lack of finances	13.4%

Analysis of the modal response patterns to this question illustrates the strong negative influence of finances and lack of information regarding both programs and financial aid.

Where lack of finances was listed as the first choice (n=378), six of the top ten modal patterns mentioned lack of financial aid information or information regarding college programs as either a secondary or tertiary problem or difficulty. Also, where lack of finances was the first choice, one third of the respondents listed want an immediate income as either their second or third choice.

Comparing the 2008 responses to those of the 1992 survey of 12th graders, the top problems or difficulties regarding college remain essentially the same, although the distribution of the specific responses appears to have shifted. This is evident in Table 9 which compares the 1992 and 2008 responses related to the leading problems or difficulties students report regarding college.

Table 9. High School Seniors' Self-Reported Major Problems Encountered Regarding College, 1992 and 2008

Major problems or difficulties	2008 High School Sample*	1992 High School Sample
Lack of Finances	64.8%	58.1%
Lack of Financial Aid Information	39.4%	38.1%
Lack of Information Regarding College Educational Programs	38.3%	33.4%
Want an Immediate Income	34.5%	31.9%
Poor Grades	21.4%	26.9%
Not Intelligent Enough	22.9%	25.8%

*Subsample of 2008 seniors from high response rate high schools was similar in responses to this question. All percentages are within 2 percentage points of the full sample.

On both the 1992 and the 2008 surveys, 12th graders were asked, “Can you afford college?” In 1992, approximately 33 percent of the respondents said they could *not* afford college, while in 2008, 37 percent indicated that they could *not* afford college. Insofar as these responses accurately reflect the financial status of Appalachian Ohio seniors, it is alarming to note growth in the proportion indicating that finances come between them and a college education.

Seniors' Self-Reported Preparedness for College

In both the 1992 and the 2008 surveys, 12th graders were asked if they felt educationally prepared for college. Whereas in 1992, 58 percent considered themselves to be educationally prepared for college; in 2008, 72 percent considered themselves similarly prepared. This increase may be no more than a reflection of an overall increase in the self confidence of today's seniors versus their peers almost two decades ago. However, it may also be an indication that today's students know more about what will be expected of them in college because of the presence of college access programs and the chance to enroll in college courses while in high school through options such as PSEO and tech prep programs.

Career Plans

Students were also asked, "What occupation/career do you plan to pursue?" and allowed an open-ended response option. Students' open-ended responses to this question were placed into 18 occupational categories and are summarized in Table 10.

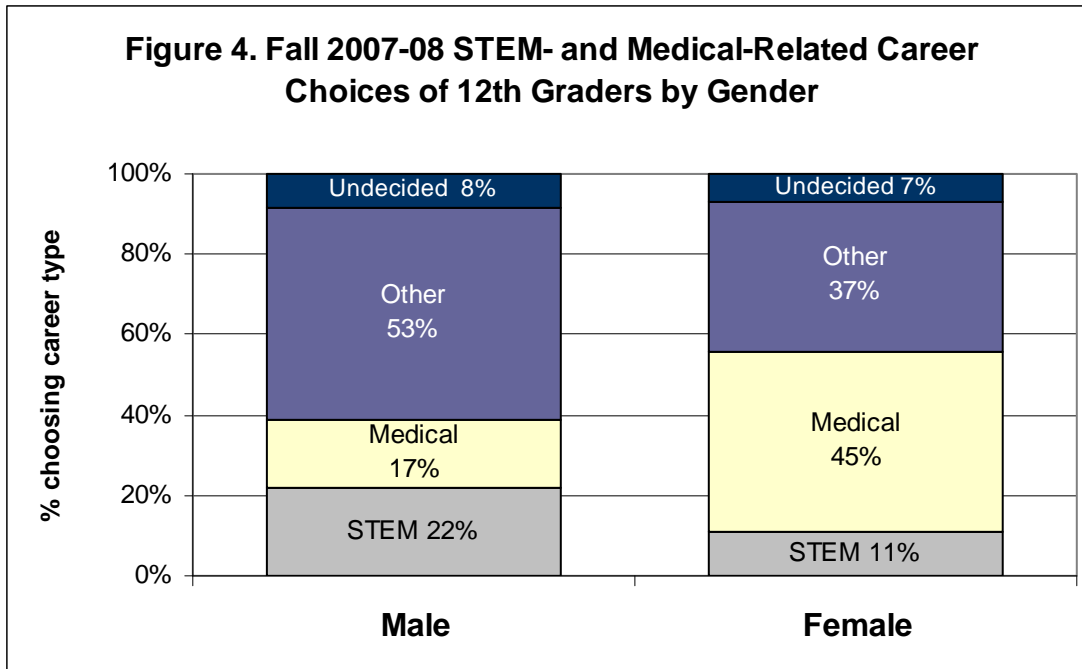
Table 10. High School Seniors' Planned Occupation/Career Choice

