



A Study of the Impact of Arts Education on the Educational  
Performances of Students in Indiana Public Secondary Schools and  
Institutions of Higher Education

Pilot Study Report

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## ACKNOWLEDGEMENTS

**A**rts education is going through an unprecedented period of challenge and opportunity. Arts educators across the country are being asked to solve a myriad of problems and to do more with less. They are stepping up to provide the best quality of arts education possible with varying conditions and support for their efforts. Arts educators are demonstrating high levels of professionalism and creativity in meeting the needs of all of their students.

In many cases arts education programs have been reduced or eliminated, because of the recent economic downturn. With reduced funding state and federal governments, school districts, and administrators have been put in the position of making budget cuts that have forced staff and program reductions which have hampered the efforts of the arts education programs across the country.

In an effort to build arguments in support of maintaining and expanding arts education programming in our schools, business leaders, members of the public, private stakeholders, educators, and researchers have examined the field of arts education and identified numerous reasons why arts education is of value to our nation, states, communities, schools, and individuals. They have provided numerous connections between quality arts education and the economic, social, cultural, and political spheres of our society. America's position of leadership in the world has increasingly been linked to the contributions of arts education in making students ready for college and careers by providing them with knowledge and skills essential for productive living in the 21<sup>st</sup> century.

Indiana has a rich tradition of arts education in our schools and communities and it has been enthusiastically supported by the public. The public holds schools accountable for providing quality education for all of its students. In an effort to discover relationships between arts education and numbers of variables commonly used to measure academic achievement, this

pilot study was conducted. This study attempted to discover whether such relationships exist and to what degree can they be demonstrated through traditional measures of academic achievement.

A study of this kind and scope requires the assistance and support of a wide variety of individuals concerned with arts education in our schools and communities. Each of these individuals has unique knowledge and skills that contributed to enabling this study to be done.

The Executive Director of the Indiana Arts Commission, Lewis Ricci, and I held preliminary discussions beginning approximately two years ago about an idea we had concerning a study about the academic performances of students engaged in arts education programs. He clearly understands and embraces the idea of using research to ground programming, development, and decision-making related to arts education. Throughout the discussion process, he was very supportive and patient. As the research plan came evolved, it experienced a number of issues that needed to be resolved. He was always open to suggestions and supported new directions the study took. His vision for arts education and the contributions it makes to learning in our schools is inspired and worthy of all arts educators and students in arts classrooms across Indiana and the country.

Other individuals at the Indiana Arts Commission (IAC) contributed ideas, support, and facilitated communications between the IAC and me. Susan Britsch, Community Development Manager and Arts Education Coordinator, was instrumental in providing early input about the focus and structure of the study. She also offered insights into numerous questions related to data management. Recently, Paige Sharp, Grants, Research, and Information Technology Manager, and Sarah Fronczek, Program Development Manager, enhanced communications and discussion that led to input and support necessary for completing the study. Their help and ongoing encouragement were of significance.

Members of the board of directors of the Indiana Arts Commission clearly understand the role an education in the arts plays in supporting the arts in communities across the state and country. They have supported arts education programming and artists through the mission and programs sponsored by the IAC. Members of the board have not only contributed their time and expertise to the work of the IAC, but they also have made an ongoing commitment to the people

of Indiana and to enhancing and expanding the fine artistic heritage countless people and communities in Indiana have helped to create and perpetuate.

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A deep debt of gratitude is owed to Dr. Kathy Steele, Superintendent of the Crawfordsville Community School Corporation (CCSC). When approached about her interest in having CCSC participate in the study, she immediately and enthusiastically supported involvement of the school district. Dr. Steele has been a lifelong friend of the arts, professional colleague, and friend. Her vision of quality education manifested itself in numerous programs and initiatives during the course of her tenure in CCSC. Her teaching and work as a dedicated school leader have made CCSC one of the leading school districts in the state. Her

professionalism and selflessness as an educator and administrator have made lasting contributions to the complete education of the citizens of Crawfordsville and the state of Indiana.

The school board from the Crawfordsville Community School Corporation has long been a supporter of quality education in all of the schools in the community. They have provided unwavering support for all initiatives that will enhance education and learning in the Crawfordsville schools. Dale Petrie, Alan Plunkett, Steven McLaughlin, Susan Albrecht, and Ellen Ball have served the needs of the community with their leadership and tireless efforts on behalf of the citizens of Crawfordsville and each of the students in its schools. It is with sincere respect that I thank them for their ongoing support of arts education and arts educators.

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Administration and staff at Crawfordsville High School (CHS) routinely provide support for faculty and students in arts education programming that enable them to pursue their studies in the arts. Greg Hunt, Principal at CHS, Mark Melton, Assistant Principal, and Tami Utterback, Secretary continue to use their knowledge and skills to provide access and resources necessary for faculty and students to engage in meaningful educational experiences and productive learning.

The arts education faculty at CHS is pivotal in providing the kind of quality arts education that has opened the minds and hearts of students in their classes to the power and meaning of an arts education in the lives of everyone. Sincere thanks and appreciation go to them for their ongoing professionalism, dedication, and commitment to their students and to leading their students with inspired teaching through meaningful discoveries of the power of the arts to enhance and to change lives. Visual arts education faculty members Sheila McCormick (retired), Mary Ann Ballenger (recently retired), Jessica Rose, and music education faculty members Connie Meek (retired), Jennifer Fights, and Kyle Schuckman have provided inspired teaching in their respective programs. Their contributions to this study are not evident in the data or in the

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# **A Study of the Impact of Arts Education on the Educational Performances of Students in Indiana Public Secondary Schools and Institutions of Higher Education: Report of a Pilot Study**

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## **INTRODUCTION**

**M**ost Americans feel secure in the belief that the United States is the global leader and that its influence is felt by nearly all people worldwide. People from around the world continue to look to America for leadership, inspiration, protection, and support. However, the role of the United States as a world leader is being challenged on many fronts. Recent international developments and an eruption of worldwide change have called into question the goals and actions America has taken in pursuing its vision for the world.

A number of factors have contributed to challenges to American leadership in the world. These factors have produced remarkable change in the United States and around the world. Ongoing downturns in the economy have been felt in significant ways in the world and across the nation. Unemployment, increasing healthcare costs, lack of investment capital, foreign wars, trade imbalances, and natural disasters have stressed the economic systems worldwide.

Social and political factors have contributed other sets of challenges for world leadership. Political, social, and religious unrest has erupted worldwide causing destabilization of long-standing governments and social systems. Old alliances and partnerships continue to disappear, while new untried and evolving social and political systems emerge.

Technological advances have exploded and consequently have changed the pace and nature of human interaction, connectivity, and accessibility around the world. Technology has provided instant access to and information about problems, situations, issues, and actions affecting people everywhere.

In the United States, Americans have experienced each of these developments in unique ways and have struggled to come to terms with them as a nation. A sagging economy combined with a shrinking middle class, and caustic political partisanship within the United States have stymied efforts to meet the changing needs of the nation, while stressing the social fabric and welfare of the country. In the view of many, education is at the center of the current world and national milieu. Education is being called upon to provide knowledge and skills necessary to maneuver through this difficult period and to provide the answers to global questions with which we are confronted. Many believe that education is the key to maintaining and building American leadership in the world.

## STATEMENT OF THE PROBLEM

Americans have always valued education as a means for personal advancement and national development. It is understood that education is critical for achieving the “American dream” and for the advancement of freedom. America has depended on well-educated citizens to promote the democratic principles that Americans have embraced as a people since its founding and to maintain a high standard of living our capitalist system produces. Education has always been perceived as being essential for our nation’s growth, strength, and security. For these and other reasons, America has always endeavored to provide the finest quality of education for its citizens. States traditionally spend the vast majority of their tax revenue funding schools and educational programming. Local school boards have worked to insure that the local needs of their communities are being met in their schools. Teachers and administrators have enhanced their capacities as educators and educational leaders to raise the levels of achievement among all students.

However, over the past three decades the quality of education our nation’s schools have produced has been called into question. Various indicators suggest that the educational systems of our country are failing to prepare graduates to meet the changing social, economic, and political challenges facing America as a world leader. Some suggest that a failing education system is compromising our nation’s security. Decision makers and other stakeholders have endeavored to find meaningful, equitable, and practical solutions to this growing dilemma.

As a result the field of general education is under tremendous scrutiny and pressure to change. Over the past two decades the goals and purposes of education systems in the United States have been refocused, reshaped, and redefined. For the most part, these changes have been positive and constructive. Today, the field of education continues to be in an unprecedented period of change, restructuring, and redirection fostered by increasing calls for accountability from business leaders, legislators, and the public. During the past decade the pace of change has quickened and the volume of change has exploded in unanticipated ways (Sabol, 2012).

Not all change is being positively received. Participants in a recent study conducted by Metlife (2012), which included educators, school administrators, and parents of students in schools, expressed concerns that the very nature and purposes of education are shifting away from established educational practice, while engaging in educational experiments that are not based on sound research or goals intended to benefit the whole country. Some participants raised concerns that economic, social, political, and legislative agendas are being leveraged to the detriment of providing quality education in our school (Catterall, 2012; Metlife, 2012). Unfortunately, the rapidity of change and the sheer volume of issues and questions confronting the field of education make it difficult for the public and decision-makers to keep fully informed about each of them, much less to be able to see the relationships and potential long term impact these issues and reforms may have on education and welfare of the nation (Sabol, 2012).

## THE ROLE OF ARTS EDUCATION IN A COMPREHENSIVE EDUCATION

**F**rom the colonial period to today, the arts and education in the arts have been valued by the American public. Education in the arts has been included in curricula for hundreds of years and plays a significant role in the education of all literate Americans (Efland, 1990; National Endowment for the Arts, 1988). The arts make a significant contribution to the health of the American economy by contributing billions of dollars to it each year (Americans for the Arts, 2009; Illinois Arts Alliance, 2008; President's Committee on the Arts and Humanities, 2011). It is vitally essential that those entering the workforce in arts related industries and businesses, as well as those who support and participate in arts related industries through purchasing products and services produced by those industries, must receive a comprehensive education in the arts in order to sustain this impact on the nation's economy (Americans for the Arts, 2009; Illinois Arts Alliance, 2008; National Endowment for the Arts, 2009, 2011; President's Committee on the Arts and Humanities, 2011). The burden of providing this education clearly falls on our public and private education systems.

Growing concern about the international competitiveness of the United States led to the formation of the Partnership for 21<sup>st</sup> Century Skills. This consortium of corporations and leaders from business and technology produced a set of skills they identified as essential for all Americans to master in order for America to provide leadership and to be competitive in the world economy. These same skills were deemed as essential for students to advance their

learning in core academic disciplines. A list of 13 skills was identified. They include critical thinking, communication, collaboration, creativity, innovation, information literacy, media literacy, information, communication, and technology literacy, flexibility and adaptability, innovative and self-direction, social and cross-cultural skills, productivity and accountability, and leadership and responsibility.

The 21<sup>st</sup> Century Skills have been embraced widely across the country as a means for improving learning in all disciplines. Dean, Lynch Ebert, McGreevy Nichols, Quinn, Sabol, Schmid, Shauck, and Shuler, (2010) created the 21<sup>st</sup> Century Skills Arts Map. This map includes examples of how each of the 21<sup>st</sup> Century Skills might appear in dance, music, theatre, and visual arts programs at the 4<sup>th</sup>, 8<sup>th</sup>, and 12<sup>th</sup> grade levels. It also includes examples of interdisciplinary themes for learning that include global awareness, financial, economic, business, and entrepreneurial literacy, civic literacy, health literacy, and environmental literacy. The Arts Skills map includes examples of how these themes are routinely addressed in arts education programs. Quality arts education programming is generally suited to address each of these skills and interdisciplinary learning themes in arts education programs in American schools and communities. The 21<sup>st</sup> Century Skills Arts Map serves to establish how arts education contributes to and is compatible with developing and refining these skills which are intended to improve and increase America's competitive edge in the world.

National education reforms have included efforts to create new national standards in various disciplines. Chief among these disciplines are new standards in English Language Arts, Math, and Science, which resulted in publication of what came to be known as the Common Core standards (Common Core State Standards Initiative, 2010a; Common Core State Standards

Initiative (2010b). These standards were created by the Council of Chief State School Officers (CCSSO) and the National Governor's Association (NGA) in 2010. Creation of these standards was in response to claims that there is a gap between high school expectation and what students are expected to know and be able to do in college and careers. The Common Core standards were adopted by 46 states, including Indiana. Growing concern about the standards led Indiana to withdraw its adoption of the Common Core standards in the spring of 2014 in favor of adopting newly created standards in Indiana for English Language Arts and Math. Other states are grappling with the issues related to implementation of Common Core standards and subsequent similar actions taken by Indiana may result in other states.

National standards for education in dance, music, theater, and visual arts education currently exist. These standards were created in 1994 (Consortium for National Arts Education Associations, 1994) by a consortium of arts education professional association leaders and arts educators. From these standards, states created and adopted separate arts standards from which arts educators can create arts education curriculum. Indiana adopted standards for education in dance, music, theatre, and visual arts and periodically has revised these standards (Indiana Department of Education, 2010; 2000).

Since their creation, the national arts standards have not been revised. In 2010 representatives from the professional arts education associations and other stakeholder groups, including American Alliance for Theatre and Education (AATE), Americans for the Arts, Educational Theatre Association (EdTA), The College Board, The John F. Kennedy Center for the Performing Arts, the National Association for Music Education (NAfME), National Art Education Association (NAEA), National Dance Education Organization (NDEO), National Media Arts Representatives, State Education Agency Directors of Arts Education (SEADAE),

and Young Audiences, banded together to create the National Consortium for Core Arts Standards (NCCAS). New national standards for the arts and accompanying Model Cornerstone Assessments (MCAs) were released in June of 2014 ([www.nccas.wikispace.com](http://www.nccas.wikispace.com)). These standards were constructed using the Understanding by Design curriculum construction model created by Wiggins and McTighe (2005). The new standards represent a significant shift from previous standards and will significantly alter the focus of education in the arts in state that adopt the new national standards or create state versions of the standards.

A growing body of research in neuroscience and creativity suggests that cognition and creativity utilized in engagement in arts education, not only enhances learning in other disciplines, but also incorporates higher order thinking, problem solving skills, and integration of learning that support learning and student achievement in more comprehensive ways than other disciplines can (Andreasen, 2006; Dorn, 1999; Efland, 2002; Eisner, 2002; Florida, 2005; Jensen, 2001; Leherer, 2008, 2009; Pink, 2006; Rich, 2009; Root-Bernstein & Root-Bernstein, 1999; Sabol, 2012; Sawyer, 2006; Zimmerman, 2009). The arts have long been associated with the knowledge and skills that are essential for creative outcomes (Dorn, 1999; Efland, 2002; Eisner, 2002). Florida (2005), Pink (2006), and Sawyer (2006) suggested that American educational emphasis on creativity and creative problem solving provide the means through which America may be able to maintain its position of world leadership and vitality. They reported that many foreign nations look to American creative production to contribute to their own growth and prosperity. The reliance on creativity and cognition in arts education programs is another illustration of why an arts education is an essential part of any comprehensive education provided in our schools.

Other studies suggest that there are positive relationships between students' engagement in arts education and high stakes assessments of learning (Catterall, 2012; College Board, 2009; Fiske, 1999; Keiper, et. al., 2009; National Endowment for the Arts, 2011; National Arts Education Consortium, 2002; Pink, 2006; Ruppert, 2006; Sabol, 2009, 2012; Seidel, et. al., 2010). For example, Catterall, Chapleau, and Iwanaga (1999) established relationships between arts involvement and academic performance. They suggested that students with high involvement in the arts, including racial and ethnic minorities and low-income and high poverty groups, performed better in school and stayed in school longer than students with low arts involvement. Catterall, et. al. also reported that students in 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup> grades with high arts involvement outperformed students with low arts involvement on English and reading and math tests and that learning through the arts has significant effects on learning in other domains. They also suggested that the arts guide disadvantaged youth toward positive behaviors and goals that could enable these individuals to lead constructive lives and to make positive contributions to our society as adults.

In the field of education, America's struggling economy caused states to reduce funding levels for schools. These reductions led to cutbacks in programming, loss of staff, and school closings in most states. Schools are being asked to produce more with less financial support and increasing costs. Consequently, school leaders have been forced to make difficult decisions about funding for educational programs that may contribute to improved high stakes language arts and math test results. As a result, increasing amounts of funding have been siphoned off of budgets from other instructional programs in order to purchase test preparation materials, tutoring, and remedial instruction for underperforming students in language arts and math (Sabol, 2011). Unfortunately, arts education programs have been targeted most frequently for these actions with

average cuts of 30% being experienced in visual arts education budgets nationwide, while some programs lost all funding (Sabol, 2011). Data for this study were collected in 2010 before the full impact of the current economic downturn was felt in the nation. It is possible that significantly deeper budget reductions have been experienced in arts education programming since publication of the study in 2011.

According to Sabol (2011), the principal reason such budget decisions were made is due to the federal education legislation known as the Elementary and Secondary Education Act, more commonly known as No Child left Behind (NCLB). NCLB emphasizes the role of assessment and accountability for all schools in the United States through high stakes testing programs as demonstrated in Adequate Yearly Progress (AYP) on language arts and math tests. All schools are required to provide annual test results to state and federal governments as evidence of student progress in meeting AYP requirements of the law.

Curriculum, instruction, and assessment in every American school and in every discipline have been affected by provisions of this law. Local schools are required under provisions of the law to demonstrate growth in student achievement through these test scores. Increasingly negative consequences result if sufficient levels of AYP are not produced each year. School administrators and teachers have employed vast amounts of resources and numerous strategies to meet this requirement. This legislation has had a profound impact on arts education programming in American schools (Sabol, 2011). Some strategies for meeting AYP have prevented students from taking arts education courses in order to take more required language arts and math course offerings. In a study of over 3,400 art educators from across the United States, Sabol (2011) found that visual arts education programs generally have been negatively

affected by NCLB, although some positive outcomes in assessment, curriculum development, and improved instruction have resulted in art education programs. Direct negative consequences of NCLB on arts education programs included staff reductions, budget cuts, increases in class size, reduced time for arts instruction, increasingly complex class schedules, increased class interruptions for students to do test preparation or to take practice tests, reductions in visual arts course offerings, and diminished quality of student work caused by increased time spent on language arts and math instruction in arts education classes and reduced time engaging in studio work.

The US Department of Education's study (Parsad & Spiegelman, 2012) of arts education in public and secondary schools revealed a number of findings which suggest that access to arts education programs across the United States in visual arts and music have declined in the past decade at both the elementary and secondary levels. These findings suggest that previously discussed studies reporting the positive contributions arts education makes to improved student performances on high stakes tests are being ignored or not being given the attention and priority they should be given or that other factors have forced schools to reduce access to arts education courses nationwide. The study also reports that the American public highly value arts education and support its ongoing inclusion in all public schools.

## CONSIDERING THE ROLE OF ARTS EDUCATION AMONG STUDENTS IN INDIANA SECONDARY SCHOOLS AND INSTITUTIONS OF HIGHER EDUCATION

**T**he state of Indiana requires that arts education be provided in all public schools. The Indiana legislature, Department of Education, and the Indiana State Board of Education have made provisions to insure that arts instruction takes place in all schools and communities in the state. On its website the Indiana Department of Education includes the following statement about the contributions an education in the arts makes to the balanced and complete education of all students:

The arts develop one's ability to understand, decipher, and interpret images, symbols, and sensory data in today's technological environment. They provide a means for expression and response when words are inadequate. The self-esteem, self-discipline, cooperation, self-motivation, and skills of problem-solving and critical thinking developed as a result of arts study are essential for success in life. Regardless of capabilities, disabilities, talents, or background, all students deserve access to the benefits that focused arts study can provide. (Indiana Department of Education, [www.doe.in.gov/achievement/curriculum/arts-education](http://www.doe.in.gov/achievement/curriculum/arts-education). Retrieved 4-15-14)

In addition, state curriculum standards in the arts (Indiana Department of Education, 2010) provide comprehensive discipline specific content that must be provided in arts education instructional programming. These standards represent a rigorous plan for quality arts instruction

that is compatible with national arts standards and each of the specific fine arts disciplines. An arts education that meets these standards will contribute to creating artistically literate citizens for the state of Indiana and the nation.

As educators, decision makers, and stakeholders in Indiana grapple with the predicament of how to increase high stakes test scores and how to better prepare graduates of schools in Indiana for college and careers, it is imperative that they consider a breadth of research evidence to inform their decisions. The existing studies of the relationships between academic performances of students and engagement with arts education provide clear and convincing evidence that positive relationships exist between students who have arts engagement and academic achievement. Unfortunately, these studies fail to provide evidence of the impact of arts education involvement has had among students in Indiana public secondary schools and institutions of higher education. Studies of various indicators of academic achievement and their relationships with students with arts education engagement compared with those of students without arts education engagement promise to inform decision and policy making related to curriculum and instruction, assessment and program development, financial and program allocation, and numerous additional educational quality decisions made at all levels within the state. At this point the relationships between secondary and collegiate students' involvement in arts education programming and academic achievement are unknown in the state of Indiana. In an effort to establish baseline data for these questions, a pilot study was done to ascertain whether such relationships exists and to further identify the extent and the nature and characteristics of such relationships.

## THE PILOT STUDY

In a proposal submitted to representative from the Indiana Arts Commission, the Indiana Department of Education, and the Indiana Commission for Higher Education in 2013, a study of high school graduates from Indiana secondary schools was detailed. The study would endeavor to discover whether high school graduates from the past three to five years, who took arts education courses, differed in their performances with regard to a number of measures of academic performance from students who did not take arts education courses.

As discussions about the availability of data from all school districts in the state needed for the study unfolded, it was discovered that existing data bases were not fully populated and the span of data needed for the study was not available at that time. It was reported that in another year or two, fully populated data bases could be provided for the study by state agencies. With this condition in mind, it was decided that Dr. F. Robert Sabol, the Principal Investigator (PI), should conduct a pilot study of one or more school districts that could provide a full range of necessary data needed for the research.

The PI contacted Dr. Kathy Steele, Superintendent of the Crawfordsville Community School Corporation (CCSC), about whether the district would participate in a pilot study to investigate the research questions included in the original proposal. Consent was granted by Dr. Steele. Following authorization of the study by Dr. Steele, steps were taken to acquire approval for the study by the Purdue University Institutional Review Board (IRB) and in the CITI Researcher Certification Course in the Protection of Human Subjects protocols in the Research

module of the course. Efforts were made to insure that all protocols of this kind were observed throughout the study. Following approval by the IRB, all information in the data that could be used to identify students was removed by the CCSC, prior to providing the data to the PI. These steps were taken in accordance with required research protocols for this kind of study.

## OBJECTIVES OF THE STUDY

This study investigated whether relationships exist between arts education involvement and academic performances in Indiana secondary schools and institutions of higher education. Students' engagement with arts education involvement or lack of arts education engagement and measures of academic performances in Indiana secondary schools was studied. Students' academic performances among those who have had arts education involvement were compared with academic performances of students without arts education involvement to determine the relationships such involvement may produce. If such relationships were identified, the nature and significant aspects of these relationships were explored and are discussed in this report.

The study addressed the following research questions:

1. Do relationships between students' academic performances, as exhibited in GPAs, SAT or ACT scores, End of Course Assessments (ECA), graduation rates, graduation rankings, standardized test scores, or other measures of academic performance, and arts education engagement, in the form of course taking patterns or other forms of involvement and engagement with arts education programming, exist among students in secondary schools in Indiana?
2. If such relationships exist, what is the nature of those relationships and what variables contribute to the impact these relationships may have in positively or negatively affecting academic performances among students in secondary school in Indiana?

## METHODOLOGY

This study utilized quantitative research methodology. Data were pulled from existing data bases and migrated to data bases constructed specifically for this study by the data management specialist from the CCSC. Email and telephone communications were held between the PI, CCSC superintendent, and the CCSC data management specialist about the study and about necessary data needed to conduct the study. Communications focused on providing the range of data needed for the variables being examined in this study. Descriptive statistics were used to summarize empirical data. Summaries of findings will be reported below.

### Data Sources

Data were collected and provided by the CCSC using instruments created by the school district for this purpose. Data for all graduates of the CCSC from 2010 through 2013 were included in the data sets provided. All references to “students” refer to those individuals who graduated during the year(s) identified in the report. Data for some variables were not available for all years included in the study. For example, data were not collected in 2010 for the End of Course Assessment (ECA) in English 10, because the ECA was not required until 2011. Other such missing data were of a limited nature and did not prevent analysis of trends or outcomes for the research questions. Such data were not available because CCSC did not collect these data for every year in the study.

Data for subjects included in the study were “dummy” coded before being provided to the PI in order to conceal the identity of subjects from the researcher. Data sets did not include

identities of individual students or any other information that could compromise the anonymous identities of students included in the data sets. Following removal of all identifying information about student identities, these “cleaned” data were provided to the PI for analysis in the form of Microsoft Excel files spanning the period from 2010 through 2013. The samples include all students who graduated from CCSC during that period.

Data sets included fields established for gender, high school ranking, high school GPAs, SAT and/or ACT scores, cumulative college GPAs, arts education courses completed, and post graduate plans. Data sets were stored in a secured lock box in the PI’s office and were not shared with anyone. Upon completion of the study, data sets were returned to CCSC and all hardcopy records and digital files created during the study were destroyed.

## **Procedure**

Excel cross-tab analyses were performed on the data sets. This analysis involves isolating subgroups of subjects who were engaged in arts education programs from those who were not. Additional analysis was conducted for these two groups to identify profiles of variables that reveal positive and/or negative relationships of these variables in affecting academic performances between students who took arts education courses in high school with those students who did not. Descriptive statistics were used to summarize analyses of grouped responses. Data from subgroups were aggregated, analyzed, and are presented below in this report. Reports of findings for all subgroups from each year for which data were available are provided in this report. Descriptive statistics have been used to summarize aggregated findings of comparisons for the variables being studied for the two groups. In addition to discussion of the

findings, graphs, tables, and charts of key findings are included to illustrate information in this report. Discussion of the findings is provided in the report of findings.

