



## LOW-INCOME STUDENTS IN WEST VIRGINIA: Findings from the 2010 Senior High School Opinions Survey

*This Higher Education Policy Commission Research Brief compares the educational experiences and college plans of students in the West Virginia high school class of 2010 by levels of self-reported family income. This brief provides a snapshot of differences between low- and high-income students with respect to academic preparation, college aspirations, college influences, and college choice.*

### Key Findings

- About 25 percent of respondents reported coming from families that earned \$30,000 or less per year. About 27 percent reported annual family incomes of \$60,000 or more.
- Students whose families earned \$30,000 or less reported being less prepared for college as measured by high school GPA, ACT scores, curriculum taken, and math courses. For example, about 50 percent of the lowest income students reported taking a four-year college preparatory curriculum compared to 75 percent of the highest income students.
- College aspirations differed by income level for the Class of 2010. Overall, a higher proportion (88%) of students from families with incomes greater than \$60,000 planned to attend college than students from lower income families (about 79%).
- Brochures, college planning websites, CFWV.com, and the radio were reported as important or very important sources of information by lower income students more often than by higher income students. Parents and guardians were the most commonly cited influence across all income groups.
- The lowest income students cited affordability most often as an important factor in their choice of college. The highest income students listed academic offerings most often as an important factor in college choice.

### Overview

In spring 2010, a sample of West Virginia's seniors was asked to respond to a series of questions about their high school experiences and their plans after graduation. The questions were intended to provide teachers, principals, counselors, faculty, administrators, and policy makers across the state with the most current snapshot of the students' perspectives, experiences, and plans as they transitioned to life beyond high school.

The sample was designed to be representative of the seniors enrolled in public high schools in 2010. In addition, because of considerable variation in the size of high schools, the sample was drawn to be representative across both small and large schools. A random sample

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of high schools was drawn from the 117 high schools across the state. In addition, all GEAR UP and GEAR UP comparison schools were purposefully sampled, resulting in a final sample of 61 schools. In total, 47 of the 61 (about 77%) high schools had respondents. Responses are representative of the 18,472 high school seniors enrolled in 2010. A detailed description of the survey and methods used for this report can be found in the methodological appendix. All frequencies reported here represent weighted distributions.

### Academic Preparation

Students were asked a series of questions to get a sense of their academic preparation for college-level coursework. Overall, the lowest income students (those who reported family incomes of \$30,000 or less) were more likely to report lower high school GPAs and ACT scores than higher income peers (See Table 1). In addition, lower income students were less likely to report taking a four-year college preparatory curriculum and also reported taking fewer high level courses. For example, whereas nearly 22 percent of the highest income students reported taking calculus in high school, just under 6 percent of the lowest income students did the same.

**Table 1:** Academic Preparation

		\$30,000 or less	\$30,001-\$60,000	> \$60,000
		Column %	Column %	Column %
Cumulative High School GPA	Not reported	16.2	15.7	13.3
	Less than 2.0	9.1	8.2	6.7
	2.0 to 2.99	21.7	16.4	12.7
	3.0 or Higher	53.0	59.6	67.3
High School Curriculum Path	Professional (prep 4-year college)	50.3	64.0	75.8
	Skilled (prep 2-year college)	27.8	23.7	12.6
	Entry (prep work-force)	7.9	5.3	5.9
	Unsure	14.0	7.0	5.7
ACT Scores	Not reported	51.2	38.9	26.7
	Bottom Quartile, <19	15.5	12.8	10.8
	Third Quartile, 19-21	15.8	14.8	16.4
	Second Quartile, 22-23	6.5	13.5	14.0
	Top Quartile, >=24	11.0	20.0	31.9
Highest Math Level Completed Successfully	Less than Algebra 1	1.5	0.8	0.6
	Algebra 1	3.0	1.2	1.1
	Geometry	12.5	5.8	5.1
	Algebra 2	41.8	38.2	27.6
	Trigonometry	22.9	27.0	25.3
	Pre-calculus	12.5	15.5	18.5
	Calculus or above	5.8	11.6	21.8

\*Differences statistically significant at the 95% confidence level.

## College Aspirations

The level of self-reported family income was significantly related to students' aspirations for college as well as what steps they had taken to attend. Lower income students tended to report thinking about college attendance later in their education than higher income students (See Table 2). About 54 percent of higher income students reported first considering college attendance in elementary school compared to nearly 33 percent of lowest income students.

Overall, a higher proportion (88%) of students from families with incomes greater than \$60,000 planned to attend college than students from lower income families (about 79%). Higher income students were more likely to report that they had applied for college already and had also visited a college campus during their senior year.