Occupation/career choice	All Respondents	Males	Females
nursing/ancillary medicine/allied health	27.9	15.0	38.7
education	9.4	6.2	11.9
business	9.2	11.2	7.6
undecided	8.1	8.8	7.3
other/misc	8.1	8.4	7.9
law enforcement/criminal justice/public safety	4.4	7.0	2.3
skilled hard trades- mechanic, carpentry, welding	4.4	9.8	0.0
computer science/information technology	4.1	6.8	2.0
sciences	3.9	5.0	3.0
engineering	3.8	7.6	0.7
psychology/sociology/social work	3.6	1.8	5.0
medicine-physician, medical research	3.5	1.8	5.0
communication	2.2	2.6	1.8
law- attorney/paralegal	2.1	1.4	2.6
military	2.0	3.8	0.5
veterinary medicine/vet tech	1.9	0.4	3.1
agriculture	1.0	1.8	0.3
architect	0.5	0.8	0.3

As Table 10 indicates, a large proportion of 2008 12th graders (28 percent of all respondents, including 15 and 39 percent of male and female respondents respectively) are planning to enter the nursing/allied health fields. Males are more likely to express a career interest in business, law enforcement, skilled hard trades (carpentry, welding) and the hard sciences (computer science, engineering).

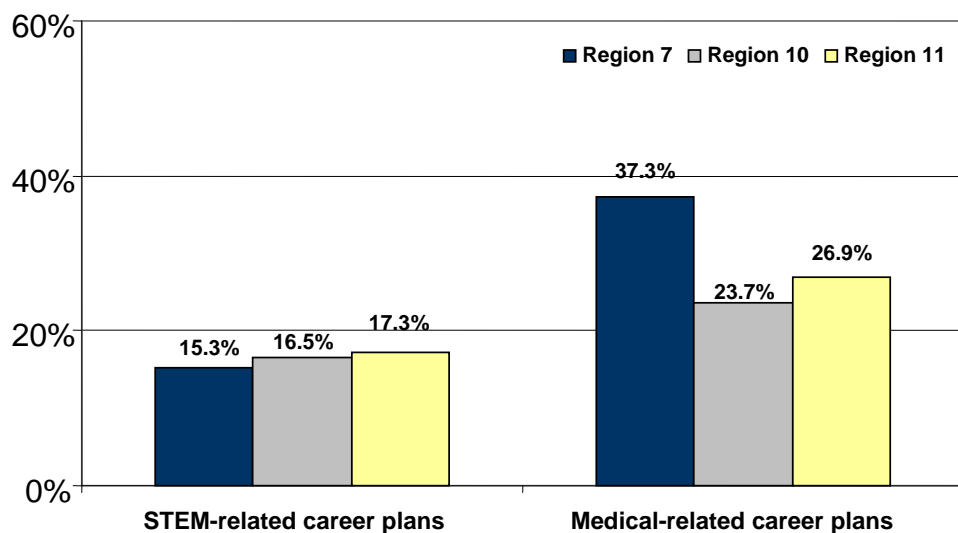
Given the recent national and state emphasis on Science, Technology, Engineering, and Math (STEM) occupations, students' career choices were further recategorized into Science, Technology, Engineering, and Math (STEM) occupations, as well as medical

occupations, including physician, nursing, allied health, medical research. As Figure 4 indicates, the percentage of males selecting a STEM-related career is twice that of females. Close to half of all female respondents are planning to pursue a medical-related career, most of them in nursing/allied health.



To better understand today’s high school seniors’ career choices and how those choices may impact the local workforce, student responses were disaggregated by the three economic development regions in Appalachian Ohio (see map in Appendix B). Figure 5 illustrates the percentages of seniors in each economic development region who are currently interested in pursuing STEM- or medical-related careers.