## FINDINGS

**T**his report of findings is intended to be descriptive in nature. It will include summary reports of findings for each of the variables identified in the research questions developed for this study. Discussion of the meaning and interpretations of the findings is included at the end of this report.

Findings from the study explore students' course taking patterns and their performances on various measures of academic achievement. Findings for variables such as GPA, ACT, PSAT, and SAT scores, End of Course Assessment (ECA) scores in English 10 and Algebra I, courses taken in dance, music, theatre, and visual arts, and fine arts credits earned, will be reported. Additional reports for diplomas earned and post-graduate plans are provided.

### The Community

This report provides an example of a case study of students' engagement in arts education programs for one suburban school district located in a community of approximately 13,000 people in the state of Indiana. This school district is in west central Indiana and it is in a community that is predominantly rural with emphasis on farming and light industry, small manufacturing, and retail businesses. It is centrally located near a large metropolitan district and additional towns of approximately equal size. The town serves as the county seat housing governmental offices and facilities. A small private liberal arts college, with a significant emphasis on the arts, is located in the community. The community has a historic connection to the arts, with several notable authors and artists having lived in the community. Art galleries,

artists' studios, public art, murals, and monuments, a local civic theatre, a civic band, dance studios, and a local arts festival and public concerts contribute to creating an ongoing and historic emphasis on the arts and the contributions the arts make to the community as a whole.

## **The School**

The community has a single school corporation, the Crawfordsville Community School Corporation (CCSC), with two additional independent school districts in the county. There is a single high school, a single middle school, and three elementary schools in the district. Other education centers in the district provide services for preschool students and additional specialized learning needs (GED, Early Childhood, etc.) of students. The school district is well-known for its leadership in the state in the field of gifted education and for its use of technology in all programs. It provides a full array of extra-curricular, sports, and other programming to support the curriculum and to meet the needs and interests of students. Faculty members in the district are highly-trained and licensed, with most holding advanced degrees in education. Classrooms, computer labs, libraries, theatres, and additional space are provided to support education in the arts. Most of the schools have original student or professionally created works of art on display. The school district went through a building and remodeling program beginning approximately two decades ago which resulted in remodeling of the elementary schools and construction of a new high school in 1993. At this writing, the CCSC is constructing a new middle school. The new school is scheduled to open in the fall of 2014. Classrooms, computer labs, libraries, theatres, and additional space is provided to support education in the arts.

The following is a description of the high school as provided on the Crawfordsville High School website

([www.cville.k12.in.us/cville/Buildings/CrawfordsvilleHighSchool/AboutCHS.aspx](http://www.cville.k12.in.us/cville/Buildings/CrawfordsvilleHighSchool/AboutCHS.aspx)).

### **History**

Crawfordsville High School (CHS) is a comprehensive public school for students in grades nine through twelve. The new facility was opened in the fall of 1993. The building is located on 80 acres of land and includes all athletic facilities. The enrollment for 2001-2002 is 672 students. CHS is accredited with the North Central Association of Secondary Schools and holds a First Class commission from the Indiana Department of Education. CHS is a member of the Sagamore Athletic Conference and has served as a model site for many state programs, including the Gifted and Talented Program instituted by the State of Indiana. Classes meet five days a week for fifty minutes each during the seven-period day with a student activity/reading period held once a week for 25 minutes.

### **Faculty**

The faculty consists of 44 full-time and two part-time teachers, a principal and assistant principal, an athletic director, an aquatic director, two guidance counselors, a school nurse, and a full-time media director. Eighty percent of the staff holds master's degrees. Shared teachers are utilized in music, social studies, and physical education. Four teachers and two aides are provided for special education needs.

### **Curriculum**

The curriculum is designed for both the college bound and vocational students. CHS's commitment toward technology is evident. Students in speech, math, economics, U.S. history, and English use laptop computers to integrate applications software into

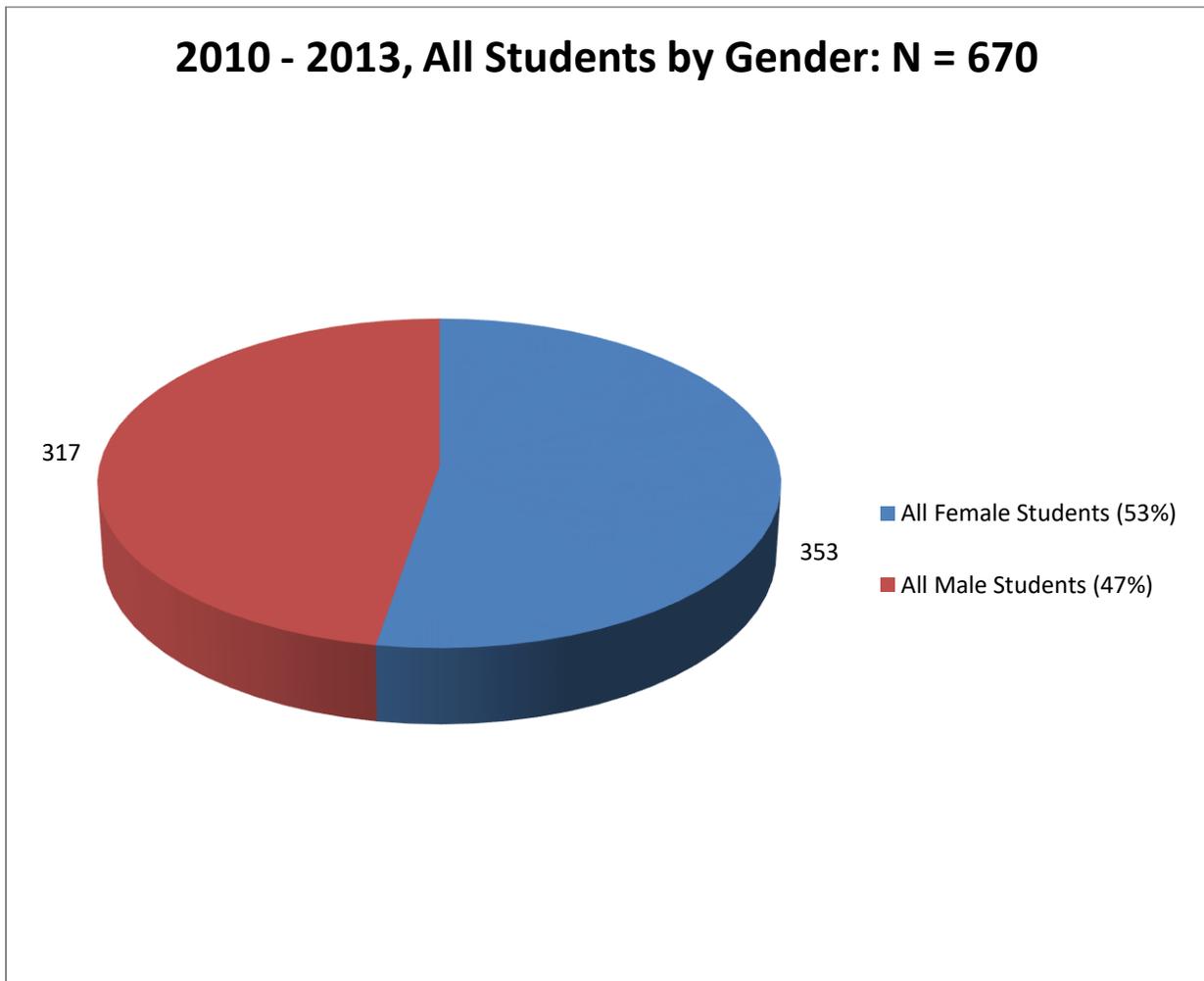
curriculum projects. Students have the opportunity to link to the Internet to gain additional and current information. An extensive interactive video, distance learning program is available for students and teachers to receive classes and to provide enrichment opportunities. Technology also includes instruction via satellite down link through IHETS system, allowing students to access classes not offered on campus. Honors classes are available to academically talented students through an identification process. A High Academic Honors Diploma and an Academic Honors Diploma are also available for those students meeting the necessary requirements. Crawfordsville has National Merit status students. Remediation is provided in academic areas for students that need it.

## **The Students**

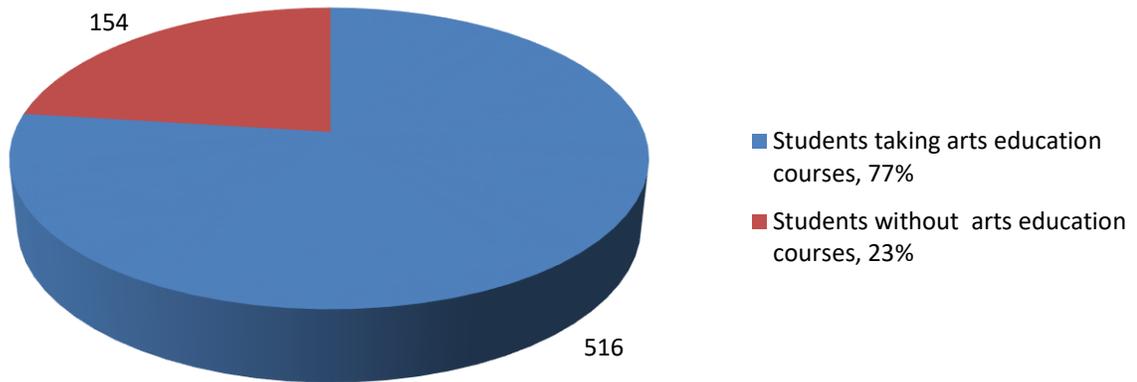
Students included in the study attended and graduated from the Crawfordsville High School from the period of 2010 through 2013. Reports of various indicators of student performances will be provided below. The reports will include aggregate findings about all students from this period followed by additional analyses about students who graduated with arts credits contrasted by findings for students without arts credits upon graduation. For selected instances, reports of findings for individual years within the period will be provided as well.

Data were provided for a total of 670 students in the school district for the period from 2010 through 2013. Of these 353 or 53% were females and 317 or 47% were males. Of all students enrolled in the school from 2010 through 2013, a total of 516 or 77% took arts education courses and 154 or 23% did not. The annual range for all students taking arts education courses was from 142 to 115. Of those students not taking arts education courses, the

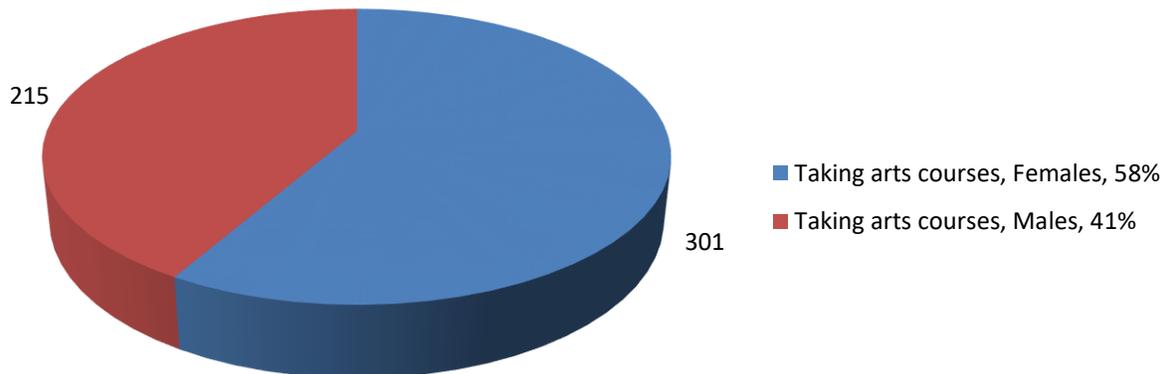
range was from 46 to 30. Of all students taking arts education courses, 58% were female and 41% were male. Of those not taking arts education courses 34% were female and 66% were male. Of students who took arts education courses, the range was from 82 to 69 for females and from 60 to 46 for males. For students not taking arts education courses, the range was from 19 to 9 for females and from 36 to 17 for males.

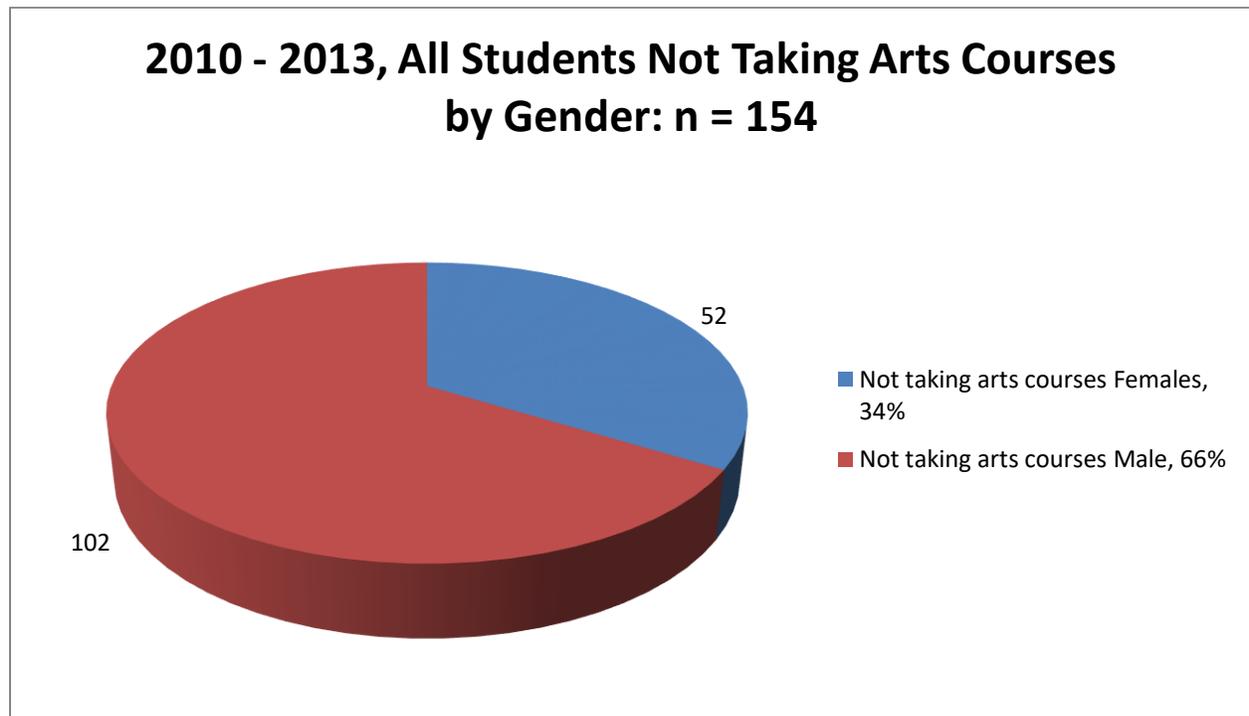


### 2010- 2013, Students Taking Arts Courses and Students Not Taking Arts Courses: N = 670



### 2010 - 2013, All Students Taking Art Courses by Gender: n = 516



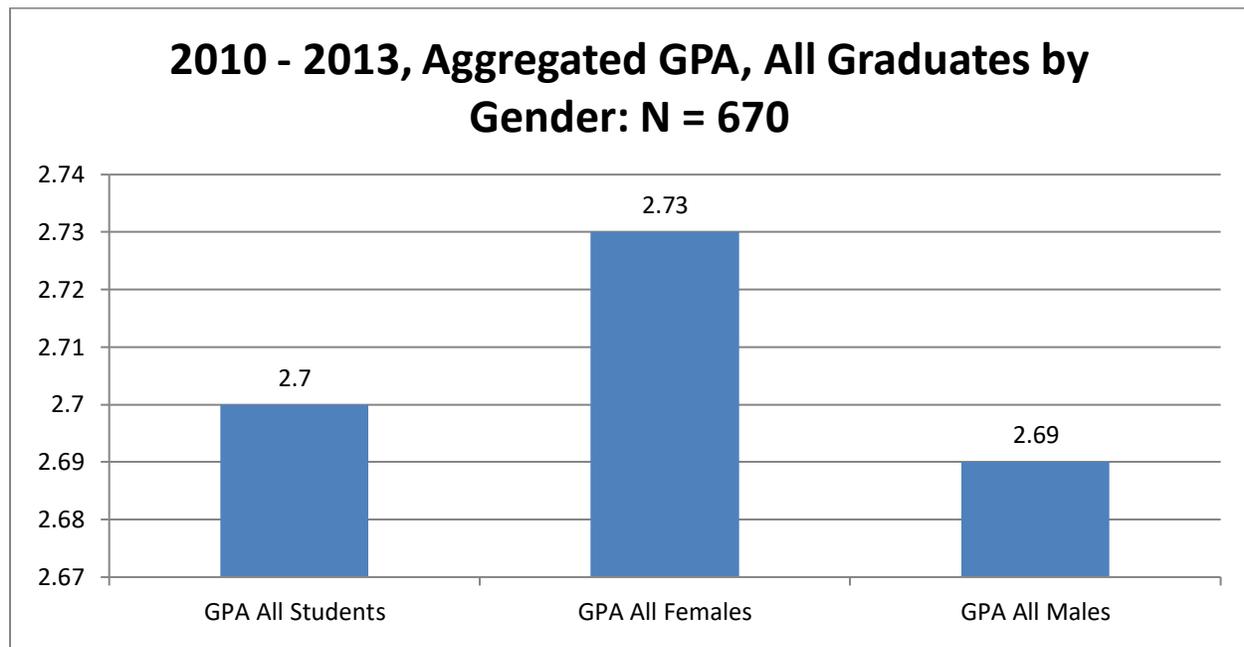


### Grade Point Averages (GPA)

Grade Point Averages (GPA) are commonly accepted as a measure of academic excellence. Grading scales vary among school districts and within programs. The school district in the study utilizes a four point grading scale. In some school districts courses taken in Advanced Placement or Honors Programs are weighted to have a greater value in calculating the overall GPA of students. This school district uses a weighted scale when calculating GPAs that include grades from its Advanced Placement and Honors Program. Therefore, it becomes possible to achieve a GPA greater than the maximum allowable score of 4.0 on a 4 point scale. GPAs from students in honors programs were included in the calculation of aggregated GPAs for this study.

## Aggregated Grade Point Averages (GPA) for All Graduates

Final GPAs for all graduates from the period of 2010 through 2013 were provided for analysis in this study. Aggregated GPAs were calculated for all students from this period. Additional aggregated GPAs were calculated for each of the years included in the study. Aggregated GPAs also were produced for females and males. For all students who graduated between 2010 through 2013, the aggregated mean GPA was 2.7. The aggregated mean GPA for all females for this period was 2.73 and 2.69 for all males.



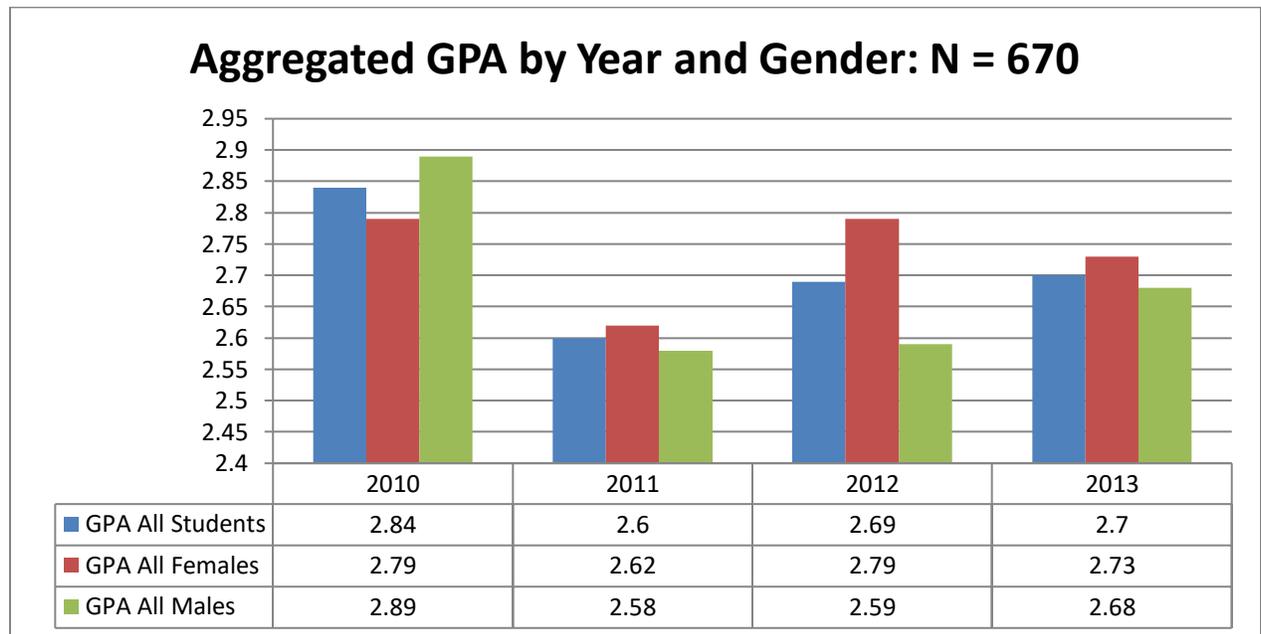
GPAs were calculated for all graduates for each year included in the study. Additional analyses were performed to identify GPAs by gender for each of these years. Findings from these analyses are reported below.

For the academic year of 2010, the aggregated GPA for all graduates was 2.84 and 2.79 for all females, with 2.89 for all males.

For the academic year of 2011, the aggregated GPA was 2.6 for all graduates, 2.62 for all females, and 2.58 for all males.

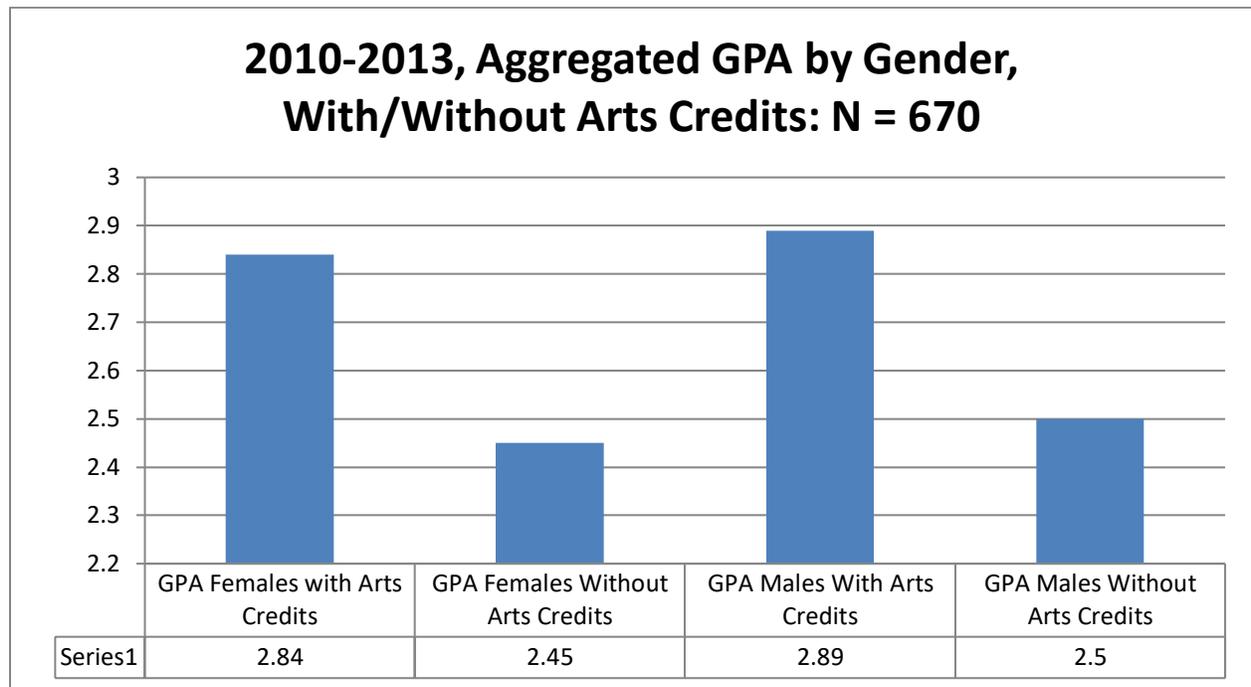
The aggregated GPA for all graduates for the academic year of 2012 was 2.69, with 2.79 for all female graduates, and 2.59 for all male graduates.

For the academic year of 2013, the aggregated GPA was 2.7, while female graduates had an aggregated GPA of 2.73 and male graduates had an aggregated GPA of 2.68.



### Aggregated Grade Point Averages for All Graduates with and without Arts Credits

For all students who graduated between 2010 and 2013 and for all graduates with or without arts credits, aggregated GPAs were calculated. Among all females for this period who had arts credits, the average GPA was 2.84. For all females without arts credits, the average GPA was 2.45. All males with arts credits had an average GPA of 2.89 and all males without arts credits had an average GPA of 2.5.



GPA's for graduates with or without arts credits varied from year to year during the period from 2010 through 2013. In 2010, 174 students graduated. GPA's for females with arts credits (41%) was 3.14, which was the highest average GPA for all female subgroups in the study and for all male and female student subgroups between 2010 and 2013. Females without arts credits (11%) had a combined mean GPA of 2.43. During this same period, males with arts credits (32%) had a mean GPA of 2.91, which was the second highest mean among male groups in the study. Males without arts credits (16%) had a mean GPA of 2.87.