**Table 2:** College Aspirations

		\$30,000 or less	\$30,001-\$60,000	> \$60,000
		Column %	Column %	Column %
First considered attending college	Elementary school	32.5	43.3	54.1
	Middle school	23.6	25.8	21.8
	Freshman year of HS	11.7	9.4	6.7
	Sophomore year of HS	4.0	3.4	2.3
	Junior year of HS	8.7	6.4	3.6
	Senior year of HS	8.2	4.9	4.3
	Never considered going	11.3	6.8	7.3
I have decided to attend college		78.9	87.0	88.0
I have decided to attend college next fall		67.9	79.4	83.7
I have already applied to college		64.4	74.8	80.8
# of times visited college campus past 12 months	None	31.5	24.3	18.7
	One	23.7	22.8	21.0
	Two	21.0	22.1	19.4
	Three	12.3	14.9	14.0
	Four	4.5	5.4	8.7
	Five or more	7.0	10.4	18.2
Highest academic degree student hopes to obtain	No academic degree	3.6	2.3	1.5
	High School diploma/GED	11.9	7.1	5.8
	Vocational or undergraduate certificate	5.8	6.1	5.2
	Associate's Degree	14.0	9.2	6.6
	Bachelor's Degree	31.5	34.0	22.1
	Master's Degree	21.7	28.5	35.4
	Doctoral degree	11.5	12.8	23.4

\*Differences statistically significant at the 95% confidence level.

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**College Influences**

Students were asked a series of questions regarding what people influenced their college aspirations, what their sources of information about college were, and how informed they felt about certain financing options (see Table 3). These are all important factors that can influence whether or not a student decides to attend college.

Parents or guardians were cited most frequently across all income levels as an important or very important influence on college aspirations. Interestingly, lower income students were more likely than higher income students to report that teachers, guidance counselors and principals were an important or very important influence on aspirations.

Institutional websites were cited most frequently across all income groups as important or very important sources of information about college. Brochures, college planning websites, CFWV.com, and the radio were reported as important or very important sources of information by the lowest income students more often than by higher income students.

Students reported feeling most informed about the PROMISE Scholarship as a source of college financing. Lower income students reported feeling more informed about need-based grants and loans than their higher income peers. For example, about 59 percent of the lowest income students said they felt informed or very informed about the Pell Grant compared to about 46 percent of the highest income students.

**Table 3:** College Influences

		\$30,000 or less	\$30,001-\$60,000	> \$60,000
		Column %	Column %	Column %
<b>Influences on College Aspirations</b>	Parent/Guardian	76.6	86.0	91.0
	Friend	60.8	64.6	63.3
	Grandparent	57.3	58.2	56.9
	Teacher	63.5	63.6	56.2
	Other family member	51.7	49.4	51.2
	Sibling	40.8	42.4	46.0
	Guidance counselor	51.6	47.4	44.0
	College admissions counselor	39.1	40.3	37.1
	Coach	24.9	28.8	35.0
	Principal	35.6	32.7	31.0
	Religious leader	28.1	27.3	27.1
	Community outreach counselor	17.2	14.8	16.3
<b>Sources of Information about College</b>	College websites	72.8	77.4	79.0
	Direct mail	59.8	64.0	62.6
	Brochures	60.1	57.7	57.1
	E-mail	53.2	53.9	56.1
	College fairs	52.6	49.3	47.5
	College planning websites	47.2	44.4	43.2
	Television	36.1	32.7	31.5
	Signs	33.7	31.1	30.5
	Magazines	31.6	29.1	29.9
	CFWV.com	33.6	30.7	28.8
	Newspapers	26.9	26.0	24.8
	Radio	25.8	22.1	23.3

	\$30,000 or less	\$30,001-\$60,000	> \$60,000
	Column %	Column %	Column %
<b>Informed about Financing Options</b>			
PROMISE Scholarship	67.6	77.0	78.8
Federal Loans	61.0	62.4	60.1
Work study	54.1	53.3	51.7
Pell Grants	58.7	56.0	46.3
West Virginia Higher Education Grant Program	49.5	51.7	46.3
College Savings Plans (529 Plans)	35.0	32.5	36.6
West Virginia Engineering, Science and Technology Scholarship	34.5	32.1	34.1
Tax Credits (e.g., Hope, American Opportunity)	30.9	27.2	28.5
Underwood-Smith Teacher Scholarship	27.9	26.0	25.2
West Virginia Higher Education Adult Part-Time Student Grant	29.5	27.4	24.6

\*Differences statistically significant at the 95% confidence level.

### College Choice & Finance

Finally, students were asked a series of questions regarding how they planned to finance college and what factors influence their particular choice of institution if they did plan to go to college.

With respect to financing college, lower income students were less likely to have reported filling out a FAFSA (necessary for receiving all forms of state and federal aid). At the same time, lower income students were more likely to report that they would finance college through state and federal need-based grants as well as federal loans. Affordability was cited most often by lower income students as important or very important to their choice of college. Interestingly, however, a higher proportion of students from families that earned more than \$60,000 per year reported affordability as a factor affecting college choice. About 72 percent of lowest income students were concerned about affordability compared to just over 78 percent of higher income students. Nonetheless, higher income students cited academic offerings most frequently as an important or very important factor affecting their choice of college.