Figure 5. Percent of 2008 High School Seniors' Planning to Pursue STEM or Medical Career by Economic Development Region



Disaggregating the preceding distribution by the Ohio Department of Development's economic regions sheds light on some variance across regions (see Figure 5). Almost 38 percent of respondents from Economic Development Region 7 indicate medical-related career plans versus 24 and 27 percent from Regions 10 and 11, respectively. One possible explanation for the greater percentage of Region 7 seniors interested in pursuing a medical/nursing/allied health-related career is the presence of several large medical centers in the region. Region 7 is home to the Adena Regional Medical Center, Holzer Health Systems, and the Southern Ohio Medical Center. Note that Economic Development Region 7 had almost 600 respondents answering this question, whereas Region 10 had approximately 300 and Region 11 had approximately 200 responses.

It is important to note that the Ohio Department of Job and Family Services, Bureau of Labor Market Information Employment Projections Report predicts the highest rate of growth from 2004 to 2014 occurring in the *Education and Health Services* sector. This first-ranked growth rate is predicted for all three economic development regions in Appalachian Ohio.⁹

⁹ Ohio Department of Job and Family Services (2006). *Ohio Job Outlook to 2014*. Columbus, OH: Ohio Department of Job and Family Services.

Conclusion and Next Steps

This preliminary look at the fall 2007-08 high school senior survey data reveals some important information about progress over time in Appalachian Ohio. Although many barriers still exist, a higher percentage of students plan to go to college and feel they are getting the information they need to achieve this goal. This rich data set will continue to be analyzed in order to examine relationships among various factors and to compare the Appalachian Ohio findings to similar state and national data.

At the time this preliminary report was being prepared, the spring 2008 high school senior surveys were in the field. These surveys will be completed in the same 25 high schools by June 2008, and the data will be linked to the fall surveys at the individual respondent level. One assumption in this two-phase design is that most high school seniors who plan to continue their education will have taken at least some action toward enrolling in a postsecondary program. They may also have more concrete information about how they will pay for college, and they may have encountered some barriers along the way. We will also be able to gauge how much a high school senior's plans may change from the beginning to the end of his or her final year in high school, when plans and hopes must start to be operationalized.

Appendix A- Fall High School Survey Instrument

ASSURANCE OF CONFIDENTIALITY

Participation in this survey is voluntary. You may skip questions you do not wish to answer; however, we hope that you will answer as many questions as you can. The information you provide will be kept strictly confidential, and will be protected to the fullest extent allowable under law. All data collected will be combined to produce statistical reports. No individual data that links your name, address, or telephone number will be reported.

Instructions: In pen or pencil, fill in the circle or box opposite all items that apply.

Correct marks: ● 1 9 Incorrect marks: ✗ 19

Basic Information

1. Your first name _____ Last name _____ MI _____ Your ID # _____

2. Name of your school _____

Today's Date

/ /
Month Day Year

3. What county do you live in?

- Athens Columbiana Holmes Lawrence Scioto
 Brown Gallia Jackson Meigs Vinton
 Carroll Highland Jefferson Perry Washington

4. Your date of birth

/ /
Month Day Year

5. Your gender

- Male Female

6. Are you Hispanic or Latino/Latina?

- Yes No

7. Please select one or more of the following choices to best describe your race.

- White Native Hawaiian or Other Pacific Islander
 Black/African American American Indian or Alaska Native
 Asian

Basic Family and Related Information

8. How many of your brothers/sisters are attending or have attended college? None One Two or more

9. How far in school did your parents go? Indicate your mother's and your father's highest level of education.

	Mother	Father
a. High School but did not graduate	<input type="radio"/>	<input type="radio"/>
b. Graduated from High School or equivalent (GED)	<input type="radio"/>	<input type="radio"/>
c. Attended a two-year school (such as a vocational/technical school, junior college, or a community college) but did not complete a degree	<input type="radio"/>	<input type="radio"/>
d. Graduated from a two-year school (such as a vocational/technical school, junior college, or a community college)	<input type="radio"/>	<input type="radio"/>
e. Attended a four-year college but did not complete a degree	<input type="radio"/>	<input type="radio"/>
f. Graduated from college	<input type="radio"/>	<input type="radio"/>
g. Completed a Master's degree or equivalent	<input type="radio"/>	<input type="radio"/>
h. Completed a Ph.D, MD, or other advanced professional degree	<input type="radio"/>	<input type="radio"/>
i. Don't know	<input type="radio"/>	<input type="radio"/>

10. In the first semester or term of this school year, how often have you discussed the following with either or both of your parents or guardians?