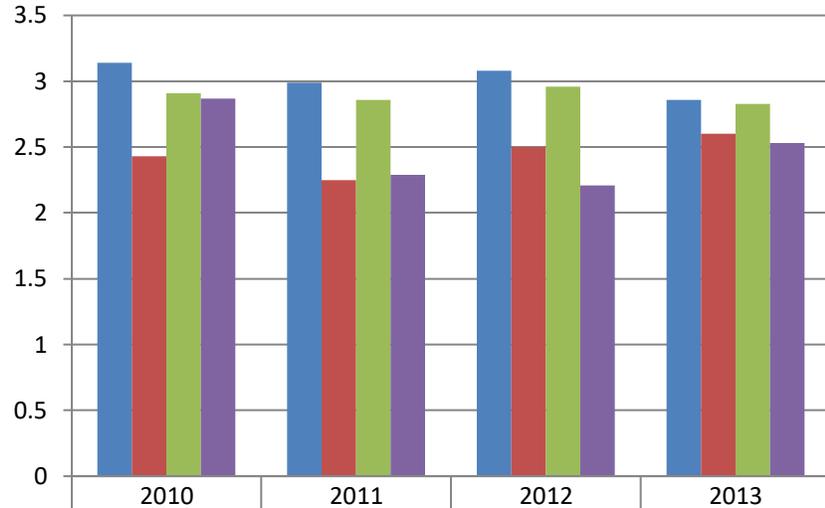
In 2011, 175 students graduated. The mean GPA for females with arts credits (45%) was 2.99. For females without arts credits (5%), the mean GPA was 2.25, which was the lowest average GPA produced among all female subgroups included in the study. For males with arts credits (30%) during this period, mean GPA was 2.86 and for males without arts credits (20%) the mean GPA was 2.29.

For 2012 a total of 149 students graduated. Of this number females with arts credits (47%) produced a mean GPA of 3.08, which was the second highest GPA for all groups graduating from 2010 through 2013. Females without arts credits (7%) during 2012 had a mean GPA of 2.5. Males with arts credits (31%) in 2012 produced a mean GPA of 2.96, which was the highest GPA among all males groups with or without arts credits from 2010 through 2013. Males in 2012 without arts credits (15%) had a mean GPA of 2.21, which was the lowest mean GPA produced for all male subgroups in the study and for all subgroups, including females and males, between 2010 and 2013.

A total of 172 students graduated in 2013. Female graduates in this group with arts credits (48%) had a mean GPA of 2.86. Females without arts credits (8%) had a mean GPA of 2.6. Males with art credits (35%) for this period had a mean GPA of 2.83 and males without arts credits (10%) had a mean GPA of 2.53.

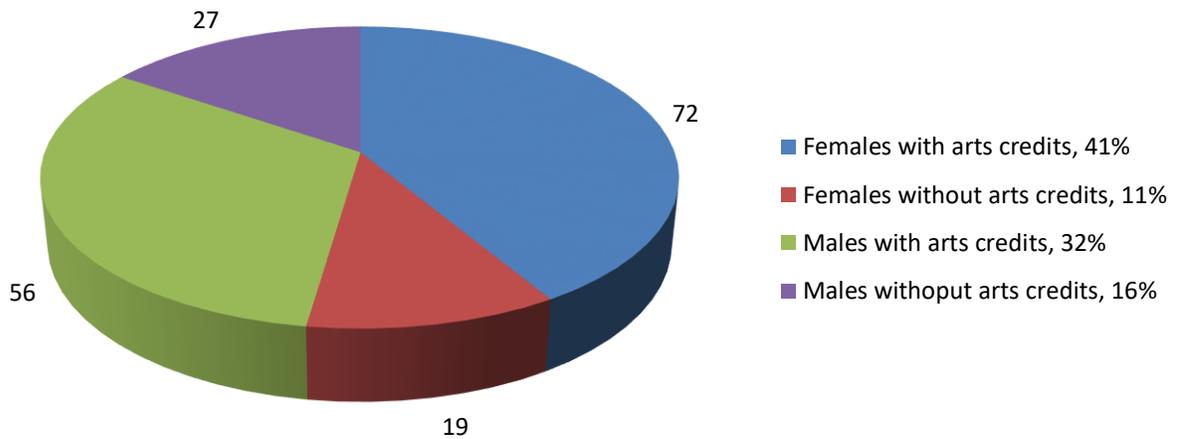
### GPA, by Year, Gender, With/Without Arts Credits:

N = 670

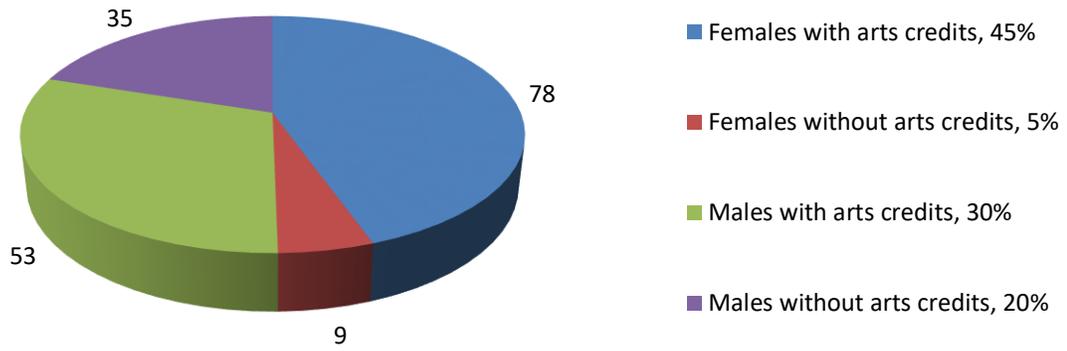


■ GPA, Females With Arts Credits	3.14	2.99	3.08	2.86
■ GPA, Females Without Arts Credits	2.43	2.25	2.5	2.6
■ GPA, Males With Arts Credits	2.91	2.86	2.96	2.83
■ GPA, Males Without Arts Credits	2.87	2.29	2.21	2.53

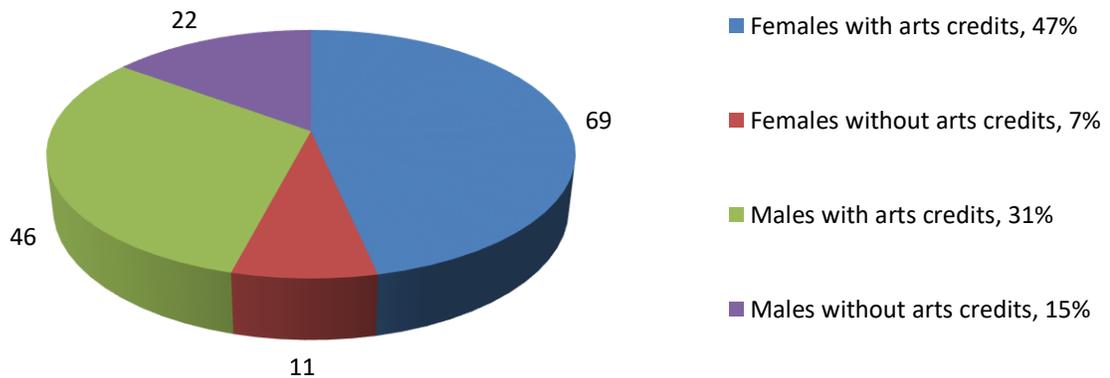
### 2010, With/Without Arts Credits, by Gender: n = 174

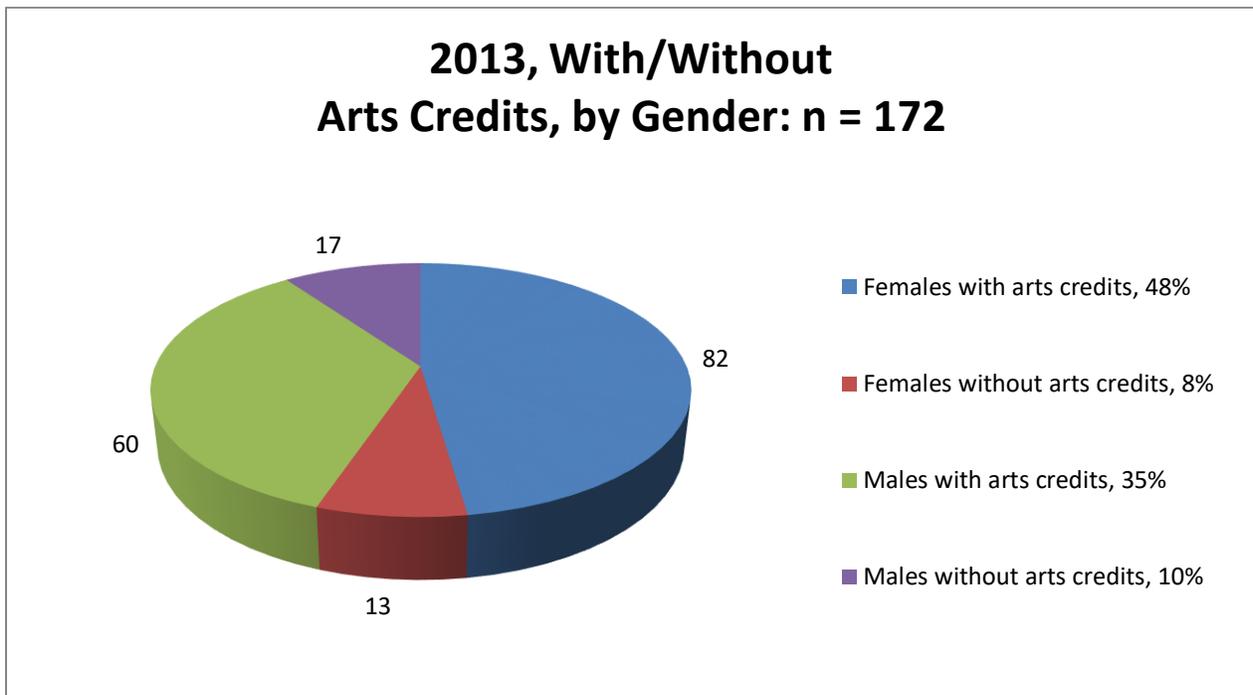


### 2011, With/Without Arts Credits, by Gender: n = 175



### 2012, With/Without Arts Credits, by Gender: n = 149





## Standardized Assessments Used to Measure Student Achievement

Schools are held accountable by the public for demonstrating that students are learning and that their achievement has been measured through objective measures. Grades, test scores, performance assessments, and other standardized measures, such as the Indiana Statewide Testing for Educational Performance-Plus (*ISTEP+*) and the PSAT, SAT, and ACT, are accepted as evidence of students' achievement levels.

The federal government, in the Elementary and Secondary Education Act (ESEA), commonly known as No Child Left Behind (NCLB), mandated that results from standardized tests, such as the *ISTEP-Plus* test, or other academic measures, be reported by state departments of education annually in English/Language Arts and Mathematics. Various standardized tests or

state-developed assessments are used by school districts to meet this mandate. Individual states have been allowed to develop assessment programs designed to meet this requirement. In Indiana elementary schools, ISTEP+ is used for this purpose. Annually, elementary students in third through eighth grade complete ISTEP+ testing. At the secondary level ISTEP+ testing occurs in the form of End of Course Assessments (ECAs) to meet this state requirement.

### ***ISTEP+* and End of Course Assessments (ECAs)**

The Indiana Department of Education requires that all students in grades 3 through 8 take tests in the *ISTEP+* program. The purpose of the *ISTEP+* program is to measure student achievement in the subject areas of English/language arts, mathematics, science, and social studies. *ISTEP+* tests consist of two major components including multiple-choice and applied skills or open-ended items. The multiple-choice and applied skills assessments are criterion-referenced and are designed to measure students' mastery of the *Indiana Academic Standards*. These tests are given annually.

Students in secondary schools also participate in the *ISTEP+* program. They are required to pass End of Course Assessments (ECAs) in Language Arts and Math for reporting purposes to the state and federal government. These ECAs, in addition to an ECA in science, and Biology I are mandatory in order to qualify for graduation from public schools in Indiana. Previously, ECAs were called Graduation Qualifying Exams (GQEs). In the 2009-2010 school year, the GQE was replaced with ECAs, including one for Algebra I and one for English 10. These tests function in the same way as GQEs and serve the same purpose. Like GQEs, ECAs can be retaken twice a year until students pass the test or reach their senior years. Students who do not

pass the ECAs are placed in remediation classes the following semester for the subject(s) that they failed. They remain in these classes until the semester after passing both sections.

ECAs are part of a program called *ISTEP +*. The Indiana Department of Education describes the *ISTEP+* program as follows:

The purpose of the *Indiana Statewide Testing for Educational Progress-Plus (ISTEP+)* program is to measure student achievement in the subject areas of English/Language Arts, Science, and Mathematics. In particular, *ISTEP+* reports student achievement levels according to the Indiana Academic Standards that were adopted in November 2000 by the Indiana State Board of Education. The *ISTEP+* End of Course Assessments (ECAs) are criterion-referenced assessments developed specifically for students completing their instruction in Algebra I, Biology I, or English 10. (Indiana Department of Education, <http://www.doe.in.gov/assessment/end-course-assessments-ecas>, retrieved 5-15-14)

ECA results are used as evidence provided to the state by school districts that their graduates are meeting secondary school requirements for achieving Adequate Yearly Progress (AYP) specified in the ESEA federal education legislation. The Indiana Department of Education provides reports of *ISTEP+* results to the federal government in compliance with this legislation. *ISTEP+* scores for science and Biology I were not provided for this study and will not be included in this report.

### *ISTEP+*: Algebra I ECA Results

The Indiana Department of Education requires that all students in public schools must have from four (General Diploma) to eight credits (Core 40 with Academic Honors Diploma) in

mathematics to earn a high school diploma. In addition, all students must pass an ECA for Algebra I. The Algebra I ECA addresses the nine state standards established for mathematics in Algebra. They include the following: Standard 1: Operations with Real Numbers; Standard 2: Linear Equations and Inequalities; Standard 3: Relations and Functions; Standard 4: Graphing Linear Equations and Inequalities; Standard 5: Pairs of Linear Equations and Inequalities; Standard 6: Polynomials; Standard 7: Algebraic Fractions; Standards 8: Standard 9, Mathematical Reasoning and Problem Solving.

The first eight content standards are grouped into five categories for reporting student achievement. Items that address Standard 9 (Mathematical Reasoning and Problem Solving) are mapped to a specific content area in Standards 1-8.

The Indiana Department of Education publishes cut scores for Algebra I ECAs. A passing score of 564 is required in order to meet state graduation requirement for mathematics.

### **End of Course Assessments Cut Scores**

2009-2010 School Year and Beyond

	Pass	Pass+	Minimum	Maximum
Algebra I	564	665	300	900

(Indiana Department of Education Course Requirements

<http://www.doe.in.gov/assessment/end-course-assessments-ecas>, Retrieved May 15, 2014.)

CCSC includes information about the *ISTEP+* Algebra I ECA for students in the following excerpt from the *Crawfordville High School Student Handbook*:

### **Mathematics Requirements**

- The State Board set the expectations that all students earning a diploma (i.e., any student except for a certificate of completion students) have access to completing **Algebra I** by the end of their freshman year. (*Crawfordsville Community School Corporation, Student Handbook*, Retrieved 5-15-14)

The course description for Algebra I and for the Mathematics Lab, in which students take the ISTEP Algebra I ECA, provided in the *Crawfordsville High Curriculum Guide* read as follows:

**Algebra I (2520)** (9, 10, 11, 12) 2 semesters, 2 credits

Algebra I provides a formal development of the algebraic skills and concepts necessary for students who will take a geometry course and other advanced college-preparatory courses. In particular, the instructional program in this course provides for the use of algebraic skills in a wide range of problem-solving situations. Topics include: (1) operations with real numbers, (2) linear equations and inequalities, (3) relations and functions, (4) polynomials, (5) algebraic fractions, (6) Quadratic, cubic, and radical equations, (7) nonlinear equations, (8) mathematical reasoning problem solving, (9) Data Analysis, and (10) Probability.

**Prerequisite:** None. (Crawfordsville Community School Corporation, *Crawfordsville High School Curriculum Guide*, p. 23)

**Mathematics Lab –ECA(2560)** (9,10, 11, 12) 2 semesters, 2 credits

Students in grades nine through twelve who have not passed the mathematics portion on the state graduation exam (ECA/Core40) are enrolled in this course offered both semesters. This is an independent study course designed to review Algebra 1 topics tested on the Core40 exam. This course will be for elective credits only and NOT fulfill math graduation credit.

**Co requisite:** Algebra 1 & Teacher Placement C- or lower in Pre-Algebra (Crawfordsville Community School Corporation, *Crawfordsville High School Curriculum Guide*, p. 23)

### *ISTEP+*: Algebra I ECA Results for All Graduates

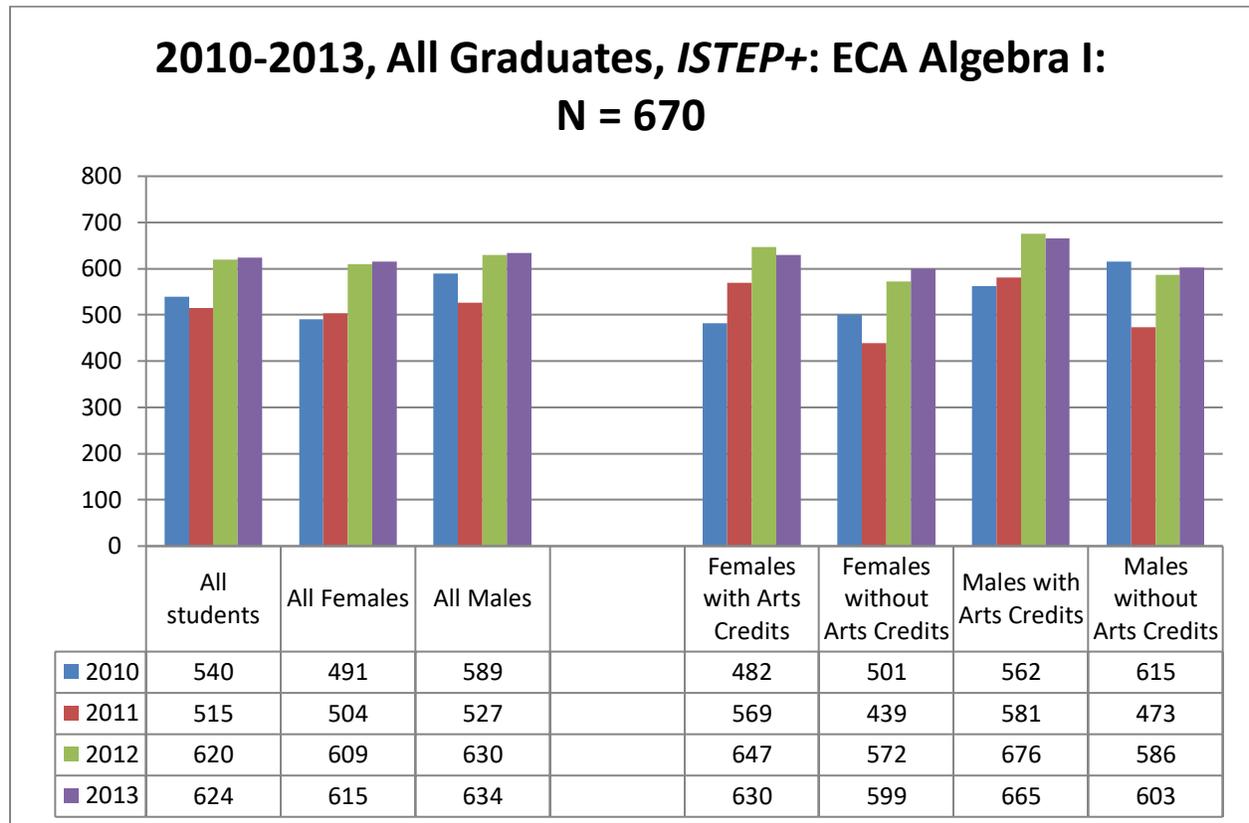
Data from Crawfordsville High School students' Algebra I ECAs were analyzed and are summarized below. Aggregated *ISTEP+* scores for all students from 2010 through 2013 produced an aggregated mean score of 575. Mean scores for this period ranged from 515 in 2011 to 624 in 2013. For this same period the mean ECA Algebra I scores for all females was 555 and means ranged from 491 in 2010 to 615 in 2013. The mean ECA Algebra I scores for males was 595 and means ranged from 527 in 2011 to 634 in 2013. In 2010, 40.9% of students passed the Algebra I tests. In 2011, 70.9% of students passed the test and in 2012, 80.8% of all students passed the test. Pass rate data for 2013 were not available at the time of this writing.

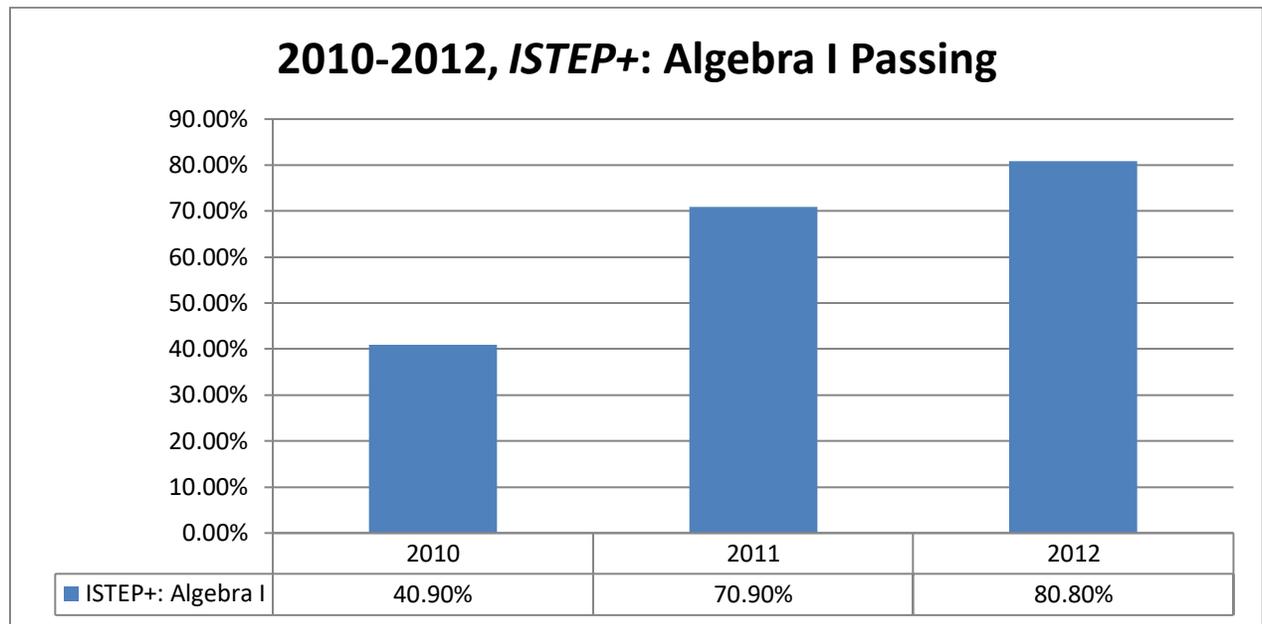
### *ISTEP+*: Algebra I ECA Results for Graduates with and without Arts Credits

Aggregated *ISTEP+* Algebra I ECA scores for all students from 2010 through 2013 with arts credits produced a mean score of 575. Students with arts credits outperformed students with arts credits in 2011, 2012, and 2013. The aggregated mean for all students in this period with arts credits was 602 and 549 for those without arts credits. The mean for females with arts credits for that period was 582 and ranged from 569 to 647. The mean for males with arts credits was 621 and male means ranged from 562 to 676. ECA Algebra I means for students without arts credits from this same period for females and males were 527 and 569 respectively with ranges of 439 to 599 for females and 473 to 603 for males.

In 2010 females and males without arts credits outperformed males and female with arts credits. For females without arts credits the mean score was 501 compared to 482 for females

with arts credits. Males without arts credits outperformed males with arts credits with scores of 615 and 562 respectively.





NOTE: *ISTEP+* Algebra I passing rates data for 2013 were not available.

### *ISTEP+*: English 10 ECA Results

Students in secondary schools in Indiana are required to pass the *ISTEP+* English 10 ECA for graduation. English 10 ECAs must meet English 10 standards. Those standards include: Standard 1: Word Recognition, Fluency, and Vocabulary Development; Standard 2: Reading Comprehension and Analysis and Informational Text; Standard 3: Reading Comprehension and Analysis of Literary Text; Standard 4: Writing: Process and Features; Standard 5: Writing: Applications; and Standard 6: English Language Conventions.

English 10 ECA cut scores are published by the Indiana Department of Education. A passing score of 360 is required to meet state graduation requirements.

#### **End of Course Assessments Cut Scores**

2009-2010 School Year and Beyond

Pass                  Pass+                  Minimum                  Maximum

English 10    360                    589                    100                    700

(Indiana Department of Education Course Requirements

<http://www.doe.in.gov/assessment/end-course-assessments-ecas>, Retrieved May 15,  
2014.)

The course description for the Language Arts Lab ECA, in which students take the *ISTEP+* English 10 ECA, is provided in the *Crawfordsville High Curriculum Guide* and read as follows:

**Language Arts LAB ECA (1010)**            (10, 11, 12)                    1 semester, 1 elective credit

Language Arts Lab is a reading and writing class, utilizing a workshop approach. This course provides a boost with language skills so that students who do not receive help through any other program can experience more success in their other classes and perform at appropriate grade levels on achievement tests. This class is taken concurrently with the student's required English class. Students who do not pass the ECA will repeat the course.

**Prerequisite:** Did not pass English ECA (Crawfordsville Community School Corporation, *Crawfordsville High School Curriculum Guide*, p. 18)

Analysis of English 10 data were provided for 2011 through 2013. No data were provided for 2010. Data from 2011 represent a year in which a pilot test was conducted and represents scores from five females with arts credits and a single female student without arts credits. These data do not provide a representative sampling of students from that year; however, those data were included in analyses in order to show means of students participating in the pilot.