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**Table 4:** College Choice

	\$30,000 or less	\$30,001-\$60,000	> \$60,000
	Column %	Column %	Column %
<b>Submitted a FAFSA</b>	77.6	81.2	84.9
<b>Plans to attend Full-time</b>	80.1	88.7	92.7
<b>Plan to attend Part-time</b>	19.9	11.3	7.3
<b>Sources of Financing College</b>			
Parents/relatives	58.5	78.0	86.6
Personal savings	52.9	62.7	62.0
Scholarship from the college	47.1	52.7	61.4
PROMISE Scholarship	25.0	34.9	44.1
Other loans	47.3	42.3	36.0
Federal loans	50.0	48.8	35.2
Scholarship from private source	25.9	33.2	34.9
Work-study	40.3	34.5	26.3
State need-based aid	46.8	37.4	17.9
Pell Grant	57.9	45.4	17.8
Military programs	12.6	8.8	8.6
<b>Institution Type</b>			
In-state, Baccalaureate-granting	34.6	45.1	52.0
Missing or Did Not Reply	37.7	27.7	22.4
Out-of-state	7.8	9.2	9.8
In-state, Community & Technical College	15.3	12.3	8.4
In-state, Independent	4.6	5.6	7.2
On-line	0.0	0.1	0.1
<b>Factors influencing college choice</b>			
Academic Offerings	68.8	79.5	82.6
Affordability	72.0	80.7	78.4
Academic Reputation of Institution	51.9	63.0	69.7
Scholarship Offer	53.2	59.4	65.5
Marketing Material from Institution	56.6	60.0	61.1
Attractive Social Life	44.8	55.6	60.8
PROMISE Scholarship Accepted at the Institution	40.3	47.7	56.2
Size of Student Body	46.0	50.4	53.1
Close to Home	49.2	53.0	50.7
Friends Attending Same Institution	37.3	43.9	47.6
Attractive Athletics Program	31.3	36.5	46.7
Part-time Employment Available at Institution	53.7	53.7	46.5
Parent Preferences	31.3	39.7	46.3
Honors Programs	34.3	39.5	45.9
Plan to Live and Work in Same State Post-Graduation	44.1	47.1	44.1
Easy to Gain Admission	45.1	44.5	40.4
Near Enough to Live at Home	45.8	45.0	38.6
National Rankings	22.5	25.7	35.0
Attractive Religious Affiliation or Program	26.6	29.6	31.6
Institution Recommended by Teacher or Counselor	27.9	28.5	27.0
Legacy	15.3	16.6	19.8

\*Differences statistically significant at the 95% confidence level.

One reason lower income students might not cite affordability as a concern as frequently as their higher income peers is that lower income students appear to follow enrollment pathways that reduce cost of attendance. For example, lower income students were more likely to report plans to enroll in a community or technical college and to attend part-time. Although it is difficult to draw conclusions about the relationship between affordability and college choice from the results of this survey, prior research suggests that enrollment decisions and affordability are intertwined.

### Methodological Appendix

The target population for the survey was all West Virginia students who were high school seniors in spring 2010. Respondents were selected through a random, stratified sample. High schools were the primary sample unit, with the sampling frame constructed from a list of all high schools (n=117 in 2010) maintained by the West Virginia Department of Education. High schools were stratified by the size of the senior class as well as the three U.S. Congressional districts in West Virginia in order to make the sample as representative as possible. High schools were assigned to Congressional districts based on the address of their main administrative office. To stratify by senior class size, each high school was assigned to a quartile. The lowest quartile had fewer than 86 students in the senior class, followed by 86 to 137, 138 to 197, and 197 or more. Data on senior class size were obtained from the U.S. Department of Education's Common Core of Data for 2009.

In addition, all Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) schools (n=18) in West Virginia as well as their comparison schools (n=18) were sampled. GEAR UP schools are those that participate in the GEAR UP program administered by the West Virginia Higher Education Policy Commission. Comparison schools for GEAR UP were selected prior to survey administration using Euclidean distance similarity measures. The percentage of tenth- grade students who achieved proficient levels in reading and math in 2008 WESTEST were used as matching factors (except Lincoln County High School, for which the 2009 data were used). Other key school level indicators (e.g., school size, graduation rates, percentage of low-income students, and proportion minority students) were also generally matched for each pair of schools.

Sampling was implemented via PROC SURVEYSELECT in SAS version 9.1. In total, 61 schools—including all GEAR UP and comparison schools were selected to receive the survey. The survey was administered via high school guidance counselors who were asked to distribute hard copies of the instrument during the homeroom period. To elicit a high response rate, three follow-up contacts were made with guidance counselors and principals. In total, 47 of the 61 (about 77%) of high schools had respondents. Overall, 4,592 students responded to the survey, representing about 25 percent of the target population (n=18,472) and 51 percent of the sample (n=9,071).

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