	Never	Once or twice	More than twice
Selecting courses or programs at school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
School activities or events of particular interest to you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Things you've studied in class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your grades	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transferring to another school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plans and preparation for ACT or SAT tests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Going to college	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Community, national and world events	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Things that are troubling you	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

School Experiences

11. What is your high school grade point average (GPA)? _____

12. What high school curriculum have you followed?

College preparatory General Vocational College Tech Prep Other (specify) _____

13. Have you ever been in any of the following kinds of courses or programs in high school?

	Yes	No	Don't know
Advanced Placement (AP)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
International Baccalaureate (IB)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Courses or a program you take at a separate area or regional vocational school part-time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Remedial English	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Remedial math	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bilingual or bicultural education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
English as a Second Language (ESL)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dropout prevention, Alternative or Stay-in-School Program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Special Education Program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Course via distance learning	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Career Academy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Special program to help students plan or prepare for college	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Post-Secondary Enrollment Option (PSEO)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An internship program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14. Since starting ninth grade, did you win any of the following awards or were you recognized at school for doing well or participating in certain activities?

	Yes	No	Don't know
Won an academic honor	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Received special recognition for good attendance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Received special recognition for good grades or honor roll	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Received a community service award	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Participated in a science, math or technology fair	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Completed vocational/technical skills competition (e.g., DECA, VICA, FFA, FHA)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. Have you taken or are you planning to take any of the following tests in the next two years?
- | | Yes | No | Don't know |
|---|-----------------------|-----------------------|-----------------------|
| Pre-SAT test (PSAT)----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Practice American College Test (PLAN)----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Preliminary American College Testing Program Assessment (PACT)----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| College Board Scholastic Assessment Test (SAT)----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| American College Testing Program Assessment (ACT)----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Advanced Placement (AP) test----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Armed Services Vocational Aptitude Battery (ASVAB)----- | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

16. As things stand now, how far in school do you think you will get? (mark one response)

- Less than high school graduation
- High school graduation or GED only
- Attend or complete a 2-year school course in a community or vocational school
- Attend college, but not complete a 4-year degree
- Graduate from college
- Obtain a Master's degree or equivalent
- Obtain a Ph.D., M.D., or other advanced degree
- Don't know

17. Have you visited a college or attended a college within the last two years? Yes No Don't know

18. What occupation/career do you plan to pursue? _____

19. Does this occupation/career require some training beyond high school? Yes No Don't know

20. When did you decide your occupation/career? (mark one response)

- Grades 1-6
- Grades 7-8
- Grades 9-10
- Grades 11-12
- Still undecided

21. How long will it take to reach your occupation/career goal? (mark one response)

- Unsure
- Less than 1 year
- 2-3 years
- 3-5 years
- More than 5 years

22. Altogether, how many of your close friends have dropped out of school before graduating? (Do not include those who have transferred to another school.) (Mark only one)

- None of them
- Some of them
- Most of them
- All of them

Plans for the Future

23. Have your parents encouraged you to pursue higher education? Yes No Don't know

24. What do the following people think is the most important thing for you to do right after high school?

Pick only one answer per person	Your mother	Your father	Your friends	A close relative
Go to college-----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Get a full time job-----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enter a trade school or apprenticeship-----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enter military service-----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Get married-----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They think I should do what I want-----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They don't care-----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't know-----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

24. (continued). What do the following people think is the most important thing for you to do right after high school? Pick only one answer per person

	School counselor	Favorite teacher	Coach	Advisor
Go to college.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Get a full time job.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enter a trade school or apprenticeship.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enter military service.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Get married.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They think I should do what I want.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
They don't care.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I don't know.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

25. Do you plan to continue your education right after high school or at some time in the future? (Mark only one)

- Yes, right after high school
- Yes, after staying out of school for one year
- Yes, after staying out of school for over a year
- Yes, but I don't know when
- No, I don't plan to continue my education after high school