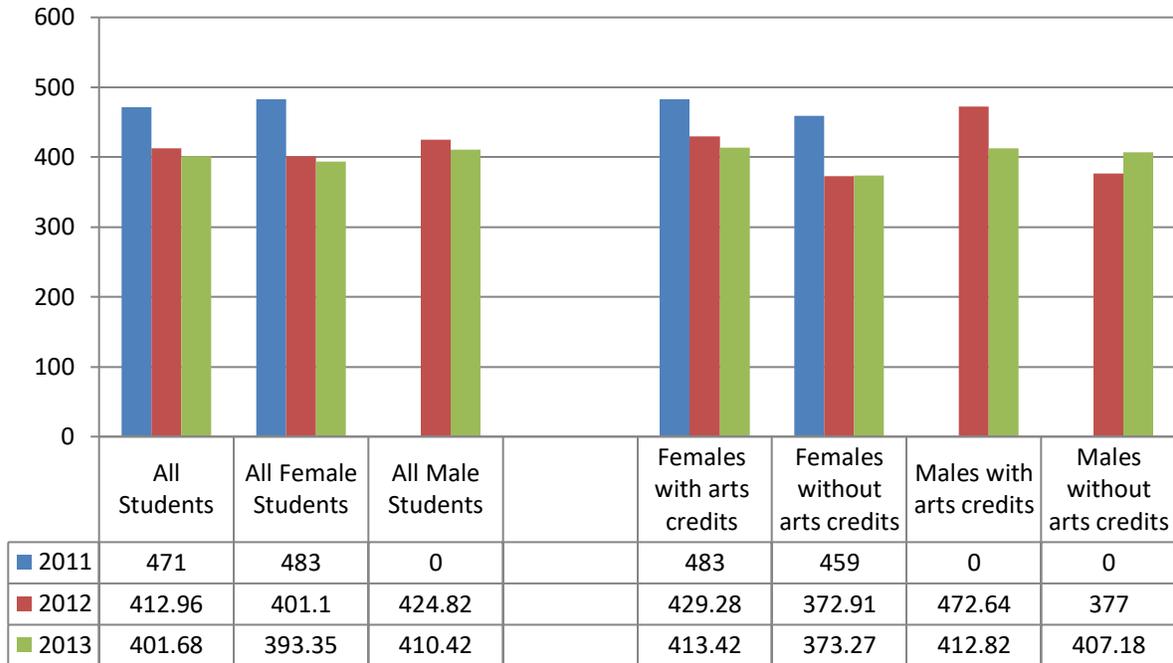
### *ISTEP+*: English 10 ECA Results for All Graduates

*ISTEP+* English 10 means for all students from 2011 through 2013 produced an aggregated mean score of 429 with means of 392 and 418 for females and males respectively. Mean scores for all students in this period ranged from 393 in 2013 to 483 in 2011. For this same period the mean ECA English 10 for all females was 426 with a range from 393 in 2013 to 483 in 2011. The ECA English 10 mean for all males was 418 with a range from 410 in 2013 to 425 in 2012. Although *ISTEP+* ECA English 10 data were not provided for analysis, a review of data summaries found on the Indiana Department of Education website report that 57.9 percent of students passed the ECA in 2010 followed by 62.5 percent in 2011 and 74.5 percent in 2012. Summary passing rates were not published for 2013 on the website.

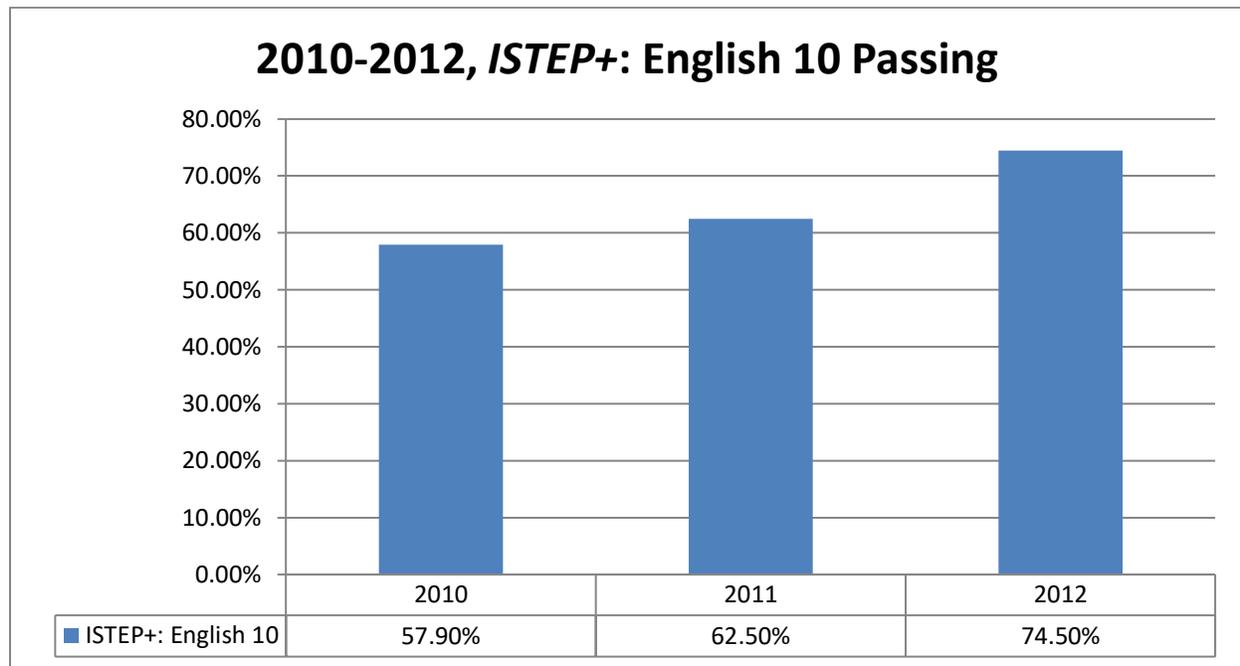
### *ISTEP+*: English 10 ECA Results for Graduates with and without Arts Credits

Means for ECA English 10 were produced for students with arts credits and for those without arts credits. Females with arts credits had a mean score of 442, while males with arts credits had a mean score of 443. The range of means for female with arts credits means was from 413 to 483. The range of means for males with arts credits was from 413 to 473. Females without arts credits had a mean score of 402 with a range of 373 to 459. Males without arts credits had a mean score of 392 with a range of 377 to 407.

### ECA, All Graduates, *ISTEP+*: English 10, 2011-2013: n = 471



NOTE: No ECA, English 10 data provided for 2010. Data for 2011 represent 5 females with arts credits and one female student without arts credits.



NOTE: *ISTEP+* English 10 passing rates data for 2013 were not available.

## ACT, PSAT, and SAT Assessments

The ACT, PSAT, and SAT tests are aptitude and academic skills tests that enable students, institutions of high education, and other groups to identify students' college and career readiness. Scores from these tests are used frequently by colleges and universities in making admission, scholarship and other financial support, and program entry decisions. Results also are used by organizations that award scholarships, grants, and other forms of support for students in higher education.

The ACT is an achievement test, measuring what a student learned in school. ACT was founded in 1959. Originally, ACT stood for "American College Testing." In 1966 the official name of the organization was shortened to ACT. It is a non-profit organization and it is located

in Iowa City, Iowa. The ACT has up to five components including English, mathematics, reading, science, and an optional writing test. The test is given six times a year and includes 215 multiple-choice items. The test takes approximately three and a half hours to complete. It has an optional writing component that requires an additional thirty minutes to complete. The scale for ACT tests is from 0 to 36. Although there is no recognized “passing score,” a score of between 20 and 23 is considered average, with many colleges and universities admitting students with a score of 18.

The PSAT is a test that is used as a tool to help students with college and career planning. PSAT stands for Preliminary Scholastic Assessment Test. The test is sponsored by the College Board and the National Merit Scholarship Corporation. These scores also are used by the National Merit Scholarship Corporation for screening program entrants and for recognition and scholarships in the National Merit Scholarship Program and National Achievement Scholarship Program. The PSAT measures students’ math, reading, and writing skills. Typically, students take this test in their sophomore or junior year in school, although some take it earlier. Results from the test enable students to identify academic skills they need to work on in order to ready themselves for college entrance exams such as the SAT or ACT tests. PSAT scores also frequently are used to qualify for scholarship and other recognition. Typically, the PSAT is used as a practice test in preparation for taking the SAT test, because both tests have the same type of questions and are given under the same timed conditions.

The SAT is owned, published and developed by the College Board, a nonprofit organization. The test was developed and began in 1926. The test was formerly owned by the Educational Testing Service (ETS), which still administers the test. It was first called the

Scholastic Aptitude Test, but later was changed to be called the Scholastic Assessment Test. The SAT is an aptitude test that measures reasoning and verbal abilities. In 2013 over 1.6 million high school students took the SAT. The test includes assessment of critical reading, mathematics, and writing. It is a timed test that is given under uniform testing conditions and implementation protocols. Possible scores range from 200 to 800 on each of the three sections resulting in a range of 600 to 2400 points. The mean score for each section is 500 with a standard deviation of 100. Over the years the SAT has undergone numerous revisions to increase its difficulty or in response to charges of ambiguity, bias, scoring errors, and other content issues.

Scores for the ACT, PSAT, and SAT were provided for analysis in this study. Findings for these tests are reported below.

## **ACT Assessments**

Data for students who took the ACT English, Reading, and Math assessments from 2010 through 2013 were provided for the study. Student data was clustered into two groupings, the first included analysis of all students who took the test for this period and the second for students who had arts credits and those who did not. Analyses in both of these clusters were performed for female and male subgroups. All students who took the ACT assessment took both the Reading and Math tests. The report of findings for both groups follows.

## **ACT Assessment Findings for All Graduates**

The mean score for all students taking the ACT English assessment was 19.85. Females as a group had a mean score of 19.64. Males had a mean score of 20.03. The range of all scores for the ACT English assessment spanned from 16.32 to 22.25. The range of female scores was

from 16.32 in 2013 to 22.25 in 2010. The range of scores for all males was from 18.38 in 2011 to 22.1 in 2012.

The mean score for all students taking the ACT Reading assessment was 21.47. Females had a mean of 21.27 and males had a mean of 21.72. The range of all scores was from 17.29 to 24.25. Females, as a group, had a range from 17.29 in 2013 to 24.25 in 2010. The range of male Reading scores was from 20.47 in 2013 to 23.2 in 2012.

The mean score for all students on the ACT Math assessment was 21.98. For females the mean was 20.55 and for males 20.31. The range of scores for all students was from 17.39 to 24.48. The range of female scores was from 17.39 in 2013 to 23.08 in 2012. The range for male scores was from 21.2 in 2011 to 25.3 in 2012. (See Table 1 below for the full report of means for all students who took the English, Reading, and Math assessments.)

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Table 1

*2010 – 2013, All Graduates, ACT English, Reading, and Math Mean Test Scores*

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	2010	2011	2012	2013	Aggregated Mean
ACT English					
All Students, ACT English	21.53	18.36	21.88	17.58	19.85
All Females, ACT English	22.25	18.34	21.66	16.32	19.64
All Males, ACT English	20.82	18.38	22.1	18.83	20.03
ACT Reading					
All Students, ACT Reading	23.12	21.2	22.68	18.88	21.47
All Females, ACT Reading	24.25	21.37	22.16	17.29	21.27
All Males, ACT Reading	21.99	21.2	23.2	20.47	21.72
ACT Math					
All Students, ACT Math	23.72	20.18	24.19	19.83	21.98
All Females, ACT Math	22.54	19.17	23.08	17.39	20.55
All Males, ACT Math	24.48	21.2	25.3	22.27	20.31

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## ACT Assessment Findings for Graduates with and without Arts Credits

ACT assessment scores were analyzed to identify assessment performances among students with art credits and among those without arts credits. No ACT scores for ACT English, Reading, or Math were reported in 2010 and 2012 for females without arts credits.

The mean for the ACT English assessment for females with arts credits was 21.43 and 13.75 for females without arts credits. The mean for the ACT English assessment for males with arts credits was 22.15 and 16.89 for males without arts credits. Scores ranged from 19.14 to 22.67 for females with arts credits and from 13.5 to 14 for females without arts credits. Males produced a range of from 20 to 23.2 for males with arts credits and from 13.75 to 19.25 for males without arts credits.

The mean for the ACT Reading assessment among females with arts credits was 22.18 and 17.5 among females without arts credits. The mean for the ACT Reading assessment for males with arts credits was 23.36 and 18.83 for males without arts credits. Means ranged from 19.57 to 24.25 for females with arts credits and from 15 to 20 for females without arts credits. Means for males with arts credits ranged from 22.43 to 24.8 and from 17.25 to 20.75 for males without arts credits.

The mean for the ACT Math assessment was 21.93 for females with arts credits and 15.75 for females without math credits. The mean for males with arts credits was 24.80 and 20.56 for males without arts credits. For females with arts credits means ranged from 18.75 to 23.33 and from 15 to 16.5 for females without arts credits. The range of 25.3 to 24.86 was

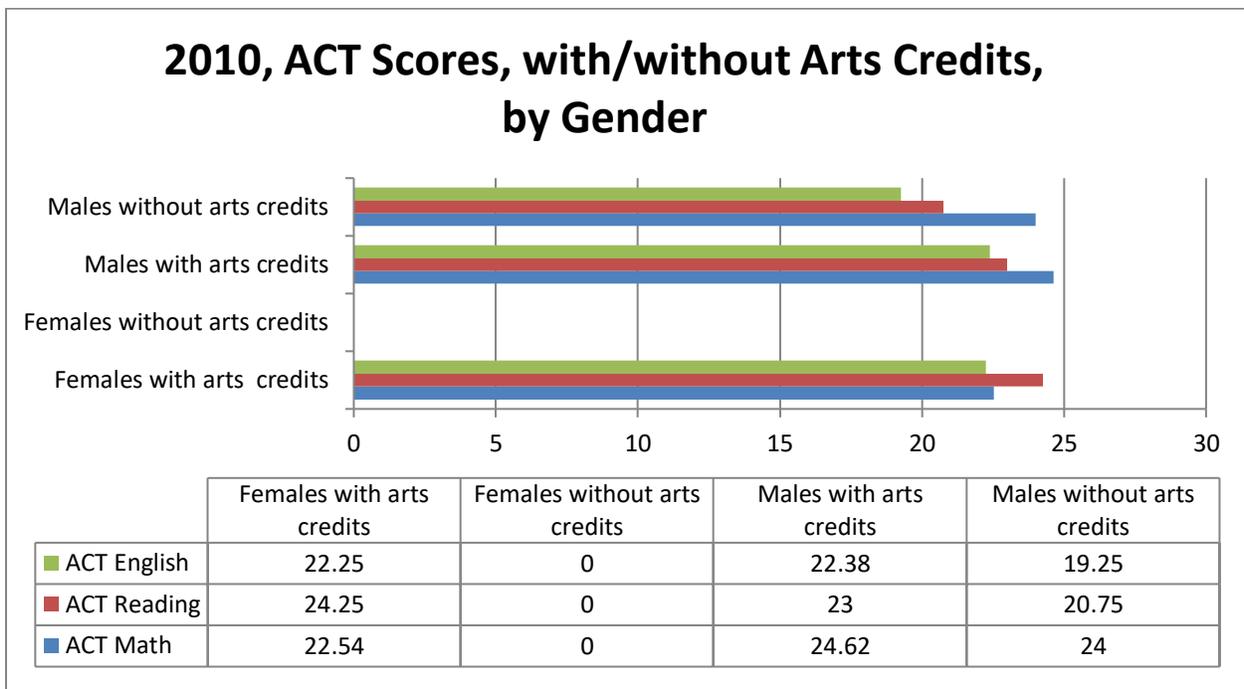
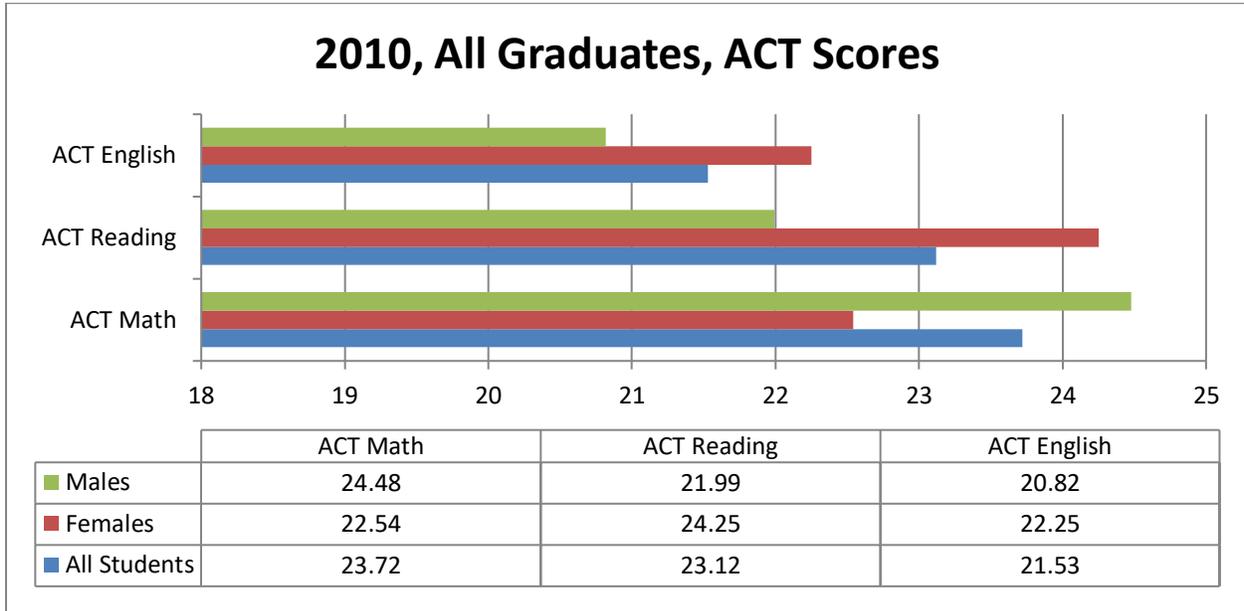
produced for males with arts credits and from 18 to 24 for males without arts credits. (See Table 2 and charts below for the full report of means for students with and without arts credits.)

Table 2

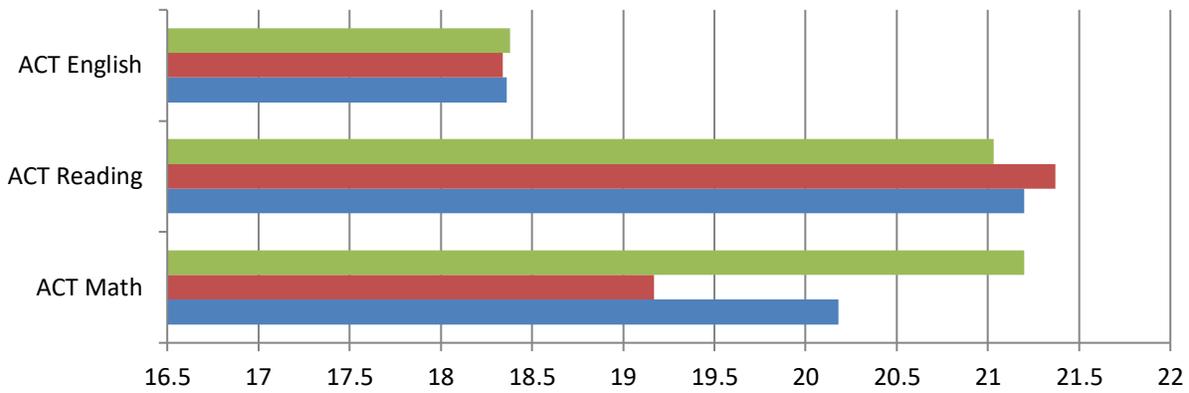
*2010 – 2013, Graduates with/without Arts Credits, ACT English, Reading, and Math Mean Test Scores*

	2010	2011	2012	2013	Aggregated Mean
ACT English					
Females with Arts Credits, ACT English	22.25	22.67	21.66	19.14	21.43
Females without Arts Credits, ACT English	0	14	0	13.5	13.75
Males with Arts Credits, ACT English	22.38	23	23.2	20	22.15
Males without Arts Credits, ACT English	19.25	13.75	0	17.67	16.89
ACT Reading					
Females with Arts Credits, ACT Reading	24.25	22.73	22.16	19.57	22.18
Females without Arts Credits, ACT Reading	0	20	0	15	17.5
Males with Arts Credits, ACT Reading	23	24.8	23.2	22.43	23.36
Males without Arts Credits, ACT Reading	20.75	17.25	0	18.5	18.83
ACT Math					
Females with Arts Credits, ACT Math	22.54	23.33	23.08	18.78	21.93
Females without Arts Credits, ACT Math	0	15	0	16.5	15.75
Males with Arts Credits, ACT Math	24.62	24.4	25.3	24.86	24.80

Males without Arts Credits, ACT Math	24	18	0	19.67	20.56
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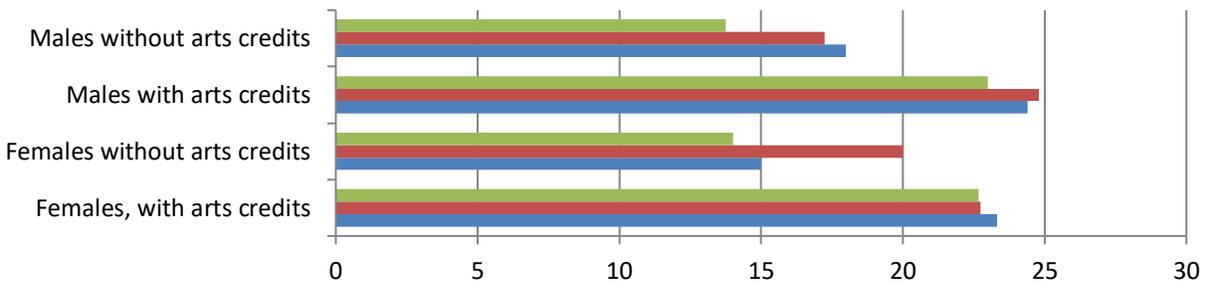


### 2011, All Graduates, ACT Scores

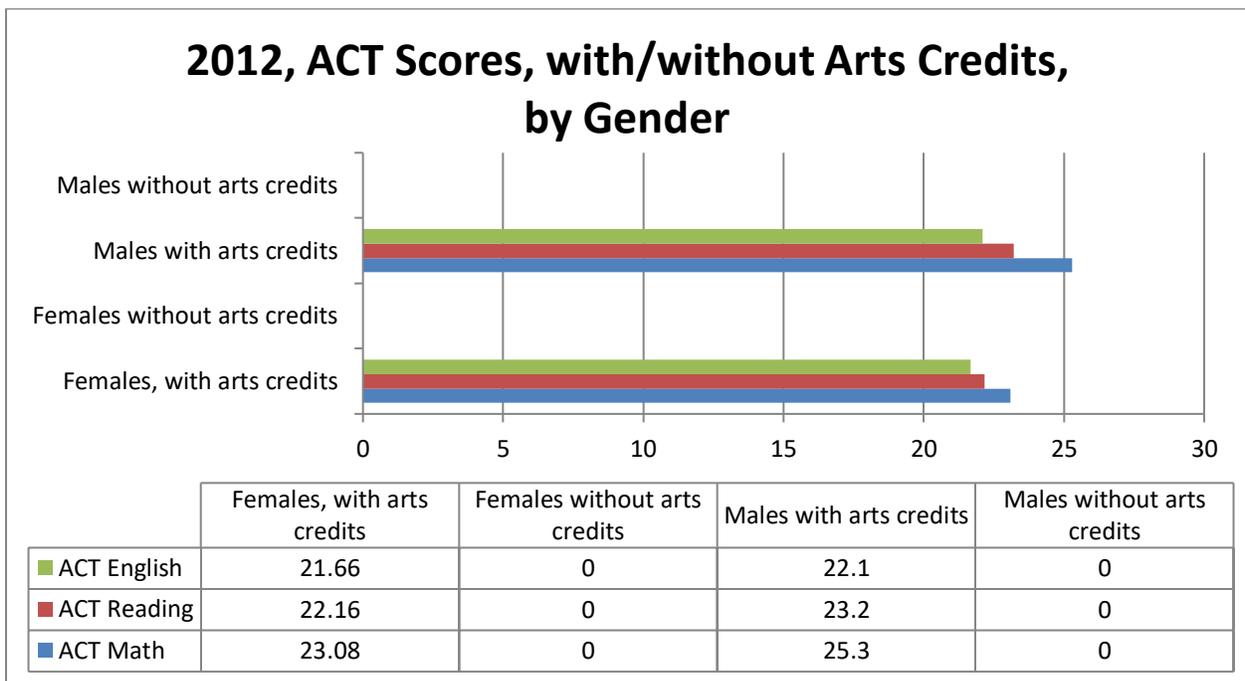
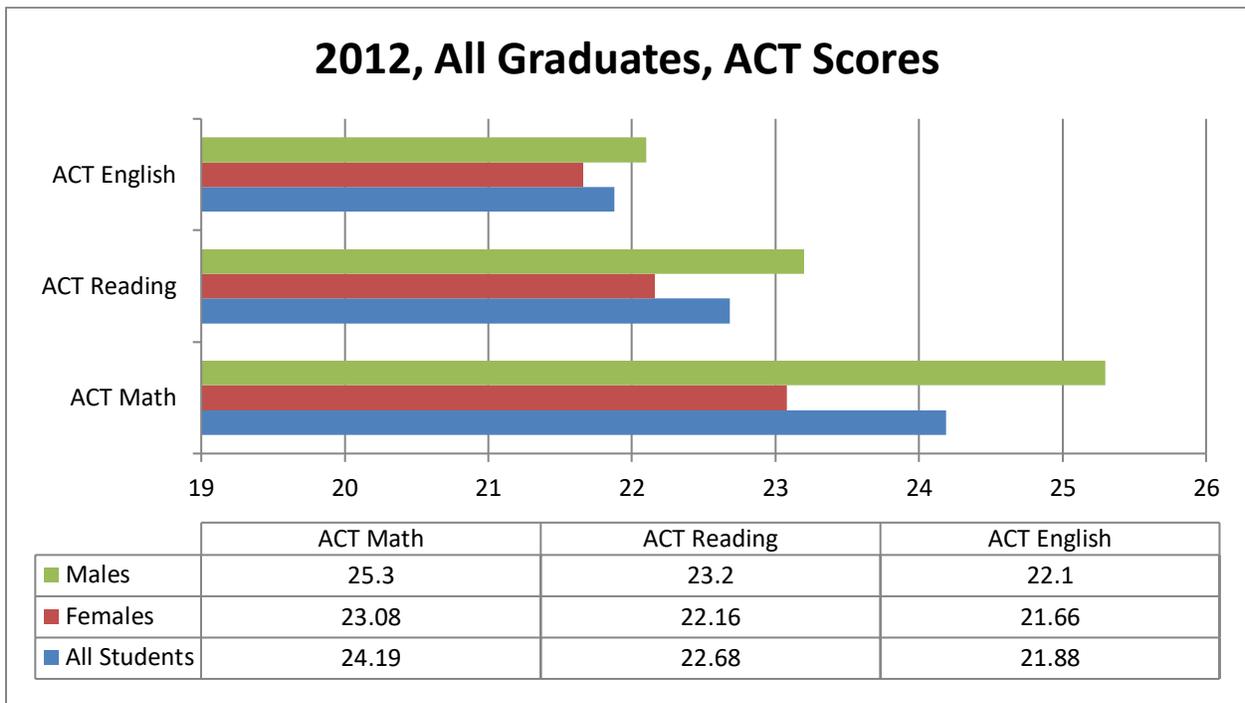