26. Are you educationally prepared for college? Yes No Don't know

27. Can you afford to go to college? Yes No Don't know

28. Have your parents saved money for your college education? (Mark only one)

- Don't know
- Unable to save
- Saved for 1-2 years
- Saved for 3-5 years
- Saved for more than 5 years

29. Where have you gone for information about the entrance requirements of various colleges (Mark all that apply)

- Guidance counselor
- Teacher
- Coach
- Parent
- Friend
- Brother or sister
- Other relative
- Advisor
- College representatives
- College search guides, publications, or websites
- None of the above

30. Is either of your two closest friends planning to attend college? Yes No Don't know

INSTRUCTIONS: If you answered "No" to Question 25, please skip now to question 37!

31. Which of the following do you plan to attend? (Mark only one)

- Four-year college or university Two-year community college Vocational, technical or trade school Unsure

32. Where will you attend this college? (Mark only one)

- Ohio college within 50 miles of home
- In a neighboring state (WV, PA, KY, MI, IN)
- Foreign country
- Within Ohio but more than 50 miles of home
- In some other state
- Unsure

INSTRUCTIONS: If you answered "No" to Question 25, now skip to question 37!

33. If you plan to attend college, indicate the percentage of your college expenses to be covered by each category below. (total must equal 100%)

Own income or savings	_____ %	Scholarship	_____ %
Parents	_____ %	Employer assisted	_____ %
Loans	_____ %	Military service (the GI bill)	_____ %
Grant	_____ %	Other(specify)	_____ %

34. Would you like to participate in athletics (not intramural) at the collegiate level?

Yes No Don't Know

35. Do you hope to receive an athletic scholarship to pay for all or part of your college expense?

Yes No Don't Know

36. Do you hope to receive a non-athletic scholarship (for example, an academic or club-related) to pay for all or part of your college expense?

Yes No Don't Know

INSTRUCTION: Skip now to question 38

37. Which of the following are reasons why you have decided NOT TO CONTINUE YOUR EDUCATION past high school? (Mark all that apply)

- I do not like school
- My grades are not high enough
- I will not need more education for the career I want
- I cannot afford to go on to school
- I'd rather work and make money than go to school
- I plan to be a full-time homemaker
- I do not feel that going to school is important
- I need to help support my family

Information and Influences

38. What kind of job do area colleges do in encouraging students to go to college?

Excellent Good Fair Poor Don't Know

39. What kind of job does your school do in encouraging students to go to college?

Excellent Good Fair Poor Don't Know

40. Does your school provide you enough information about career choices and necessary college courses?

Yes No Don't know

41. Does your school provide you enough information about career choices and necessary training?

Yes No Don't know

42. Do college representatives visit your school and encourage students to attend college?

Yes No Don't know

Please continue on back 

43 Rank the three people who had the most influence on your decision to attend or not attend college.
 (Mark one bubble in each column).

	Most influential person	Second most influential person	Third most influential person
Peers/friends -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Counselors -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parents -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
College representative -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Brother/sister -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employer -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other relative -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teachers -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (specify) _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Other (specify)	Other (specify)	Other (specify)

44 Rank the three major problems or difficulties you have encountered regarding college.
 (Mark one bubble in each column).

	Most problematic or difficult	Second most	Third most problematic or difficult
Lack of information regarding college educational programs -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Want an immediate income -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Won't "fit in" -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
No friends planning to go to college -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not smart enough -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Live too far from college -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Poor grades in school -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of parent support -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Don't like school -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of financial aid information -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of finances -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (specify) _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Other (specify)	Other (specify)	Other (specify)

45 Rank the three most important factors you consider when selecting a college.
 (Mark one bubble in each column).

	Most important	Second most important	Third most important
Financial aid available -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Location -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
College's reputation -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Programs offered -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Friends/relatives attending -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Size of college -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Not planning to attend -----	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (specify) _____	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	Other (specify)	Other (specify)	Other (specify)

Appendix C- Sampling Procedures, Survey Deployment, and Subsample Analysis

The Survey Process

Project staff at Ohio University's Voinovich School mailed a brief overview of the project and letters of invitation to the district superintendents, high school principals, and high school counselors in the sample districts. The invitation letter included a response card that could be mailed back to confirm or decline voluntary participation. Follow up calls were made to districts that did not return the response card within two weeks of mailing.