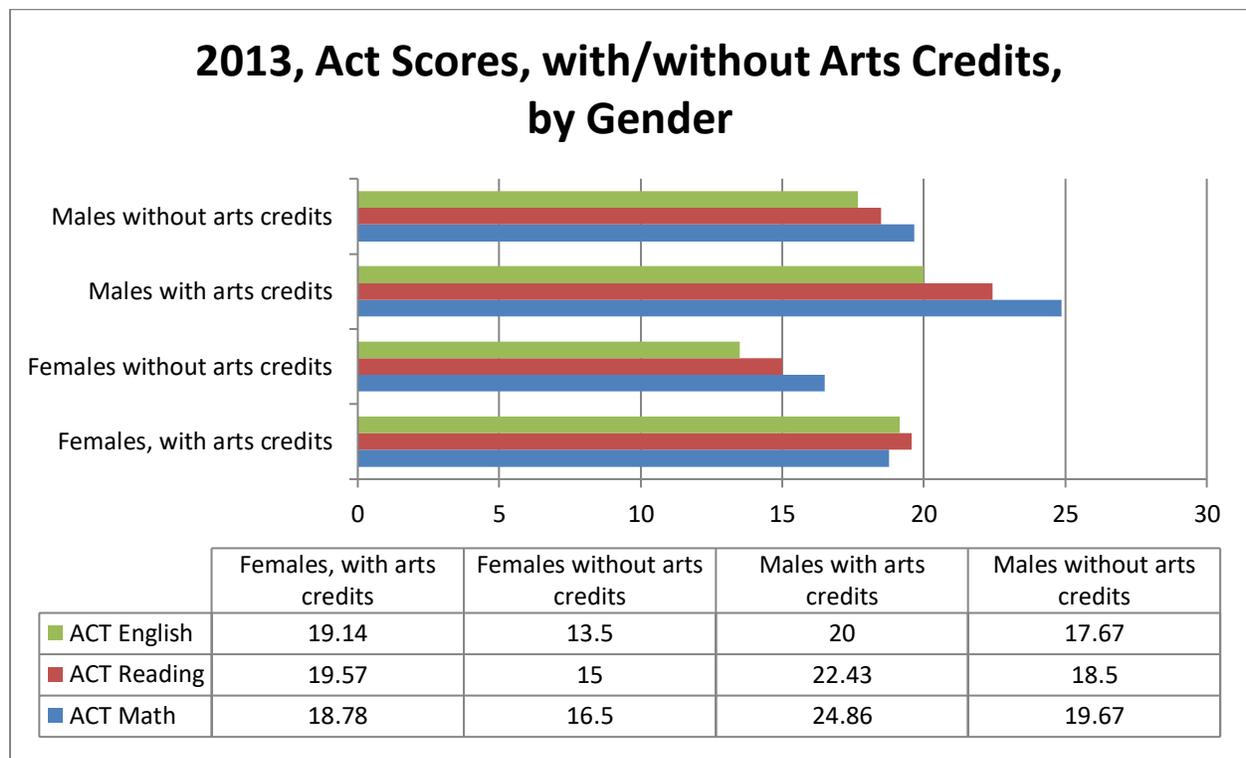
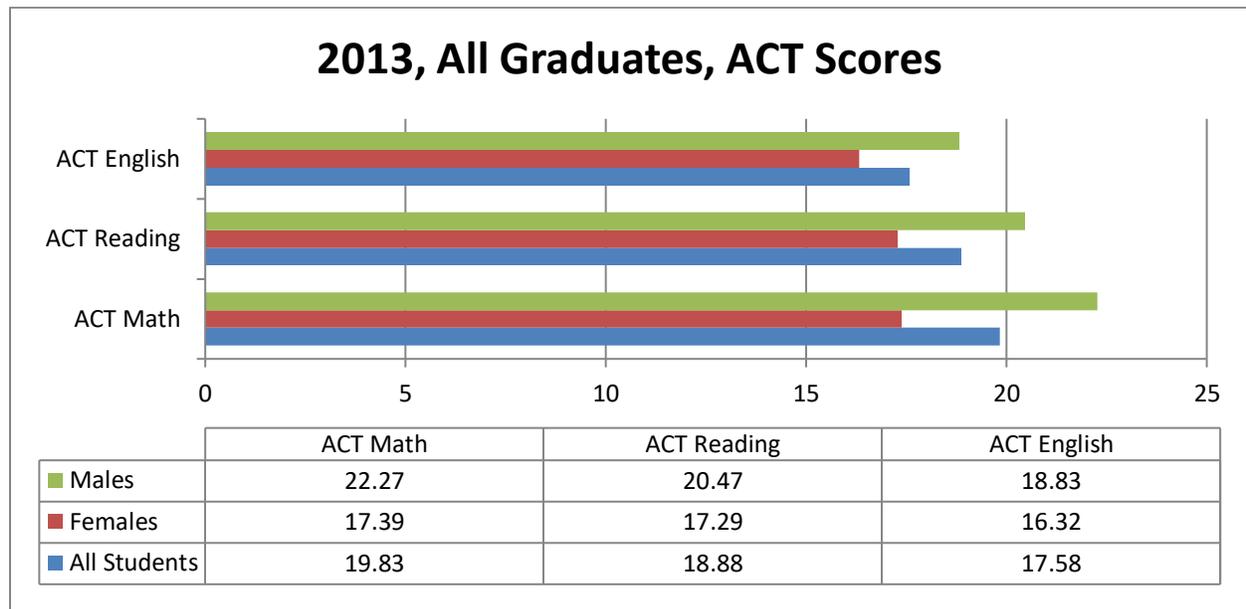
	ACT Math	ACT Reading	ACT English
■ Males	21.2	21.03	18.38
■ Females	19.17	21.37	18.34
■ All Students	20.18	21.2	18.36

### 2011, ACT Scores, with/without Arts Credits, by Gender



	Females, with arts credits	Females without arts credits	Males with arts credits	Males without arts credits
■ ACT English	22.67	14	23	13.75
■ ACT Reading	22.73	20	24.8	17.25
■ ACT Math	23.33	15	24.4	18





## PSAT Assessments

Student performance data from 2010 through 2013 for the PSAT Reading and Math assessments were provided for analysis in this study. As with the ACT data, PSAT data were clustered into two groupings, consisting of a group for all students and a second set of subgroups for students who had arts credits and for those who did not. Both groups were clustered additionally into female and male subgroups. The report of findings is included below.

### PSAT Assessment Findings for All Graduates

For all students taking the PSAT Reading assessment, the aggregated mean was 45.84 with a mean of 44.51 for all females and a mean of 45.91 for all males. The range of means among all students included 43.85 in 2013 to 49.23 in 2011. For females the range was 41.97 in 2010 to 47.73 in 2011. Among males the range was from 44.59 in 2013 to 46.94 in 2012.

The mean score for all students taking the PSAT assessment in math was 48.24 and 46.96 for all females and with 49.55 for all males. The range of scores was from 43.85 to 49.23. The range for female students was from 40.94 in 2013 to 53.63 in 2011. For males the range was from 46.95 in 2011 to 52.79 in 2010. (See Table 3 below for the full report of means.)

Table 3

*2010 – 2013, All Graduates, PSAT Reading, and Math Mean Test Scores*

	2010	2011	2012	2013	Aggregated Mean
<b>PSAT Reading</b>					
All Students , PSAT Reading	44.18	49.23	46.08	43.85	45.84
All Females, PSAT Reading	41.97	47.73	45.22	43.12	44.51
All Males, PSAT Reading	46.38	45.73	46.94	44.59	45.91
<b>PSAT Math</b>					
All Students, PSAT Math	50.09	50.29	47.5	45.09	48.24
All Females, PSAT Math	47.39	53.63	45.78	40.94	46.96
All Males, PSAT Math	52.79	46.95	49.23	49.24	49.55

### PSAT Assessment Findings for Graduates with and without Arts Credits

PSAT assessment scores were analyzed to identify assessment performances among students with arts credits and among those without arts credits. This analysis also was grouped by gender.

Females with arts credits scored a mean of 46.56 on the PSAT Reading assessment. Females without arts credit scored a mean of 43.21. Males with arts credits scored a mean of 49.4 on the PSAT Reading assessment, while males without arts credits scored a mean of 42.42. Scores ranged from 45.46 to 48.1 for females without arts credits. Males with arts credits means ranged from 47.43 to 51.55 and males without arts credits means ranged from 41.29 to 44.3.

Females with arts credits produced a mean of 47.78 for the PSAT Math assessment.

Females without arts credits scored a mean of 43.21. The mean for males with arts credits was 52.94 and for males without arts credits the mean was 46.16. Ranges for females with arts credits and for females without arts credits were 45.38 to 49.61 and from 36.5 to 60 respectively. Male ranges included 49.75 to 55.45 and 43 to 51.5 for males with arts credits and for males without arts credits. (See Table 4 for full reports of PSAT means for students with arts credits and for students without arts credits.)

Table 4

*2010 – 2013, All Graduates, with/without Arts Credits, PSAT Reading, and Math Mean Test Scores*

	2010	2011	2012	2013	Aggregated Mean
Females with Arts Credits, PSAT Reading	46.44	45.46	48.1	46.23	46.56
Females without Arts Credits, PSAT Reading	37.5	53	42.33	40	43.21
Males with Arts Credits, PSAT Reading	48.46	50.16	51.55	47.43	49.4
Males without Arts Credits, PSAT Reading	44.3	41.29	42.33	41.75	42.42
Females with Arts Credits, PSAT Math	49.61	47.25	48.88	45.38	47.78
Females without Arts Credits,	45.16	60	41.67	36.5	45.83

PSAT Math					
Males with Arts Credits, PSAT Math	54.07	49.75	55.45	52.47	52.94
Males without Arts Credits, PSAT Math	51.5	44.14	43	46	46.16

## SAT Assessments

Data for students who took the SAT Reading and Math assessments from 2010 through 2013 were provided for the study. Aggregated means were calculated for all students and for students with arts credits and for those without arts credits. For both of these groups analyses were done by gender.

### SAT Assessment Findings for All Graduates

The mean score for all students who took the SAT Reading assessment was 477.26. The mean score for all females for this assessment was 470.28 and the mean for all males was 484.16. The range for all students was from 464.5 to 484.65. The range for all females who took the assessment was from 435.13 to 494.41. The range for all males who took the assessment was from 460.57 to 509.22.

The mean score for all students who took the SAT Math assessment was 481.77 with means of 470.28 and 484.16 for all females and for all males respectively. The range of means for all students who took the assessment was from 467.27 to 507.4. The range for all females who took the assessment was from 401.84 to 533.36. For all males the range was from 453.67 to

569.24. (See Table 5 for full reports of means for all students who took the SAT Reading and Math assessments.)

Table 5

*2010 – 2013, All Graduates, SAT Reading, and Math Mean Test Scores*

	2010	2011	2012	2013	Aggregated Mean
<b>SAT Reading</b>					
All Students , SAT Reading	484.65	483.94	476.04	464.5	477.26
All Females, SAT Reading	460.09	494.41	491.5	435.13	470.28
All Males, SAT Reading	509.22	472.97	460.57	493.86	484.16
<b>SAT Math</b>					
All Students, SAT Math	507.4	501.45	467.27	450.97	481.77
All Females, SAT Math	445.55	533.36	480.88	401.84	465.41
All Males, SAT Math	569.24	469.53	453.67	500.11	504.89

### SAT Assessment Findings for Graduates with and without Arts Credits

A mean score of 497.82 was produced for females with arts credits who took the SAT Reading assessment. Females without arts credits had a mean score of 443. Males with arts credits had a mean score of 522.85 on the SAT Reading assessment and males without arts credits had a mean score of 445.46. Ranges for all females with arts credits and for females without arts credits were from 508.18 to 489.82 and from were from 380 to 500 respectively. Males with arts credits who took the SAT Reading assessment had a range of means from 509.38

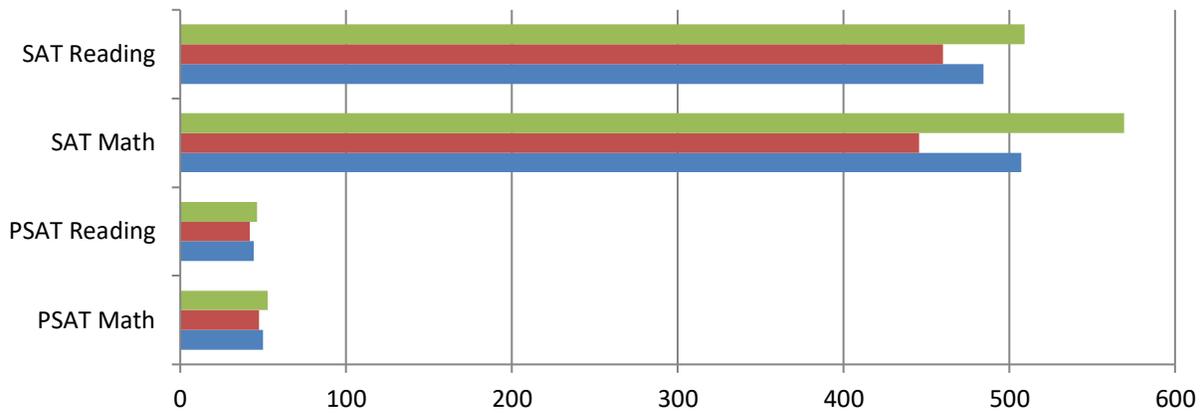
to 536.13, while males without arts credit had range of means from 385 to 496. (See Table 6 and accompanying charts of annual performances for a full report of means for all students who took the PSAT and SAT Reading and Math assessments.)

Table 6

*2010 – 2013, All Graduates, with/without Arts Credits, SAT Reading, and Math Mean Test Scores*

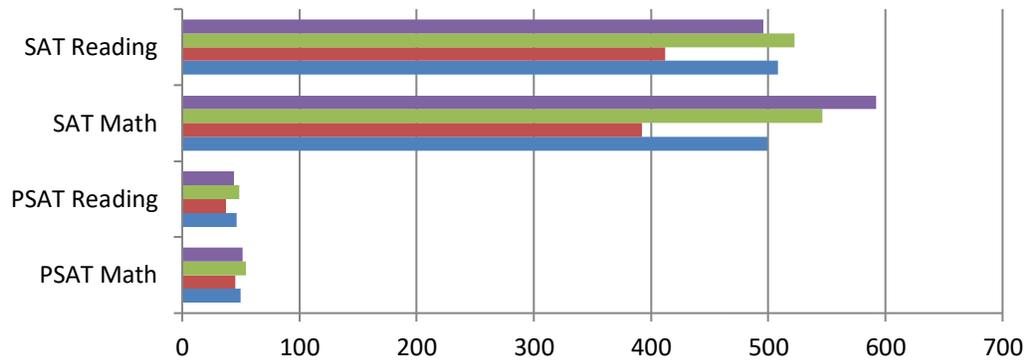
	2010	2011	2012	2013	Aggregated Mean
Females with Arts Credits, SAT Reading	508.18	489.82	503	490.26	497.82
Females without Arts Credits, SAT Reading	412	500	480	380	443
Males with Arts Credits, SAT Reading	522.43	523.44	536.13	509.38	522.85
Males without Arts Credits, SAT Reading	496	422.5	385	478.33	445.46
Females with Arts Credits, SAT Math	499.09	486.72	501.75	483.68	492.81
Females without Arts Credits, SAT Math	392	580	460	320	438
Males with Arts Credits, SAT Math	546.48	521.56	562.34	541.88	543.07
Males without Arts Credits, SAT Math	592	417.5	345	458.33	455.21

### 2010, All Graduates, PSAT and SAT Scores



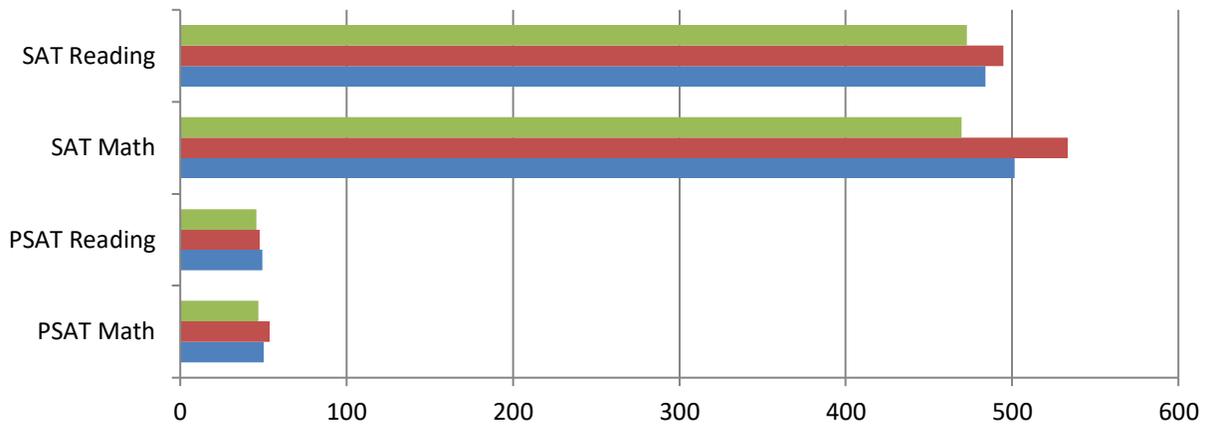
	PSAT Math	PSAT Reading	SAT Math	SAT Reading
■ Males	52.79	46.38	569.24	509.22
■ Females	47.39	41.97	445.55	460.09
■ All Students	50.09	44.18	507.4	484.65

### 2010, PSAT and SAT Scores, with/without Arts Credits, by Gender



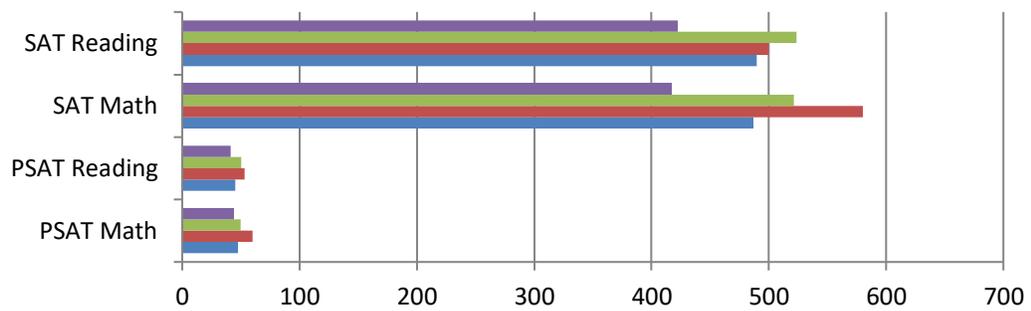
	PSAT Math	PSAT Reading	SAT Math	SAT Reading
■ Males without arts credits	51.5	44.3	592	496
■ Males with arts credits	54.07	48.46	546.48	522.43
■ Females without arts credits	45.16	37.5	392	412
■ Females with arts credits	49.61	46.44	499.09	508.18

### 2011, All Graduates, PSAT and SAT Scores



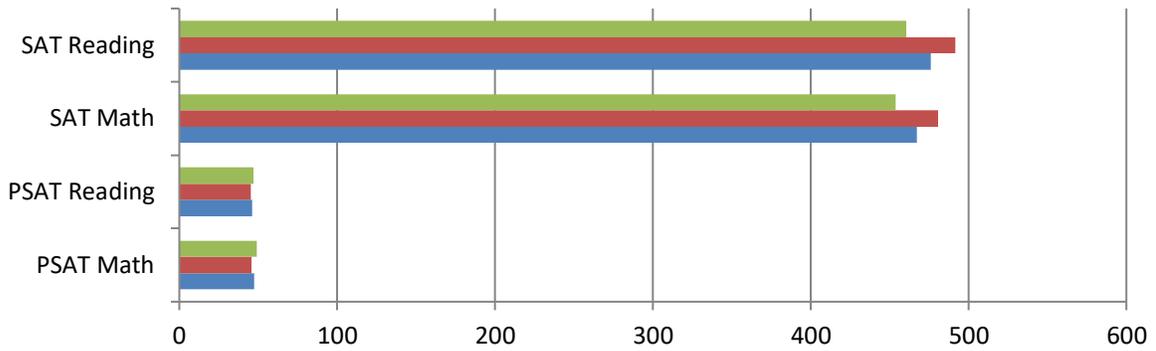
	PSAT Math	PSAT Reading	SAT Math	SAT Reading
■ Males	46.95	45.73	469.53	472.97
■ Females	53.63	47.73	533.36	494.91
■ All Students	50.29	49.23	501.45	483.94

### 2011, PSAT, SAT Scores, with/without Arts Credits, by Gender



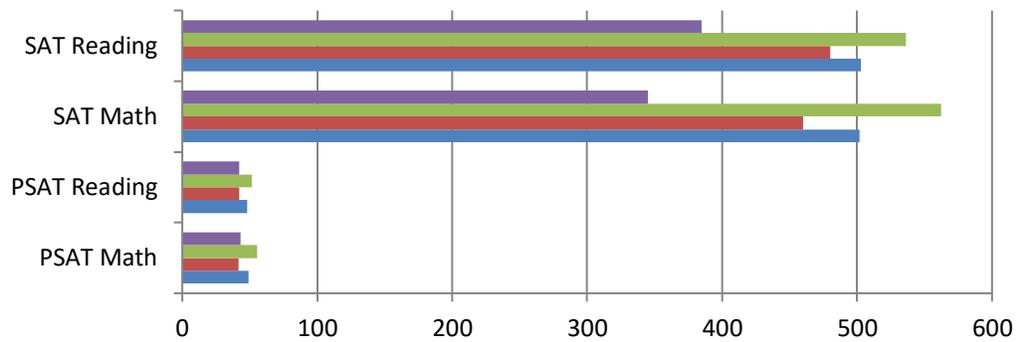
	PSAT Math	PSAT Reading	SAT Math	SAT Reading
■ Males without arts credits	44.14	41.29	417.5	422.5
■ Males with arts credits	49.75	50.16	521.56	523.44
■ Females without arts credits	60	53	580	500
■ Females, with arts credits	47.25	45.46	486.72	489.82

### 2012, All Graduates, PSAT and SAT Scores



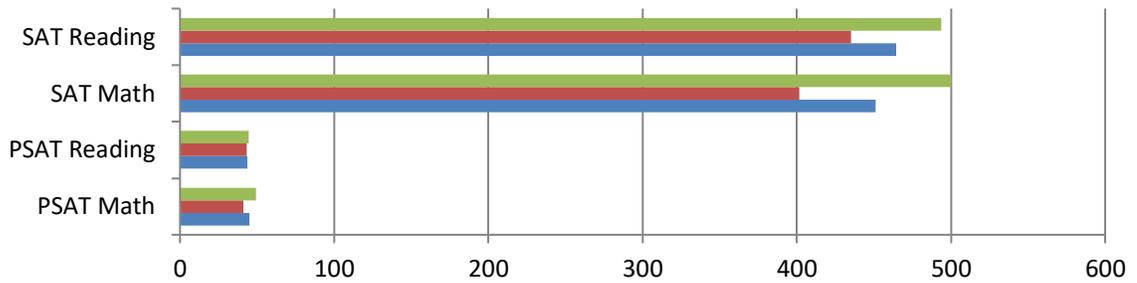
	PSAT Math	PSAT Reading	SAT Math	SAT Reading
Male Students	49.23	46.94	453.67	460.57
Female Students	45.78	45.22	480.88	491.5
All Students	47.5	46.08	467.27	476.04

### 2012, PSAT and SAT Scores, with/without Arts Credits, by Gender



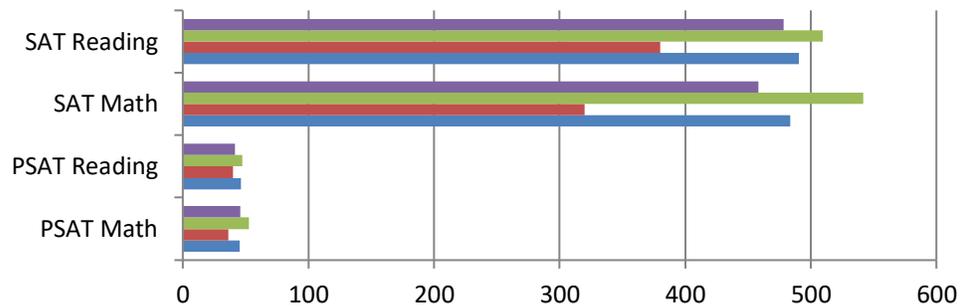
	PSAT Math	PSAT Reading	SAT Math	SAT Reading
Males without arts credits	43	42.33	345	385
Males with arts credits	55.45	51.55	562.34	536.13
Females without arts credits	41.67	42.33	460	480
Females, with arts credits	48.88	48.1	501.75	503

### 2013, All Graduates, PSAT and SAT Scores



	PSAT Math	PSAT Reading	SAT Math	SAT Reading
Male Students	49.24	44.59	500.11	493.86
Female Students	40.94	43.12	401.84	435.13
All Students	45.09	43.85	450.97	464.5

### 2013, PSAT and SAT Scores, with/without Arts Credits, by Gender



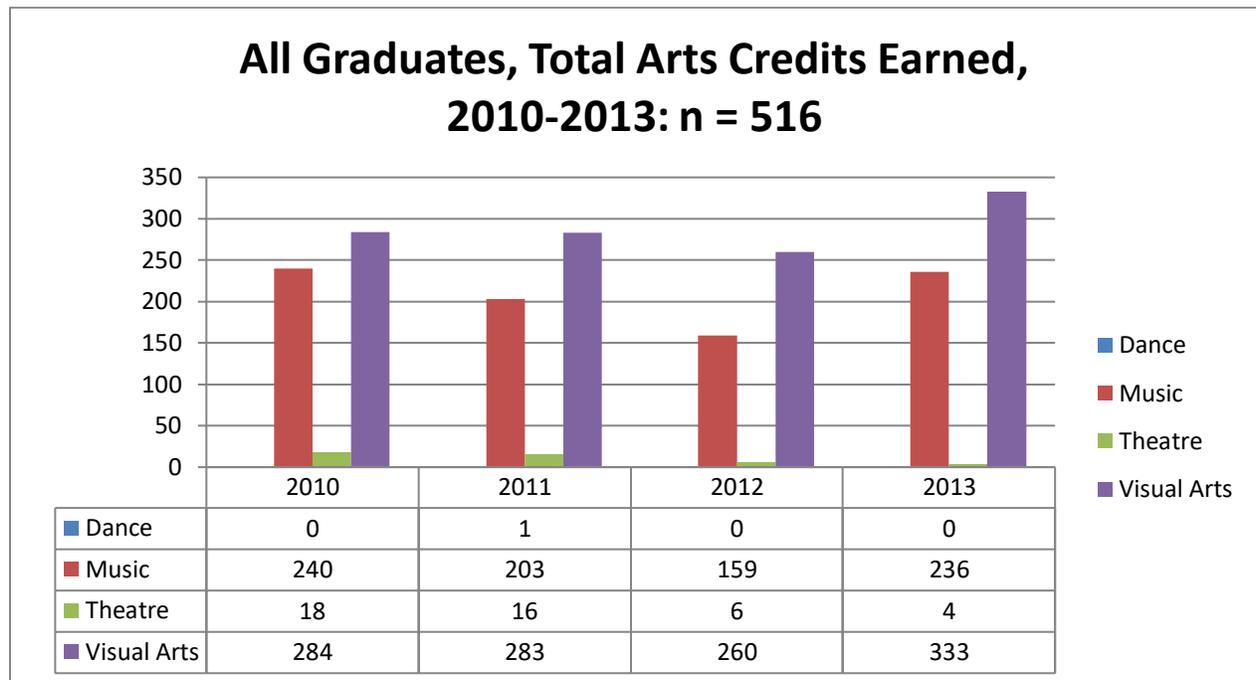
	PSAT Math	PSAT Reading	SAT Math	SAT Reading
Males without arts credits	46	41.75	458.33	478.33
Males with arts credits	52.47	47.43	541.88	509.38
Females without arts credits	36.5	40	320	380
Females, with arts credits	45.38	46.23	483.68	490.26

## Arts Credits Earned

Arts courses are not required for graduation in Indiana, unless students receive an honors diploma. For the honors diploma two arts credits are required. Art course taking patterns can be deduced from analyzing numbers of credits earned by students within each of the arts disciplines. Analyses of student transcripts produced profiles of arts courses taken and numbers of credits earned for these courses.

A total of 516 students or 77% of all students enrolled between 2010 and 2013 took arts courses. Of all students taking arts education courses, 58% were female and 41% were male. The annual range for all students taking arts education courses was from 142 to 115 students.

A total of 2,024 arts credits were earned between 2010 and 2013. In Dance a single credit was earned followed by 819 credits in Music, 44 credits in Theatre, and 1,160 credits in Visual Arts. In Music the range of credit hours was from 159 in 2012 to 240 in 2010. In Theatre the range of course hours was from four in 2013 to 18 in 2010. In Visual Arts the range of credit hours earned was from 260 in 2012 to 333 in 2013. Reports of individual course offerings and credits received in them follows below.



### Dance Credits Earned

No dance courses are offered or listed in the *Crawfordsville High School Curriculum Guide*. However, credit was given to a single student in 2011 who attended a local dance studio for instruction.

Instruction in dance is provided in the community. A number of private dance studios and the local community centers offer dance instruction programming throughout the calendar year for fees. Dance is included as part of the physical education curriculum in the elementary and middle schools.

## Music Credits Earned

In Music a total of 819 credits were earned between 2010 and 2013. Music included a total of 13 course offerings with five courses in instrumental music, four courses in vocal music, and single courses in Music History, Music Theatre, Music Theory (CR), and Music Theory I/S.

The lowest number of Music credits earned between 2010 and 2013 was for students graduating at the end of the 2012 academic year with 161 credits. The highest number of Music credits earned was for students who graduated in 2010 with 240 credits. Courses with highest total credits between 2010 and 2013 include Intermediate Chorus with 266 credits, Advanced Chorus with 252 credits, and Bands-Winds with 239 credits awarded.

Courses with the highest annual credits awarded include Intermediate Chorus with 92 credits in 2011 and 76 credits in 2010, Advanced Chorus with 79 credits in 2010 and 74 credits in 2013, and Band-Winds with 63 credits in 2010, 2012, and 2013. Courses with lowest annual credits awarded include Music History and Appreciation (3 credits), Band (2 credits), and Music Theatre (1 credit). (See Table 7 for additional findings about Music courses offered and credits earned.)

Table 7

*2010-2013 Music Courses and Credits Earned*

	2010	2011	2012	2013	Total Credits
Band	0	2	0	0	2
Band- Percussion	6	8	6	0	20
Band-Winds	63	50	63	63	239
Choral Ensemble	10	0	0	0	10
Advanced Chorus	79	45	54	74	252
Intermediate Chorus	76	92	31	67	266
Music History and Appreciation	1	0	1	1	3
Music Theater	1	0	0	0	1
Music Theory (CR)	0	5	3	4	12
Music Theory I/S	0	1	3	2	6
Orchestra	4	0	0	0	4
Piano and Electronic Keyboard	0	0	0	2	2
Vocal Jazz	0	0	0	2	2
Total	240	203	161	215	819

### Theatre Credits Earned

In Theatre a total of 44 credits were earned by graduates between 2010 and 2013. Course offerings consist of two courses including, Theatre Arts and Theatre Production. The lowest

number of Theatre credits earned was for students graduating in 2013 with 4 credits. The highest number of Theatre credits was earned by students who graduated in 2010, when 18 credits were earned.

Theatre Production had the highest annual number of Theatre credits earned with 18 in 2010 and 16 in 2011. (See Table 8 for additional findings about Theatre courses offered and credits earned.)

Additional instruction in theatre is included in productions offered by the local civic theatre which sponsors several productions of plays with local participants serving in all aspects of producing and performing theatrical works. Occasionally, the local community centers offer summer theatre experiences for students.

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Table 8

*2010-2013, Theatre Courses and Credits Earned*

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	2010	2011	2012	2013	Total Credits
Theatre Arts	0	1	0	0	1
Theatre Production	18	15	6	4	43
Total	18	16	6	4	44

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## Visual Arts Credits Earned

In Visual Arts a total of 1,160 credits were earned between 2010 and 2013. Course offerings in Visual Arts included a total of 28 courses with four courses offered in Photography, three courses in Art History, two courses each in Ceramics, Drawing, 2-D Art, 3-D Art, Jewelry, Media Arts, and Sculpture, and single courses in 2-D/3-D Art, Painting, Printmaking, and Studio Art.

The lowest number of Visual Arts credits earned between 2010 and 2013 was in 2012 with 260 credits. The highest number of credits was earned in 2013 with 333. Courses with the highest total numbers of credits earned between 2010 and 2013 were Introduction to 2-D Art with 175 credits, Introduction to 3-D Art with 148 credits, Introduction to 2-D and 3D Art with 111 credits, and Photography I with 109 credits. Courses with the lowest credits earned between 2010 and 2013 were Art History (3 credits), Art History AP, Digital Design II, and Sculpture II (2 credits each).

Courses with the highest annual credits included Introduction to 2-D Art with 63 credits earned by graduates in 2013, Introduction to 3-D Art with 55 credits earned by graduates in 2011 and 51 credits in 2013, and Photography I with 44 credits earned in 2013 and 37 credits earned in 2012. Courses with the fewest annual credits earned by graduates include Art History (1 credit) in 2012, Ceramics II (1 credit) in 2012, Introduction to 3-D Art (1 credit) in 2010, Media Arts (1 credit each) for 2011 and 2012, and Media Arts II (1 credit) in 2011. (See Table 9 for additional findings about Visual Arts courses offered and credits earned.)

Table 9

*2010-2013, Visual Arts Courses and Credits Earned*

	2010	2011	2012	2013	Total Credits Earned
Art History	2	0	1	0	3
Art History (CR)	12	0	13	21	45
Art History AP	0	0	0	2	2
Ceramics I	16	13	17	26	72
Ceramics II	0	13	1	0	14
Computer Graphics	6	0	0	0	6
Digital Design	4	13	12	18	47
Digital Design II	0	2	0	0	2
Drawing I	20	18	10	15	63
Drawing II	10	13	4	7	34
Intro 2-D 3-D Art	104	7	0	0	111
Intro 2-D Art	0	61	51	63	175
Advanced 2-D Art	2	0	2	2	6
Intro 3-D Art	1	55	41	51	148
Advanced 3-D Art	0	0	3	0	3
Jewelry I	10	14	13	19	56
Jewelry II	6	12	4	7	29
Media Arts I	29	1	1	0	31
Media Arts II	10	1	0	0	11
Painting	2	0	4	4	10
Photography I	6	22	37	44	109
Photography II	2	15	20	24	61

Photography III	5	0	6	8	19
Photography IV	4	0	6	7	17
Printmaking	10	13	9	7	39
Sculpture I	11	4	3	3	21
Sculpture II	2	0	0	0	2
Studio Art	10	4	4	5	23
Total	284	283	260	333	1,160

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## Types of Diplomas Earned

The Indiana State Board of Education adopted course and credit requirements for earning a high school diploma. The newest set of requirements went into effect for students who entered high school in the fall of 2012 (Class of 2016 and below). Under current requirements, students have the option of earning four diploma types:

- General;
- Core 40;
- Core 40 with Academic Honors (AHD); or
- Core 40 with Technical Honors (THD).

The Indiana General Assembly made completion of Core 40 a graduation requirement for all students beginning with those who entered high school in the fall of 2007. The legislation includes an opt-out provision for parents who determine their students could receive a greater benefit from the General Diploma. The legislation also made Core 40 a minimum college admission requirement for the state's public four-year universities beginning in the fall of 2011. Although arts credits are not required for Core 40 diplomas, up to 5 arts credits may be added

under the Flex Credit requirement or up to 6 credits under the Electives requirement. Core 40 graduation requirements posted on the Indiana Department of Education's website include the following:

## Indiana General High School Diploma

**The completion of Core 40 is an Indiana graduation requirement. Indiana's Core 40 curriculum provides the academic foundation all students need to succeed in college and the workforce.**

**To graduate with less than Core 40, the following formal opt-out process must be completed:**

- The student, the student's parent/guardian, and the student's counselor (or another staff member who assists students in course selection) must meet to discuss the student's progress.
- 
- The student's parent/guardian determines whether the student will achieve greater educational benefits by completing the general curriculum or the Core 40 curriculum.
- If the decision is made to opt-out of Core 40, the student is required to complete the course and credit requirements for a general diploma and the career/academic sequence the student will pursue is determined.

**English/Language Arts** **8 credits**  
Credits must include literature, composition and speech

**Mathematics** **4 credits**  
2 credits: Algebra I or Integrated Mathematics I  
2 credits: Any math course  
***General diploma students are required to earn 2 credits in a Math or a Quantitative Reasoning (QR) course during their junior or senior year. QR courses do not count as math credits.***

**Science** **4 credits**  
2 credits: Biology I  
2 credits: Any science course  
***At least one credit must be from a Physical Science or Earth and Space Science course***

**Social Studies** **4 credits**  
2 credits: U.S. History  
1 credit: U.S. Government  
1 credit: Any social studies course

**Physical Education** **2 credits**

**Health and Wellness** **1 credit**

**College and Career Pathway Courses** **6 credits**  
Selecting electives in a deliberate manner to take full

advantage of college and career exploration and preparation opportunities

**Flex Credit**

**5 credits**

Flex Credits must come from one of the following:

- Additional elective courses in a College and Career Pathway
- Courses involving workplace learning such as Cooperative Education or Internship courses
- High school/college dual credit courses
- Additional courses in Language Arts, Social Studies, Mathematics, Science, World Languages or Fine Arts

**Electives**

**6 credits**

Specifies the minimum number of electives required by the state. High school schedules provide time for many more elective credits during the high school years.

(Indiana Department of Education [www.doe.in.gov/achievement/curriculum/indianas-diplomas-requirements](http://www.doe.in.gov/achievement/curriculum/indianas-diplomas-requirements). Retrieved 4-15-15)

Additional requirements for the Core 40 Academic Honors and Core 40 Technical

Honors diplomas are included in the Crawfordsville High School Student Handbook include the following:

**Core 40 with Academic Honors Diploma**

- If a student chooses to use the SAT option to fulfill the Academic Honors requirements, the score must include the written section of the test. A student must achieve a composite score of 1750 and no less than 530 on each section.
- If a student chooses to use the ACT option to fulfill the Academic Honors requirements, the student must complete the written portion of the ACT.

**Core 40 with Technical Honors Diploma**

- To be eligible for a Technical Honors diploma, the student must earn six (6) credits in a college and career pathway. This replaces the previous requirement of eight to ten (8-10) credits in a career-technical program.
- The additional requirements now mirror the Academic Honors requirements but include options for fulfilling the Technical Honors diploma. In addition to earning a minimum score on WorkKeys, a student now has the option of demonstrating proficiency by (1) earning a minimum score on Accuplacer; or (2) earning a minimum score on Compass.

(Crawfordsville Community School Corporation.

(<http://www.cville.k12.in.us/Cville/LinkClick.aspx?fileticket=i9lJtbyDGD0%3d&tabid=54>)

Retrieved 4-15-14.

Although the state requires 40 credit hours for graduation, 43 credit hours are required by CCSC for graduation under the General Diploma and Core 40 requirement. Graduation under the Core 40 with Academic Honors diploma requires 47 credit hours. Below are descriptions of diplomas and course required for each of the diplomas.

### **Academic Diplomas**

#### **General Diploma**

Language Arts	8 credits
Social Studies	4 credits
Mathematics (Algebra 1 or Integrated Math)	4 credits
Science (Biology)	4 credits
Health Education	1 credit
Basic Physical Education (2 1 semester classes)	2 credits
Flex Credits	5 credits
Total Electives	9 credits
Total graduation credits required	43 credits

#### **Core 40 Diploma**

Language Arts (Literature, Composition, and Speech	8 credits
Social Studies (2 U.S. History, Government, Economics,	

2 World History and/or Geography, 2 additional Social Studies credits)	6 credits
Mathematics (Algebra I, Geometry, Alg. II, * All students requirement to take math or physics courses during their junior or senior year)	6 credits
Science (2 Biology and 2 Chemistry, Physics or Integrated chemistry/physics and 2 additional credits from Chemistry, Physics, Earth/Space Science, Bio II, Integrated Health Sciences, Advanced Bio., Adv. Chemistry, Adv. Physics)	6 credits
Health and Education	1 credit
Physical Education (2 1-semester classes)	2 credits
Career Academic Sequence	6 credits
Electives	5 credits
2. 8 credits in courses from the list above or below.	
Foreign language, (French, German, Spanish)	
Art (Art, Drama, Music)	
Computers (Computer Applications, Computer Programming)	
Career Areas (6 credits in sequence from a technical career area)	
3. Choose 6 or more credits from any course at your school.	
Total graduation credits required	43 credits

### **Core 40 with Academic Honors Diploma**

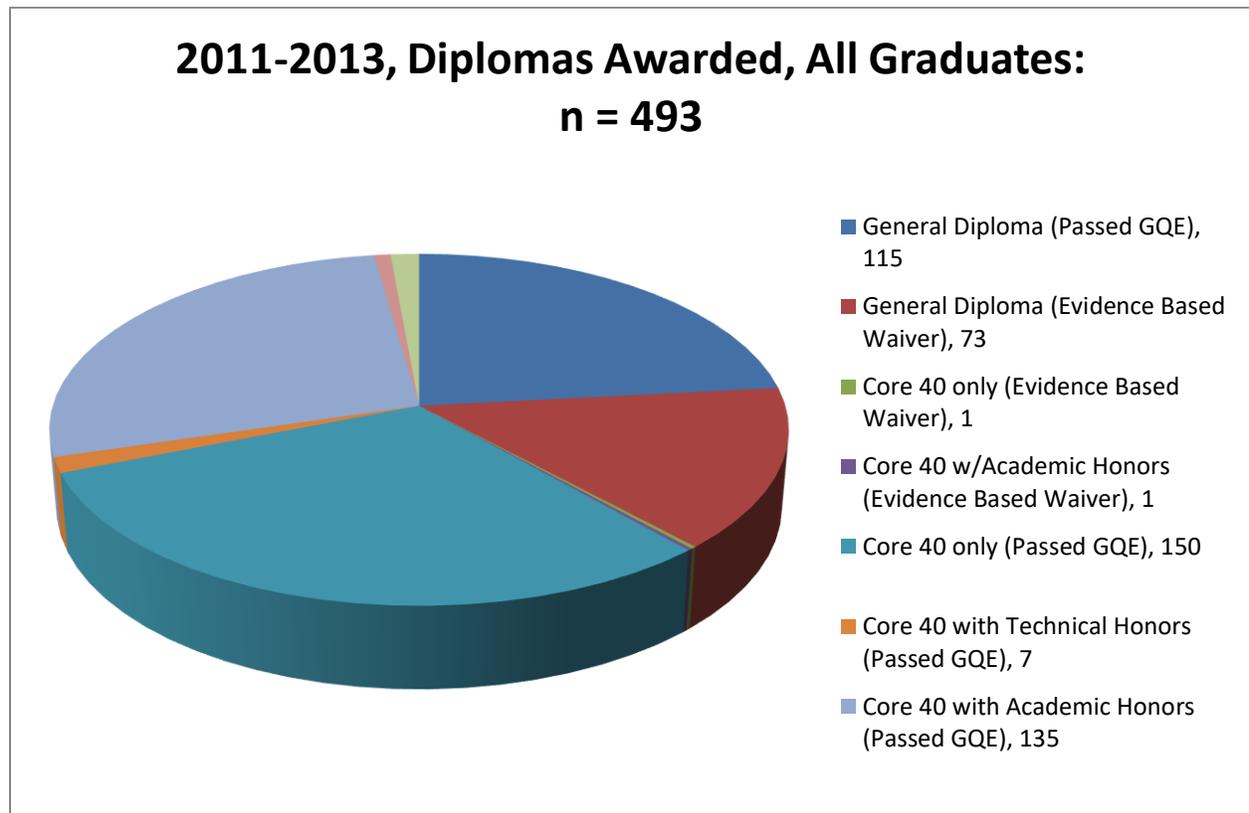
1. Minimum standards require earning 47 credits as described below:
  - a. **English** – 8 credits to include English 11 Academic or English 11 Honors, English 12 Academic or English 12 Honors.
  - b. **Social Studies** – 6 credits to include U.S. History or U.S. History Honors, Government or Government Honors, Economics or Economics Honors. At least two credits in World History/Civilization or 2 credits in Geography/History of the World.
  - c. **Mathematics** – 8 credits to include Algebra I, Geometry or Geometry Honors, Algebra II or Algebra II Honors, Pre-Calculus/Trigonometry or Pre Calculus/Trigonometry Honors, and/or Calculus.
  - d. **Science** – 6 credits to be selected from Biology, Chemistry, Physics, Advanced Chemistry, Advanced Physics, or Advanced Biology. Science credits must include 2 credits in Biology or Biology Honors; 2 credits in Chemistry or 2 credits in Physics, Integrated Chemistry Physics, and 2 credits in Chemistry, Physics, Integrated Health Science, Advanced Biology II, Advanced Chemistry, or Advanced Physics.
  - e. **Foreign Language** – 6 credits in one language or 4 credits in one language and 4 credits in another language.
  - f. **Fine Arts** – 2 credits in Art and/or Music.
  - g. **Health and Wellness** – 1 credit, which is a regular state requirement.
  - h. **Basic Physical Education** – 2 credits (2 semesters), which is a regular state

requirement.

- i. Career Academic Sequence, Flex Credit, and Elective Credit to bring the total to 47 credits.

## Diplomas Earned by All Graduates

Data for diplomas earned for 2010 were not available. Changes in diploma types and data collection procedures that were not employed for this period excluded data collection for that year. Data for types of diplomas earned for the period of 2011 through 2013 were provided. A total of nine types of diplomas were offered and a total of 493 diplomas were awarded during this period. Listing of the diploma types and numbers of each type of diploma awarded are as follows: General Diploma (Passed GQE), 115 awarded; General Diploma (Evidence Based Waiver), 73 awarded; Core 40 only (Evidence Based Waiver), 1 awarded; Core 40 w/Academic Honors (Evidence Based Waiver), 1 awarded; Core 40 only (Passed GQE), 150 awarded; Core 40 with Technical Honors (Passed GQE), 7 awarded; Core 40 with Academic Honors (Passed GQE), 135 awarded; Core 40 w/Academic & Technical Honors (GQE), 4 awarded and Certificate of Completion (IEP program completed), 7 awarded.

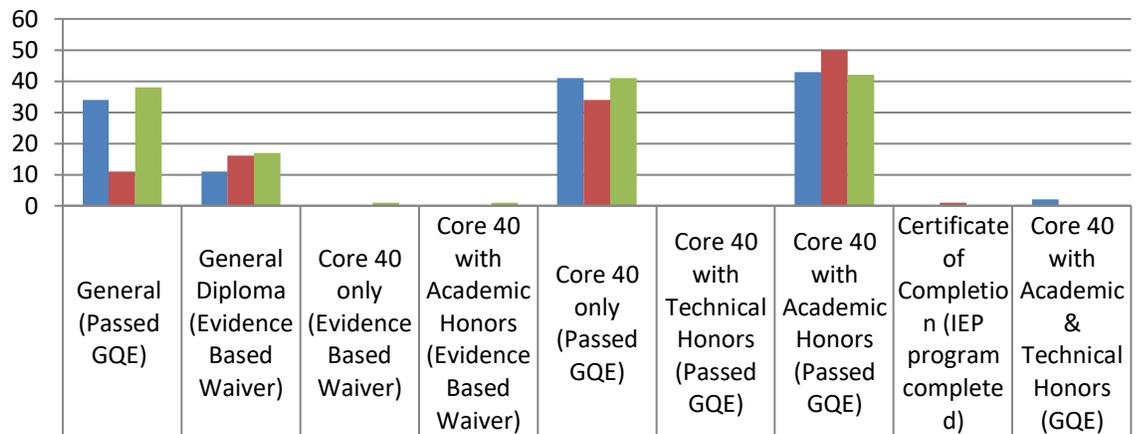


### Diplomas Earned by Graduates with and without Arts Credits

Students with arts credits who graduated from 2011 through 2013 earned diplomas in eight of nine categories in which diplomas are offered, with the exception of Core 40 with Technical Honors, in which no diplomas were earned. Students with arts credits with Core 40 Academic Honors (Passed GQE) diplomas represented 35% of students graduating with arts credits. Students with Core 40 only (passed GQE) represented 30% of students with arts credits and students awarded General (Passed GQE) diplomas represented 22 % of all students graduating with arts credits. Students graduating with diplomas from other categories combined represented the remaining total of 13% of graduates with arts credits.

Students who graduated from 2011 through 2013 without arts credits and who were awarded Core 40 only (Passed GQE) diplomas represented 33% of all students without arts credits. Graduates without arts credits who received the General Diploma (Passed GQE) represented 31% and graduates who received the General Diploma (Evidence Based Waiver) represented 28% of all students without arts credits. Students who graduated with other diplomas represented the remaining 8% of all graduates without arts credits.