Once the sample districts agreed to participate, staff from the Ohio Appalachian Center for Higher Education, Ohio College Tech Prep, and Ohio University's Voinovich School contacted the high schools to establish the process for securing consent from students and parents, and for deploying the fall survey. Consent forms were distributed to schools that agreed to participate and returned via mail. Based on the requirements of Ohio University's Institutional Review Board, only students whose parent or guardian (or students themselves who were 18 years old) signed consent agreements were deemed eligible to participate in the survey. The rate of consent forms returned per number of 12th graders varied by school from a low of 25 percent to a high of 77 percent.

Once consent forms were on file at Ohio University, field staff from OACHE, Ohio College Tech Prep and Ohio University's Voinovich School scheduled dates with each high school to administer the survey. The original timeline for deployment of the fall surveys was October – December 2007. Because of inclement weather and other scheduling conflicts, the survey window had to be extended through February 2008.

Response Rate

Ohio University's Voinovich School received 1,145 completed surveys by March 19, 2008 for an overall response rate of 38 percent. The response rate varied by economic development region of Appalachian Ohio, with Region 7 showing the highest response rate (41 percent), as well as the largest number of responses (642 respondents).¹¹ See Appendix B for a map of the economic development regions in Appalachian Ohio.

¹¹ These regions are defined by the Ohio Department of Development. See <http://www.odod.state.oh.us/Regionals.htm> for details.

While the 2008 sample is comparable to the 1992 sample in the number of responses and number of high schools and counties surveyed, the overall response rate is somewhat lower than the 1992 response rate. During the 1992 *Appalachian Access and Success* study, high school surveys were administered to the class of 1992 in the fall and winter of their senior year. The total number of responses for the 1992 survey was 1,553, for a response rate of 69 percent. The 1992 survey covered 12 counties and 21 school districts. The 2008 survey covered 14 counties and 25 school districts (see Appendix B). The lower response rate for the 2008 survey is most likely due to two key differences between the current study and its 1992 predecessor.

First, the 2008 study required students and their parents to submit a written consent form in order to collect student names and follow up contact information. This additional information is required as part of the research design for the 2008 study, as these students will be surveyed again in the fall of 2008 to see if they followed through with their plans for higher education. Based on available information, there is no indication that a similar voluntary consent process was instituted for the 1992 study. As such, the consent process may well be responsible for the attenuated response rates encountered in the fall survey. Although the consent form process likely lowered the response rate, the ability to follow up with high school respondents during their first year of college or work adds great value to the overall study, allowing us to better understand trajectories, barriers, altered plans, and supports related to access and success in higher education.

Second, surveys targeting school districts, schools, students, and parents have grown exponentially over the last two decades. Anecdotal evidence suggests that because multiple surveys target the same population and often overlap in deployment, the typical school encounters more than one overture requesting their participation in a study. In short, survey fatigue and the lack of individual incentives motivating participation are very likely responsible for the lower response rates evinced in the fall survey.

Response Bias

Since the 2008 response rate was lower than the 1992 response rate, it is important to assess comparability and potential bias. In the case of the 2008 fall high school survey, bias may have been introduced, for example, by our requirement that parents sign a consent form prior to survey administration. Perhaps parents who are more involved in their 12th grader's schooling were more likely to get the consent form from the student, sign it, and give it to the student to

return to school. High school seniors who are already interested in college may be more likely to participate in a survey about their plans after high school than students who know they are unlikely to study beyond high school.

In order to check for both response bias and comparability with the 1992 sample, a subsample of 2008 respondents were chosen based on the response rates of individual high schools. There were seven high schools in the 2008 sample with response rates comparable to the 1992 rate. The overall response rate of these seven high schools was 66 percent, comparable to the 1992 response rate of 69 percent. Table A compares the 2008 subsample of students from districts with high response rates to the full 2008 sample on three characteristics.