### 2011-2013, Types of Diplomas Earned, with Arts Credits: n = 383



■ 2011 With Arts Credits	34	11	0	0	41	0	43	0	2
■ 2012 With Arts Credits	11	16	0	0	34	0	50	1	0
■ 2013 With Arts Credits	38	17	1	1	41	0	42	0	0

## 2011-2013, Types of Diplomas Earned, without Arts Credits: n = 104

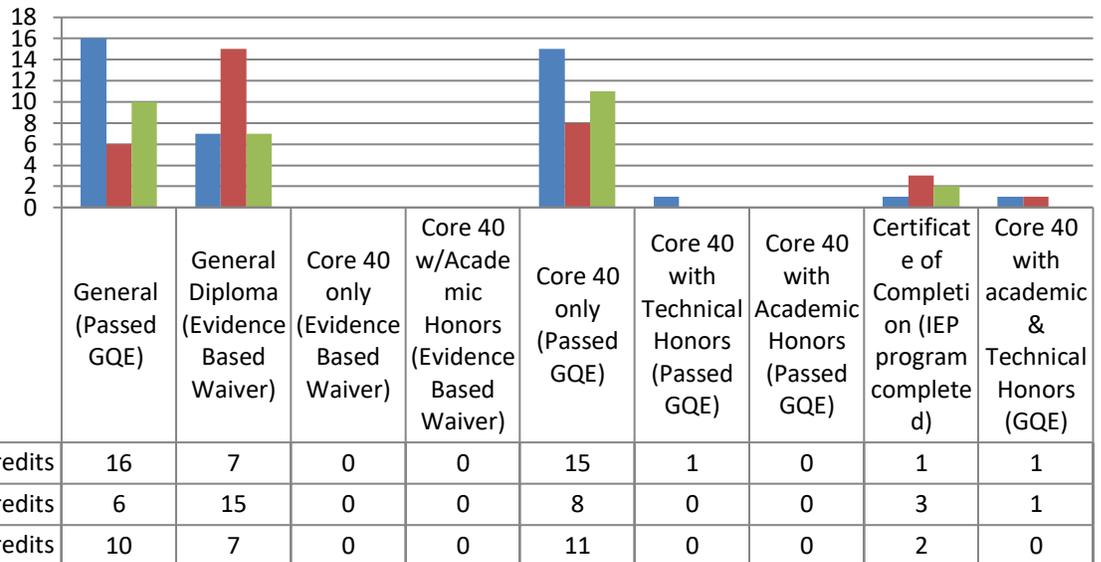


Table 10

*2011-2013, Types and Numbers of Diplomas Awarded to Graduates with/without Arts Credits*

	2011 with Arts Credits	2011 without Arts Credits	2012 with Arts Credits	2012 without Arts Credits	2013 with Arts Credits	2013 without Arts Credits
General (Passed GQE)	34	16	11	6	38	10
General Diploma (Evidence Based Waiver)	11	7	16	15	17	7
Core 40 only (Evidence Based Waiver)	0	0	0	0	1	0

Core 40 w/Academic Honors (Evidence Based Waiver)	0	0	0	0	1	0
Core 40 only (Passed GQE)	41	15	34	8	41	11
Core 40 with Technical Honors (Passed GQE)	0	1	0	0	0	0
Core 40 with Academic Honors (Passed GQE)	43	0	50	0	42	0
Certificate of Completion (IEP program completed)	0	1	1	3	0	2
Core 40 w/Academic & Technical Honors (GQE)	2	1	0	1	0	0

## Post-Graduation Plans

Plans of study followed in secondary schools are intended to prepare graduates for college and careers. Pursuing post-graduate plans may be limited by numbers of factors ranging from practical decisions such as acceptance into institutions of higher education, employment opportunities, financial assets, to personal choices related to the lack of a clear vision or set of

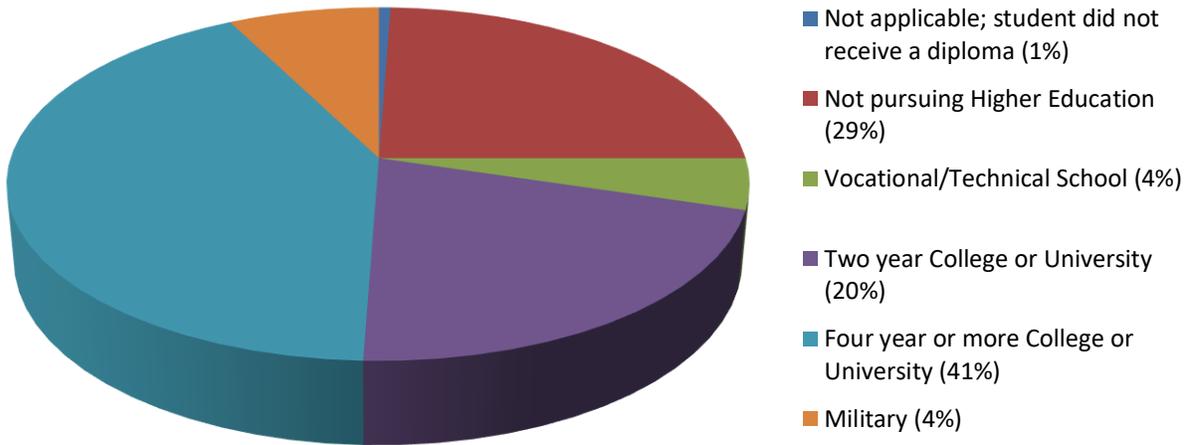
goals to pursue or uncertainty about actions to be taken to enter society upon leaving public schooling or other such factors that may be beyond the control of graduates.

Students were asked what plans they would be pursuing following their graduations. Data were collected beginning with graduates from the 2011 academic year. From the period of 2011 through 2013, a total of 469 responses were collected. These responses were provided for analysis in this study. Responses were grouped into the following categories military, four year or more college or university, two year college or university, vocational or technical school, not pursuing higher education, and not applicable because the student did not receive a diploma. The data also were grouped into two subgroups including those with arts credits and those without arts credits. The following is a report of findings from this analysis.

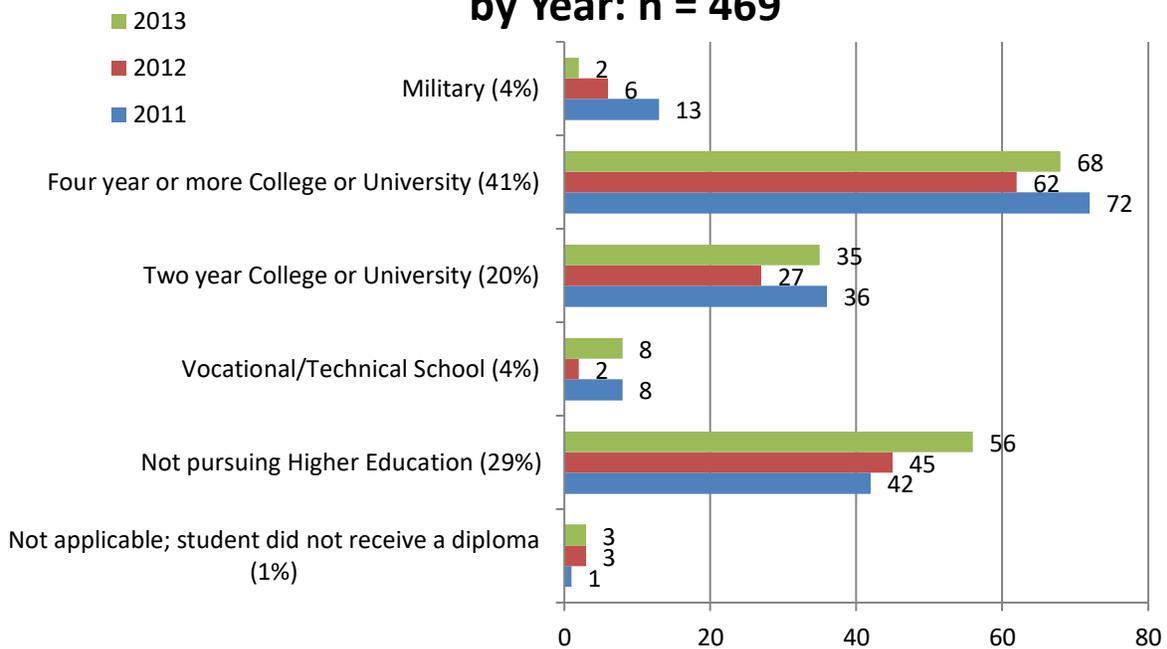
### **Post-Graduation Plans for All Graduates**

Of all graduates between 2011 and 2013, a combined total of 69% of graduates were planning on pursuing additional education with an additional 29% not pursuing higher education and 1% who failed to graduate. Of all graduates, 41% were planning to attend a four year or more college or university followed by 20% planning to attend a two year college or university, and 4% planning to enter the military or a vocational or technical school.

### 2011-2013, Post-Graduate Plans, All Graduates: n = 469



### 2011-2013, Post-Graduate Plans, All Graduates, by Year: n = 469



## **Post-Graduation Plans for Graduates with and without Arts Credits**

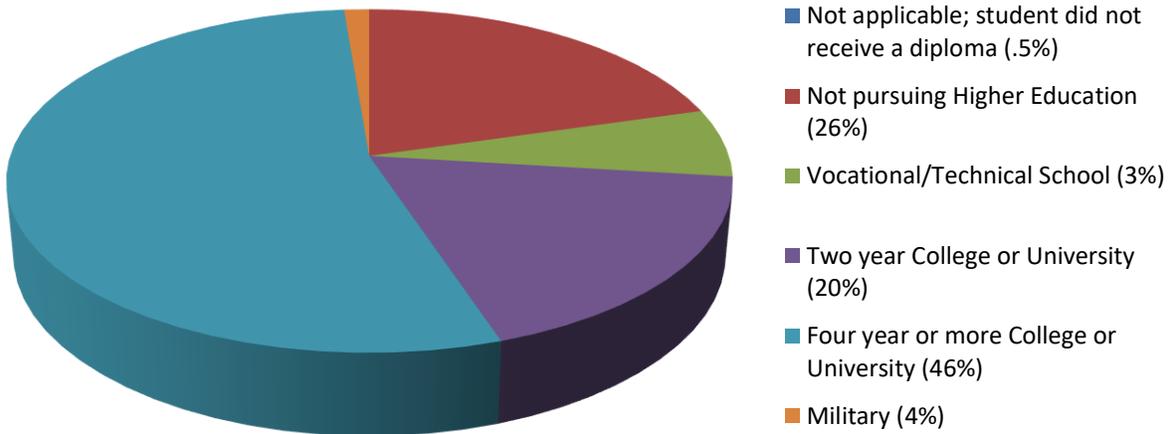
For the period between 2011 and 2013, post-graduate plans were sorted into graduates with arts credits and into those without arts credits. A total of 365 responses were submitted for students with arts credits with 104 responses for those without arts credits.

Of graduates with arts credits, 74% were planning on pursuing additional education in higher education. Of all graduates with arts credits, 46% planned to attend a four year college or university, with 21% planning to attend a two year college or university, 4% planning to enter the military, and 3% planning to attend a vocational or technical school. Of the remaining graduates in this group 26% did not plan to pursue additional education in institutions of higher education.

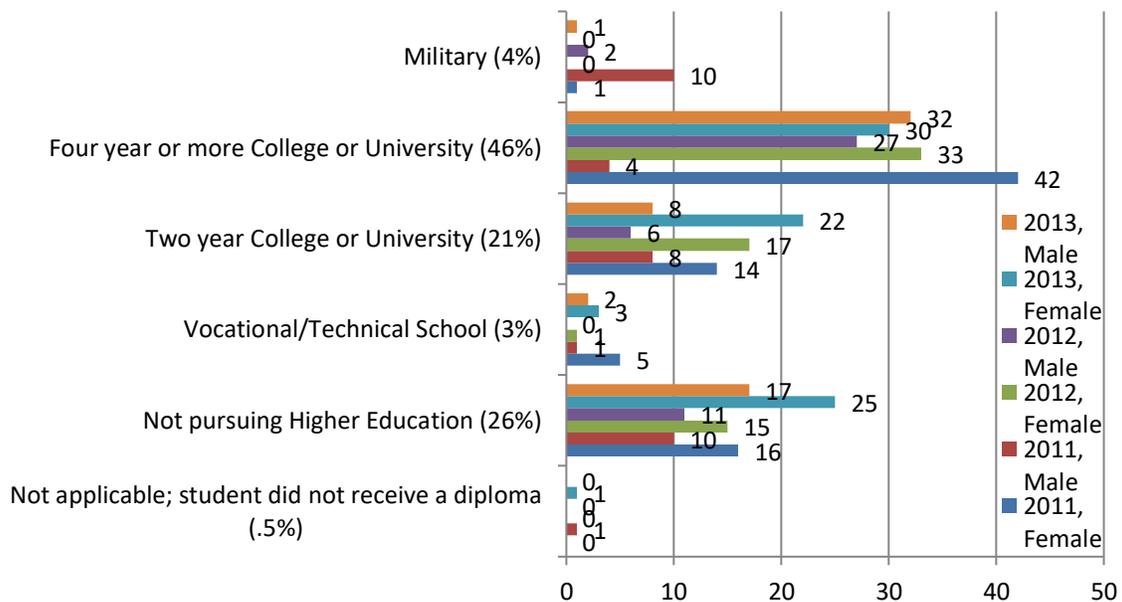
When reviewing graduates with arts credits by gender, it was revealed that of those planning to attend a four year college or university, the highest number of graduates was in the female group who graduated in 2011 with 42, followed by 33 females in 2013, 32 males in 2012, and 27 males in 2012. For graduates planning to attend two year colleges or universities the highest number was for males who graduated in 2013 followed by 17 female graduates in 2012, and 14 female graduates in 2011.

For graduates with arts credits that were not planning to pursue higher education, the highest number was for males in 2013 with 25 graduates. This group was followed by 17 males from 2013 and 16 males from 2011 and 15 females from 2012.

### 2011-2013, Post-Graduate Plans, Graduates with Arts Credits: n = 365



### 2011-2013, Post-Graduate Plans, Graduates with Arts Credits, by Year and by Gender: n = 365

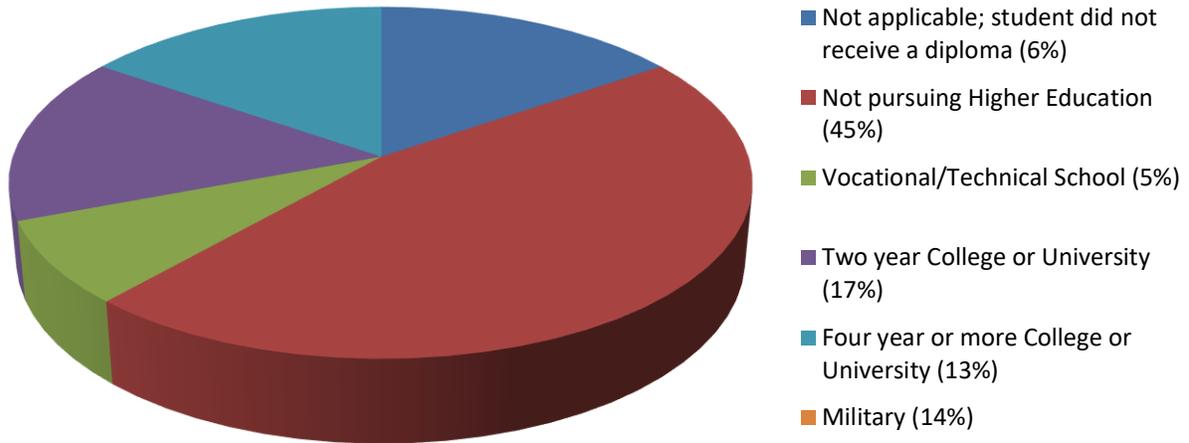


Of graduates without arts credits, 49% planned on pursuing additional education in institutions of higher education. Among all graduates without arts credits, 17% planned to attend a two year college or university, 14% planned to enter the military, 13% planned to attend a four year or more college or university, and 5% planned to attend a vocational or technical school. Of the remaining graduates without arts credits, 45% did not plan to pursue additional education in institutions of higher education. Students who did not graduate represented 6% of graduates without arts credits.

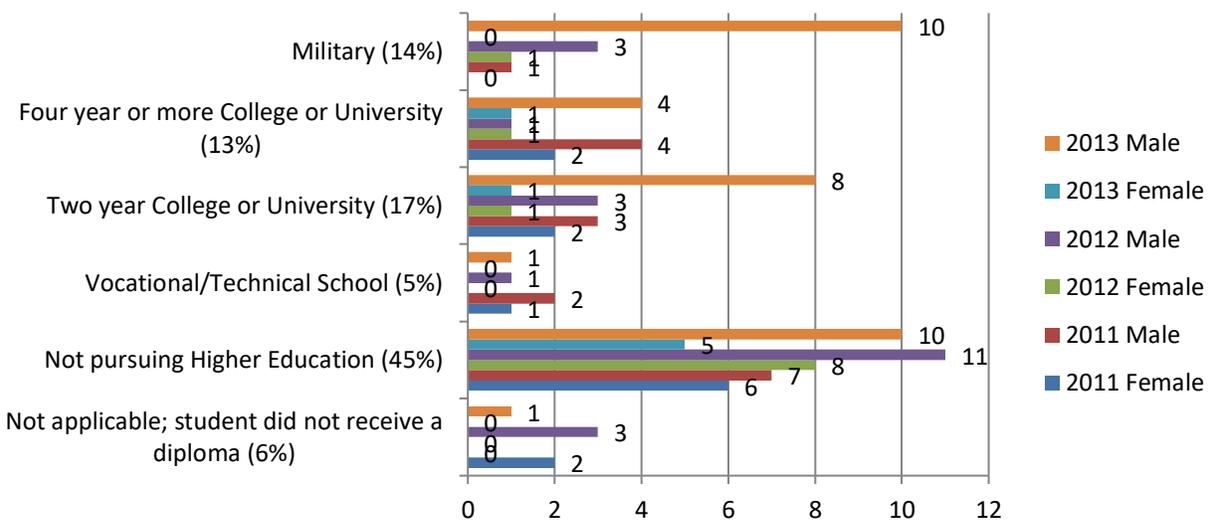
When reviewing graduates without arts credits by gender, it was revealed that of those planning to attend a four year college or university, the highest number of graduates was in the male groups who graduated in 2013 and 2011 with four each, followed by two females who graduated in 2011. For graduates without arts credits planning to attend two year colleges or universities the highest number was for males who graduated in 2013 with 8 graduates followed by 3 males each from 2012 and 2011.

For graduates without arts credits that were not planning to pursue higher education, the highest number was for males in 2012 with 11 graduates. This group was followed by 10 males from 2013, 8 females from 2012, and 7 males from 2011.

### 2011-2013, Post-Graduate Plans, Graduates without Arts Credits: n = 104



### 2011-2013, Post-Graduate Plans, Graduates without Arts Credits, by Year and by Gender: n = 104



## CONCLUSION

The role that arts education plays in the balanced and comprehensive education of all people is vitally important. Students in American schools are actively engaged in arts courses. Although states generally require education in the arts at all instructional levels, students frequently are not required to enroll in arts courses beyond the elementary level. Students often exercise the option of taking arts education courses even when graduation or other program requirements do not always require them to do so. As a result high school curriculum includes a broad offering of arts courses and students continue to graduate with arts credits.

This study compared data from students who graduated with arts credits with data from students who did not graduate with arts credits. Findings from this study suggest that over three-quarters of students (77%) took arts courses while in high school. Of that group over half (58%) were female with many taking multiple arts education courses in the curriculum.

The arts education programs offered a generous array of courses with the most being offered in visual arts (28 courses) followed by those offered in music (13 courses). Of those who earned arts credits, the most credits were earned in visual arts courses with 1,160 credits followed by 819 credits earned in Music courses.

Of students with arts credits, GPAs, ACT, PSAT, SAT, and ECA scores were higher than scores from those who graduated without arts credits. Students with arts credits graduated with Core 40 Honors diplomas and Core 40 diplomas more often than those without arts credits and significantly more of them planned to attend institutions of higher education, including four year

and 2 year institutions of higher education, the military, and vocational or technical schools than those without arts credits.

This study provides a snapshot of one school district that has a record of ongoing support for arts education. It is apparent that students, parents, faculty, and administration in this community and school district appreciate the value of having an education in the arts. Support from the school board and administration has enabled the programs to offer quality education in the visual arts and music. Limited course offerings in Dance and Theatre programs provide room for growth and development. Although performances in the arts programs experienced modest fluctuations, they appear to be stable and viable with some courses in the programs awarding relatively high numbers of credits. With continuing support, these programs will help meet the educational needs of students in each of the arts. The benefits of an education in the arts to the lives of each of the students who graduate from this school district and to the community at large will continue to be significant and of value.

It is essential that studies of additional school districts be made in urban, rural, and suburban settings in order to understand whether findings from this case study may be generalizable to the schools and communities in those settings. Findings from such studies can contribute to enhancing arts education in school districts with arts education programs that may not currently be meeting the arts education needs of their students. Moreover, findings from additional research can be of value in providing insights into identifying the relationships between receiving and education in the arts with academic performances and how such an education contributes to making all Americans more productive while enhancing the quality of their lives and communities.

The arts are a significant aspect of our American identity. They have played a major role in our history as a people and we have created an outstanding artistic heritage that is celebrated around the world. It is of the utmost importance that quality education in the arts be provided to all students in all schools in all communities in order to understand, preserve, and expand this artistic heritage. Having a quality education in the arts is at the core of understanding the role the arts play in our daily lives and in the history of all cultures, times, and people around the world. It is equally important that research about our arts education programs be routinely done to inform us about student learning and performances. Findings from such research can inform decision-making and contribute to shaping goals, priorities, and policies for our schools.

The benefits of an education in the arts will manifest themselves in our economy, culture, and history. Ultimately, the benefit of any education is found in how it is used by individuals after having received it. It is up to those who value education in the arts to be vigilant in promoting arts education and to committing time, efforts, and resources necessary for opening the wonders and benefits of an education in the arts to all people.

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## APPENDIX A: Graduation Requirements

From CHS Student Handbook, p. 4

## SECTION II. CREDITS AND GRADUATION

### Granting Graduation Credits

A predefined amount of credits

will be issued upon completion of a course. In addition, if a student is properly identified as a gifted and talented student in need of acceleration and enrichment, credit may be granted by examination with the approval of the appropriate department coordinator and the principal. Credits may also be earned when a student successfully completes a college course in which the student is enrolled concurrently with the student's high school courses with the approval of the principal. Credit will be granted at the end of each semester even though only one semester of a two-semester course is completed. (p. 4.)

### Graduation Requirements

Graduation from the secondary program in the Crawfordsville Community School Corporation shall be subject to the approval of the Board of Education upon recommendation of the high school principal and the superintendent of schools. The following minimum requirements are established as requisite to recommendation for graduation:

1. Credits – 43 or more credits are required with a minimum of 8 in English, 4 in Mathematics, 4 in Science, 2 in U.S. History, 1 in Government, 1 in Economics, 1 in Health and Safety, 2 in Physical Education, and 21 electives. (p. 5.)

### End of Course Assessments

As part of Indiana's school accountability system under Public Law 221, End-of-Course Assessments (ECA) are designed to ensure the quality, consistency, and rigor of Core 40 courses across the state. Aligned with Indiana's Academic Standards, ECAs are final exams measuring what students know and are able to do upon completion of targeted Core 40 courses; specifically Algebra I and English 10. Both portions of the ECA (Algebra I and English 10) must be passed before a diploma may be issued. Students who unsuccessfully attempt the ECA must participate in a remediation course and will continue to retest until they successfully pass both portions of the ECA. (pp. 6, 7)

## SECTION III. ACADEMIC HONORS AND AWARDS

### Honor Roll

There will be two honor rolls:

1. The High Honor Roll - to be eligible a student must have a grade point average of 3.67 or higher and have no grade(s) lower than a B-.
2. The Honor Roll - To be eligible a student must have a grade point average of 2.67 or higher and have no grade(s) lower than a C-.

The grade point average will be computed using the following scale: A+ = 4.33                      C+ = 2.33

A	=	4.00	C	=	2.00
A-	=	3.67	C-	=	1.67
B+	=	3.33	D+	=	1.33
B	=	3.00	D	=	1.00
B-	=	2.67	D-	=	0.67
			F	=	0.00

1. Honor rolls will be computed at the end of each nine-week grading period based on the grades received during that grading period and at the end of each semester.

### Weighted Grades

Advanced Placement (AP) courses shall be given weighted grades. The weighting will begin with the current freshman class (cohort 2015). AP courses are usually offered at the junior and senior years. Weighting grades will potentially improve the percent of students taking AP courses and may affect class rank. Additional AP courses are pending. (p. 7)

### Academic Diplomas

General Diploma

Listed below are the requirements as adopted by the Crawfordsville Community School Board of Trustees in accordance with the State Department of Instruction.

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Language Arts	8 credits
Social Studies (2-U.S. History, Government, Economics)	4 credits
Mathematics (Algebra I or Integrated Math)	4 credits
Science (Biology)	4 credits
Health and Education	1 credit
Basic Physical Education (2 1-semester classes)	2 credits
Career Academic Sequence	6 credits
Flex Credits	5 credits
Total Electives	9 credits
Total graduation credits required	43 credits

Flex Credit 5 credits

To earn 5 Flex Credits a student must complete one of the following:

1. Additional courses to extend the career academic sequence
2. Courses involving workplace learning, which may include the following courses:
  - a. Career exploration internship
  - b. Professional career internship
  - c. Business cooperative experiences
  - d. Cooperative family and consumer sciences
  - e. Industrial cooperative education
  - f. Interdisciplinary cooperative education
  - g. Marketing field experience
3. Advanced career-technical education, college credit.
4. Additional courses in:
  - a. Language Arts
  - b. Social Studies
  - c. Mathematics
  - d. Science
  - e. World Languages
  - f. Fine Arts

40 State Credits Required 43 Crawfordsville High School Credits Required

Additional Information

1. Students pursuing a college preparatory course should select academic English courses. In addition, you should earn minimum credits from the following areas: English (8), Foreign Language (4), Mathematics (6), and Social Studies (6). The guidance counselor can help you to obtain requirements from specific colleges.
2. Students who wish to graduate early must declare their intention in writing prior to scheduling their senior courses. Parent permission and school approval will be required.
3. Curriculum plans are to be made for both the first and second semesters. Plan carefully as changes are discouraged and often impossible.
4. Course addition policy:
  - a. Semester 1: Students may not add courses to their schedule after the first two days.
  - b. Semester 2: Students must see the counselor to add courses prior to the first day of second semester.
5. Students may carry a maximum of 1 study hall.
6. Any incomplete must be made up within the nine-week period following the absence. If not, the student will receive a failing grade.
7. Grade classification is based upon credits earned.
8. Fresh. = 0-8; Soph. = 9-18; Junior = 19-29; Senior = 30+

CORE 40

Ninth grade students will work with their parents and guidance counselors to create a career and course plan. The plan will direct the student toward

1. 28-30 credits from this list.
 