Table A. Comparison of All 2008 Respondents to Subsample of Students from Districts with Similar Response Rate as 1992 Survey

Characteristic	All 2008 fall survey respondents (N=1,145)	Subsample of students from high schools with high response rate (N=523)
% with neither parent having formal education beyond high school	48%	43%
% taking college prep/college tech prep curriculum in high school*	70%	72%
% planning to continue their education right after high school	81%	82%

*Percentage includes students who reported college prep or college tech prep curriculum

As evident from Table A, this comparison of the full 2008 sample to the high response rate subsample indicates acceptable levels of similarity in respondents. A chi square test of independence indicated no statistically significant differences between the full sample and the subsample on the three characteristics enumerated above. In particular, the full sample does not appear to be more biased toward college readiness than the subsample, which has the same response rate as the 1992 survey. Based on these results, it is reasonable to assume that data from the two samples can be compared. Nonetheless, throughout this document where 2008 results are compared to 1992 results, the subsample statistics were also calculated and any discrepancies reported.

Appendix D- Coefficients and Standard Errors for Analysis of Factors Contributing to College Success

The analysis described on page 11 of this report focused on the following survey question, “As things stand now, how far in school do you think you will get?” A logistic regression procedure was used to predict the probability of a student indicating that she/he thinks they will at least graduate from college, conditional upon a combination of each student’s known attributes and responses to select survey questions. These factors are gender, the curriculum (college preparatory, or general curriculum, or vocational curriculum, or a technical preparatory curriculum), whether they visited a college, the number of their friends who had dropped out of high school, their parents’ college education savings profile, the number of the student’s siblings who are attending or had attended college, and if a student indicated that she/he felt educationally prepared for college. The results of this calculation are shown below.

Factor	Coefficient	Standard Error
Female	0.30**	0.12
Siblings Attending/Attended College	0.19**	0.09
Mother’s Educational Attainment	0.06	0.03
Father’s Educational Attainment	0.02	0.03
Feel Educationally Prepared for College	0.47**	0.14
Does Not Feel Educationally Prepared for College	-0.33	0.25
College Preparatory Curriculum	0.76**	0.35
General Curriculum	-0.17	0.35
Vocational Education Curriculum	-1.14**	0.45
Technical Preparatory Curriculum	0.07	0.41
Student Visited College	0.07	0.16
Number of Friends Who Dropped Out of High School	0.07	0.12
Parents Unable to Save	0.10	0.13
Parents Saved for 1 to 2 Years	0.62	0.33
Parents Saved for 3 to 5 Years	0.04	0.32
Parents Saved for More Than 5 Years	0.64**	0.25
Constant	-0.60	0.50

N = 861

Chi²(16) = 180.79**

Log-Likelihood = -281.86

** p < 0.05

Appendix E- Respondent Characteristics

Respondent Characteristics	
	Percent
<u>Gender</u>	
Male	45.6%
Female	54.4%
<u>Race</u>	
White	96.0%
Black/African American	1.8%
Asian	0.5%
Native Hawaiian or Other Pacific Islander	0.1%
American Indian or Alaska Native	1.6%
<u>Ethnicity</u>	
Hispanic or Latino/Latina	2.0%
<u>Parental Educational Attainment</u>	
Neither parent having formal education beyond high school	47%

School Attended by Surveyed High School Seniors

	(n=1145)
Buckeye Local High School	1.8%
Carrollton High School	10.3%
Collins Career Center	1.6%
Dawson-Bryant High School	4.0%
East Liverpool High School	2.1%
Eastern (Brown) High School	5.2%
Gallia Academy High School	2.1%
Ironton High School	4.6%
Jackson High School	10.5%
Marietta High School	4.9%
Meigs High School	3.3%
Miller High School	4.2%
Oak Hill Middle/High School	3.8%
River Valley High School	4.1%
South Webster Jr/Sr High School	3.0%
Symmes Valley High School	2.6%
Trimble High School	1.9%
Valley High School	3.8%
Vinton County High School	3.8%
Waterford High School	3.4%
Wellsville	2.2%
West Holmes High School	8.2%
Western Brown High School	7.1%
Whiteoak High School	1.6%

High School Seniors County of Residence

Question: "What county do you live in?"

(n=1135)

Athens	1.9%
Brown	12.1%
Carroll	10.0%
Columbiana	4.4%
Gallia	6.2%
Highland	1.8%
Holmes	7.9%
Jackson	14.2%
Jefferson	2.1%
Lawrence	12.8%
Meigs	3.5%
Perry	4.1%
Scioto	6.8%
Vinton	4.1%
Washington	8.3%