Language Arts (Literature, Composition, and Speech)	8 credits
Social Studies (2 U.S. History, Government, Economics, 2 World History and/or Geography, 2 additional Social Studies credits)	6 credits
Mathematics (Alg. I, Geometry, Alg. II, *All students requirement to take math or physics courses during their junior or senior year)	6 credits
Science (2 Biology and 2 Chemistry, Physics or Integrated Chemistry/Physics and 2 additional credits from: Chemistry, Physics, Earth/Space Science, Bio. II, Integrated Health Sciences, Adv. Bio., Adv. Chemistry, Adv. Physics)	6 credits
Health and Education	1 credit
Physical Education (2 1-semester classes)	2 credits
Career Academic Sequence	6 credits
Electives	5 credits
2. 8 credits in courses from the list above or below.
  - a. Foreign Language (French, German, Spanish)
  - b. Art (Art, Drama, Music)
  - c. Computers (Computer Applications, Computer Programming)
  - d. Career Area (6 credits in sequence from a technical career area)
3. Choose 6 or more credits from any courses at your school.
4. 2.0 GPA (Grade Point Average)

achievement of life goals beyond high school. By defining requirements for success in future education and work, the Indiana Core 40 guides this planning process.

CORE 40 with Technical Honors (minimum 47 credits)

For the Core 40 with Technical Honors diploma, students must:

1. Complete all requirements for Core 40

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2. Complete a career-technical program (8 or more related credits)
3. Earn a grade of “C-” or better in courses that will count toward the diploma.
4. Have a grade point average of a “B” or better.
5. Complete two of the following, one must be A or B:
  - a. Score at or above the following levels on WorkKeys: Reading for Information – Level 6; Applied Math – Level 6; Locating Information – Level 5
  - b. Complete dual high school/college credit courses in a technical area (6 college credits)
  - c. Complete a Professional Career Internship course or Cooperative Education course (2 credits)
  - d. Complete an industry-based work experience as part of two-year technical educational program (minimum 140 hours)
  - e. Earn a state approved, Indiana recognized certification

CORE 40 with Academic Honors Diploma

The Indiana State Board of Education has authorized Crawfordsville High School to award The Academic Honors Diploma to graduates who meet the following graduation requirements:

Core 40 with High Academic Honors Diploma

1. Minimum standards require earning 47 credits as described below:
  - a. **English** - 8 credits to include English 11 Honors and English 12 Honors.
  - b. **Social Studies** - 6 credits to include U.S. History Honors, Government Honors, and Economics Honors. At least two credits in World History/Civilization or 2 credits Geography/ History of the World.
  - c. **Mathematics** - 8 credits to include Algebra I, Geometry or Geometry Honors, Algebra II Honors, Pre-Calculus/Trigonometry Honors, and/or Calculus. Calculus/Trigonometry Honors, and/or Calculus.
  - d. **Science** – 6 credits to be selected from Biology, Chemistry, Physics, Advanced Chemistry, Advanced Physics, or Advanced Biology. Science credits must include 2 credits in Biology or Biology Honors; 2 credits in Chemistry or 2 credits in Physics, Integrated Chemistry Physics, and 2 credits in Chemistry, Physics, Integrated Health Science, Advanced Biology II, Advanced Chemistry, or Advanced Physics.
  - e. **Foreign Language** – 6 credits in one language or 4 credits in one language and 4 credits in another language.
  - f. **Fine Arts** – 2 credits in Art and/or Music.
  - g. **Health and Wellness**– 1 credit, which is a regular state requirement.
  - h. **Basic Physical Education** – 2 credits (2 semesters), which is a regular state requirement.
  - i. Career Academic Sequence, Flex Credit, and Elective Credit to bring the total to 47 credits.
1. Complete one of the following:
  - a. Complete AP courses (4 credits) and AP exams
  - b. Earn a combined score of 1200 or higher on the SAT critical reading and mathematics
  - c. Score a 26 or higher composite on the ACT
  - d. Complete dual high school/college credit courses from the Core Transfer Library (6 transferable college credits)
  - e. Complete a combination of AP course (2 credits) and corresponding AP exams and dual high school/college credit courses (s) from the Core Transfer Library (3 transferable college credits)
2. The overall grade point average must be 3.000 or above.
3. A grade lower than a “C-“for semester average will not count toward the diploma.
4. Earn 47 credits. All students must take a math or physics course their junior year.

## APPENDIX B: Fine Arts Curriculum Course Descriptions

## MUSIC DEPARTMENT

### **Intermediate/Advanced Concert Band (4168/4170) (9, 10, 11, 12) 2 semesters, 2 credits**

Through participation in concert band, students will perform, alone and with others, a varied repertoire of music. Students will grow as musicians through the study of the six basic elements of music – rhythm, pitch, dynamics, timbre (tone quality), texture, and form – and how these elements relate to all styles of music from all points in history. Aspects of intonation, balance and blend within the ensemble, and basics of music theory and composition will also be stressed. All students enrolled in this course are also required to participate in marching band and pep band. Marching band includes a summer band camp and several Saturday competitions. Through their involvement in band, students will also have the opportunity to participate in the ISSMA Solo and Ensemble Contest.

**Prerequisite:** Prior instrumental experience, or completion of a successful audition and permission of the director.

### **Jazz Ensemble [Percussion Class] (4164) (9, 10, 11, 12) 2 semesters, 2 credits**

The CHS Jazz Ensemble is an elite group of dedicated musicians that is interested in expanding their musical experiences through the study of jazz. The band performs all types of jazz, including ragtime, Dixieland, blues, swing, bebop, cool, bossa nova, fusion, and many others. Through their participation in the Jazz Ensemble, students will learn about the history of jazz and influential jazz musicians and composers. They will also learn a great deal of music theory necessary for improvisation. Improvisation, a major component of jazz, is an integral part of daily rehearsals of this ensemble. The instrumentation of this group is limited, and participation is open only by audition each May for the upcoming school year. Because this group is comprised of the most talented and dedicated instrumental musicians in the school, there are several performances each year, including participation in at least one competition in the spring semester. Time commitment to the ensemble is a must.

**Prerequisite:** Prior instrumental experience and audition by the director.

### **Intermediate Chorus (4186) (9, 10, 11, 12) 2 semesters, 2 credits**

This class is open to students who desire to continue singing at the high school level. Students will continue using proper vocal skills and music fundamentals. This will include proper vocal use, tone production, balance and blending of voices, and breathing techniques. Sightsinging and rhythm patterns will be more complex as the students advance. A variety of music literature will be used. Students will participate in the ISSMA Solo/Ensemble contest and the ISSMA organizational contest.

**Prerequisite:** None

### **Advanced Chorus [Show Choir] (4188) (9, 10, 11, 12) 2 semesters, 2 credits**

This class will do advanced study in all phases of choral literature. The activities and experiences of this class will include show choir, vocal jazz, and classical choral literature. Emphasis will be given to more complex sight singing, rhythm patterns, as well as vocal skills-Including proper use of the singing voice, balance and blending of vocal parts, correct breathing skills, and tone production. Students will learn basic movements and choreography that will be performed at all concerts. Students will attend added dress rehearsals prior to upcoming performances. Students will be required a costume fee, but will have fundraising opportunities to help assist with this cost. This class will be involved in performing not only at school, but visiting all the elementary schools and performing for the community. Members will participate in the ISSMA Solo/Ensemble contest. Students wishing to sing in this choir will be selected by audition.

**Prerequisite:** Audition by the director

**Recommended:** Chorus experience

**Music Theory & Composition (4208) (10, 11, 12) 1 semester, 1 credit**

This class is designed for the student who wants to explore deeper into how music is put together. It could be called the grammar of music. It involves the study of basic music fundamentals, the study of scale, chord and harmony construction. Students will have some ear training, rhythmic dictation, and learn some simplified keyboard skills. Also, time is spent with vocal and instrumental arranging as well as the tone color by use of harmonic effects. Students will also study the elements of composition and create some original compositions.

**Prerequisite:** Department approval; knowledge of music clefs and performance ability

### **Theatre Curriculum**

**Theatre Arts (4242)**

**(9, 10, 11, 12)**

**1 semester, 1 credit**

Students enrolled in Theatre Arts will read and analyze plays. They will create scripts and theatre pieces, conceive scenic designs, and develop acting skills. These activities should incorporate elements of theatre history, culture, analysis, response, creative process and integrated studies.

**Prerequisite:** None

## **ART DEPARTMENT FINE ARTS**

### **Introduction to the Fine Arts Curriculum**

In order to provide a quality education for every child in Indiana, it is important to provide for all aspects of human growth. This includes artistic, expressive, and cultural, as well as intellectual, emotional, physical and social development. The arts are essential in education for they provide students with the means to think, feel, and understand the world around them in ways unique and distinct from other disciplines. Literacy in the arts enhances a person's ability to participate in society by developing creative problem solving, inquiry, and communication skill, and by providing an avenue for self-expression and multiple points of view. For these reasons, a curriculum in each of the fine arts should be available to all students so that they may become self-directed toward lifelong learning in the arts.

The ultimate goal of the fine arts curriculum is to promote lifelong participation in the arts by developing skilled creators, performers, critics, listeners, and observers of the arts. Students can use the arts as a means of (1) self-expression and communication, (2) develop critical thinking skills, (3) self-knowledge and understanding of the world around them, and (4) increase awareness of the artistic heritage of other cultures, as well as their own.

Students who are proficient in the fine arts grow in their ability to think and learn independently. Their view of the world expands as creative avenues to expression and understanding are developed. Ultimately, the entire community benefits through the creativity, vision, and empathy fostered in the fine arts.

In order for this to happen, students must be immersed in opportunities to learn about the arts, perform and create in one or more of the art forms, and learn to analyze and critique the arts. The goals for students in K-12 (or Crawfordsville Community School Corporation) are to enable each student to do the following:

- Value the arts
- Develop one's artistic skills
- Become confident in one's artistic abilities
- Become creative problem solvers
- Communicate through the arts
- Communicate about the arts
- Exhibit knowledge of the historical and cultural diversity of the arts; and
- Exhibit knowledge of criticism and aesthetics in the arts

**Introduction to 2 Dimensional Art (4000) (9, 10, 11, 12) 1 semester, 1 credit**

This course is an introductory survey of two dimensional art and art production. The class will study various periods of art history, analyze works of various artists and include art criticism and aesthetics. Students will gain a working vocabulary of art terms and will be introduced to various media and techniques. The class stresses the elements of art and principles of design, visual awareness, and composition in two dimensional art. In addition, students: (a) create works of art, (b) reflect on the outcome of their studio experiences by making historical connections, writing about the process, and making presentations of their work, (c) work individually and in groups, (d) find correlations to other disciplines, (e) explore career options, (f) identify ways to utilize and support art museums, galleries, studios, and community resources.

**Prerequisite:** None

**Introduction to 3 Dimensional Art (4002) (9, 10, 11, 12) 1 semester, 1 Credit**

This class builds on the sequential learning experiences of Introduction to 2 Dimensional Art and is a survey of three dimensional art and art production. The class will study various periods of art history, analyze works of various artists and include art criticism and aesthetics. Students will build on their working vocabulary of art terms and will be introduced to various three dimensional media and techniques. This class will continue to build on the elements of art and principles of design, visual awareness, and composition in three dimensional art. In addition, students: (a) create works of art, (b) reflect on the outcome of their studio experiences by making historical connections, writing about the process, and making presentations of their work, (c) work individually and in groups, (d) find correlations to other disciplines, (e) explore career options, (f) identify ways to utilize and support art museums, galleries, studios, and community resources.

**Prerequisite:** Introduction to 2 Dimensional Art

**Ceramics (4040) (10, 11, 12) 1 semester, 1 credit**

This course provides an introductory experience in three dimensional design using clay as a medium. Various hand-building techniques will be explored as well as learning to use a potter's wheel. The course will place an emphasis on how the sculptural form is utilized as an art form by both ancient and modern cultures. An in-depth study will be made of Greek pottery forms. A working vocabulary of ceramic terms will be used. The elements of art and principles of design will be utilized in creating clay projects. In addition, students: (a) create works of art, (b) reflect on the outcome of their studio experiences by making historical connections, writing about the process, and making presentations of their work, (c) work individually and in groups, (d) find correlations to other disciplines, (e) explore career options, (f) identify ways to utilize and support art museums, galleries, studios, and community resources.

**Prerequisite:** Introduction to Art 2D and 3D or permission of instructor

**Digital Design (4082) (11, 12) 1 semester, 1 credit**

Students in this class will learn to use the computer as a means of visual communication. Students will learn to use various hardware and software tools in their work. The differences between raster and vector graphics will be discussed and utilized. The class will utilize the elements of art and principles of design. A working vocabulary of the computer graphics field will be used. In addition, students: (a) create works of art, (b) reflect on the outcome of their studio experiences by making historical connections, writing about the process, and making presentations of their work, (c) work individually and in groups, (d) find correlations to other disciplines, (e) explore career options, (f) identify ways to utilize and support art museums, galleries, studios, and community resources.

**Prerequisite:** Introduction to Art 2D & 3D - or - Junior or Senior 3

**Drawing I (4060) (10, 11, 12) 1 semester, 1 credit**

This course focuses on drawing techniques, processes, and media. The class will look at drawings of both contemporary and historical artists during different art periods, and will analyze the works of those artists using art criticism and aesthetics. Students will gain a working vocabulary of various drawing terms and will create drawings using a variety of media (such as pencil, charcoal, conte, pen & ink, etc...) and techniques. Concepts in value, composition and problem-solving will be incorporated in the class. Written assignments and analyses of artwork will be part of the course. In addition, students: (a) create works of art, (b) reflect on the outcome of their studio experiences by making historical connections, writing about the process, and making presentations of their work, (c) work individually and in groups, (d) find correlations to other disciplines, (e) explore career options, (f) identify ways to utilize and support art museums, galleries, studios, and community resources.

**Prerequisite:** Introduction to Art 2D & 3D

**Drawing II (4060) (10, 11, 12) 1 semester, 1 credit**

This course builds on Drawing I. Additional materials and techniques will be used. Color will be introduced in drawings. Emphasis will be placed on the student searching for meaning, significance and direction in their work. Use of organizational principles to solve visual problems will be explored. A working vocabulary of drawing techniques will be expanded from Drawing I. The work of contemporary and historical artists and art periods will be studied. Students will learn how to use symbolism in their studio work. There will be written assignments and analyses as in Drawing I. Art history, aesthetics, and art criticism will be included. Students should be willing to experiment with different media, techniques and subject matter. In addition, students: (a) create works of art, (b) reflect on the outcome of their studio experiences by making historical connections, writing about the process, and making presentations of their work, (c) work individually and in groups, (d) find correlations to other disciplines, (e) explore career options, (f) identify ways to utilize and support art museums, galleries, studios, and community resources.

**Prerequisite:** Introduction to Art 2D & 3D Drawing I

**Jewelry I (4042) (10, 11, 12) 1 semester, 1 credit Semester I**

Jewelry I is designed for the student who has interest in three-dimensional design. Students begin to explore the art of hand formed jewelry and metal craft. The course is approached from the standpoint that the student has little or no experience in working with metal as a medium. Projects will be executed in copper, brass, nu-gold, nickel silver and mixed media. Items created are to be wearable and hand-fabricated, such as rings, bracelets, pendants, pins, and other body adornment. Units to be studied include a survey of historical and contemporary jewelry from a variety of cultural groups including aesthetics and criticism. Emphasis is placed on safety, design and proper technique in addition to quality workmanship. Organizational principles and design studies will be used to solve specific visual problems. Students will learn design processes and fabrication techniques such as, basic soldering, sawing, filing, piercing, wirework, rolling mill, forming, forging and finishing techniques.

\*Students in Jewelry I engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production that lead to the creation of portfolio quality works.(a) Students create works of art, (b) reflect on the outcome of their studio experiences by making historical connections, writing about the process, and making presentations of their work, (c) work individually and in groups, (d) find correlations to other disciplines, (e) explore career options, (f) identify ways to utilize and support art museums, galleries, studios, and community resources.

**Prerequisite:** Intro to Art (Sem I & II)

**Jewelry II (4042) (10, 11, 12) 1 semester, 1 credit Semester II**

Jewelry II is designed to offer a continued education of jewelry and an in depth study of three-dimensional metal design. Students will discuss, create, and fabricate jewelry or other body adornment pieces to illustrate how historical and contemporary relationships blend with the technology of today and traditions of the past. Projects will be executed in copper, brass, nu-gold, nickel silver and mixed media. Items created are to be wearable and hand-fabricated. Students should be willing to demonstrate a sincere desire to explore a variety of ideas, techniques, processes, problem solving skills, as well as extensive design experimentation. Emphasis is placed on safety, design and proper technique in addition to quality workmanship. Various metals, media, and techniques will be explored including surface embellishment, forming, coloring and texturing metal, roller embossing, cold joining, movable parts, casting, etching, inlay, resin, and incorporating found objects into personal work.

\*Students in Jewelry II engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production that lead to the creation of portfolio quality works. (a) Students create works of art, (b) reflect on the outcome of their studio experiences by making historical connections, writing about the process, and making presentations of their work, (c) work individually and in groups, (d) find correlations to other disciplines, (e) explore career options, (f) identify ways to utilize and support art museums, galleries, studios, and community resources.

**Prerequisite:** Jewelry I & Intro to Art I & II

**Painting (4084) (10, 11, 12) 1 semester 1 credit**

This class is an introduction to the materials, techniques, and subject possibilities of painting. A sequential learning experience encompassing art history, art criticism, and aesthetics will be built into the studio experience. Color theory will be explored in detail. Students will build on learning to express meaning, significance, and direction in their work and use the elements of art and principles of design to solve visual problems. Symbolism and intended meaning will be discussed. A working vocabulary of painting techniques and media will be used. Realistic, abstract, and non-objective paintings will be created. In addition, students: (a) create works of art, (b) reflect on the outcome of their studio experiences by making historical connections, writing about the process, and making presentations of their work, (c) work individually and in groups, (d) find correlations to other disciplines, (e) explore career options, (f) identify ways to utilize and support art museums, galleries, studios, and community resources.

**Prerequisite:** Introduction to Art 2D & 3D Drawing I and II strongly suggested

**Photography I (4062) (10, 11, 12) 1 semester, 1 credit**

\*Photography I is an introduction to basic 35mm black and white photography both in regular dark room processes and digital image making. Emphasis will be placed on the fundamentals of photography, techniques, visual awareness, and the effective use of the camera and darkroom equipment as a tool of communication. Students will learn the operation and functions of the 35mm camera, compositional guidelines, lab safety procedures, develop 35mm negatives, and make black and white prints. Class work will include the appreciation and exploration of historical and contemporary photography as well as art criticism and aesthetics. Students will explore visual subject matter to express thought, feeling, and ideas to solve specific visual problems.

\*Students in Photography I engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production that lead to the creation of portfolio quality works. (a) Students create works of art, (b) reflect on the outcome of their studio experiences by making historical connections, writing about the process, and making presentations of their work, (c) work individually and in groups, (d) find correlations to other disciplines, (e) explore career options, (f) identify ways to utilize and support art museums, galleries, studios, and community resources.

\*Students need to provide or rent a 35mm manual focus camera. Camera may be automatic but must have the option of manual settings and manual focus option.

**Prerequisite:** Intro To Art I preferred

**Photography II (4062)**

**(10, 11, 12)**

**1 semester, 1 credit Semester II**

Photo II is a continuation of the study of photography. This course is designed for the student who wishes to expand his/her knowledge and experience in black and white photography, digital image making and editing. The course will concentrate on refining and improving dark room skills, advanced application, printing techniques, increased compositional understanding, and communicating with an audience through their photography. Students will explore a variety of photographic techniques and manipulations using traditional and digital equipment. Class work will include the appreciation and exploration of historical and contemporary photography as well as art criticism and aesthetics. Students should demonstrate a sincere desire to explore ideas and willingness to solve visual problems.

\*Students in Photography II engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production that lead to the creation of portfolio quality works. (a) Students create works of art (b) reflect on the outcome of their studio experiences by making historical connections, writing about the process, and making presentations of their work, (c) work individually and in groups, (d) find correlations to other disciplines, (e) explore career options, (f) identify ways to utilize and support art museums, galleries, studios, and community resources.

\*Students must provide or rent their own 35 mm manual focus camera. Camera may be automatic but must have a manual setting and manual focus option.

**Prerequisite:** Photography I

**Photography III (4062)**

**(11, 12)**

**1 semester, 1 credit Semester I**

Photography III is an in-depth study of traditional photography and digital imagery. Students create images incorporating a variety of film-based and non-film processes. They will use single lens reflex cameras and digital cameras, computer editing programs (Photoshop CS), darkroom equipment, digital software, scanners and printers. This class will introduce students to additional dark room practices and manipulation for special effects including, combination printing, night photography, and high speed film use. Students will search for meaning, significance, and direction in their work using art/photographic history, art criticism and aesthetics. Students are encouraged to evaluate subject matter, symbols, and ideas that communicate intended meaning in their artwork and solve specific visual and photographic problems. An image portfolio and written artist statement is required at the end of the semester.

\*Students in Photography III engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production that lead to the creation of portfolio quality works.(a) Students create works of art (b) reflect on the outcome of their studio experiences by making historical connections, writing about the process, and making presentations of their work, (c) work individually and in groups, (d) find correlations to other disciplines, (e) explore career options, (f) identify ways to utilize and support art museums, galleries, studios, and community resources.

\*Students must provide or rent their own 35 mm manual focus camera. Camera may be automatic but must have a manual setting and manual focus option. In addition, a digital camera would be helpful although not required.

**Prerequisite:** Photography I & II

**Photography IV (4062) (11, 12) 1 semester, 1 credit Semester II**

Media Arts IV is intended for the highly motivated student seriously interested in the concepts, theories, and aesthetics of photography. This class is a combination of traditional and digital imaging processes. Focus is on the use of digital and traditional media arts as an extension of the creative mind. Emphasis is placed on critical thinking skills involving relationships between context, form, and function in historical and contemporary photography. Students should be willing to explore a variety of ideas, techniques, processes, and problem solving criteria working toward individual direction and personal expression in the photographic medium. Students will write about photographic connections and processes and make presentations. An image portfolio and written artist statement is required at the end of the semester.

\*Students in Photography IV engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production that lead to the creation of portfolio quality works. (a) Students create works of art, (b) reflect on the outcome of their studio experiences by making historical connections, writing about the process, and making presentations of their work, (c) work individually and in groups, (d) find correlations to other disciplines, (e) explore career options, (f) identify ways to utilize and support art museums, galleries, studios, and community resources.

\*Students need to provide or rent their own 35 mm manual focus camera. Camera may be automatic but must have a manual setting and manual focus option. In addition, a digital camera would be helpful although not required.

**Prerequisite:** Photography I, II, & III

**Printmaking ((4066) (10, 11, 12) 1 semester, 1 credit**

Students will explore various printmaking methods including relief, intaglio, planographic and stenciling. The works of printmakers – both contemporary and historical – will be studied and students will use art criticism and aesthetics in this process. A working vocabulary of printmaking terms will be used. The elements of art and principles of design will be used in designing projects and students will be encouraged to use creative thinking and expression. Problem solving will be a part of all projects. In addition, students: (a) create works of art, (b) reflect on the outcome of their studio experiences by making historical connections, writing about the process, and making presentations of their work, (c) work individually and in groups, (d) find correlations to other disciplines, (e) explore career options, (f) identify ways to utilize and support art museums, galleries, studios, and community resources.

**Prerequisite:** Into I & II and Drawing I Drawing I and II highly recommended

**Sculpture (4044) (10, 11, 12) 1 semester, 1 credit**

This course provides an introduction to three dimensional design. Students will create realistic, abstract and non-objective sculptures utilizing subtractive and additive techniques of carving, modeling, construction, and assembling. Students will increase their perception and expressive skills through visual problem solving and the use of a variety of materials, tools, and techniques. Emphasis will be placed on aesthetic qualities found in the three dimensional form using the elements of art and principles of design. A working vocabulary of sculptural terms will be used. Students will learn how the sculptural form has been used by both contemporary and historical cultures. In addition, students: (a) create works of art, (b) reflect on the outcome of their studio experiences by making historical connections, writing about the process, and making presentations of their work, (c) work individually and in groups, (d) find correlations to other disciplines, (e) explore career options, (f) identify ways to utilize and support art museums, galleries, studios, and community resources.

**Prerequisites:** Introduction to Art 2D and 3D

**Advanced Two Dimensional Art I (4004) (11-12) 1 semester, 1 credit Semester I**

Advanced Two Dimensional Art is designed for the student who wishes to develop new or improved knowledge in the visual arts. Only students who already possess, or are willing to learn new concepts should attempt Advanced Art. Objectives include the readiness to engage in visual problem solving and the pursuit of visual awareness and creativity. Students will begin to create a college level portfolio work using a variety of traditional and non-traditional 2-D media such as graphite, pastel, colored pencil, acrylic paint, printmaking, advanced design concepts, digital imagery, and mixed media. Students will explore a variety of subject matter from portraiture and life drawing to multi media and abstract concepts. Students in this class will follow a curriculum of both assigned problems and independent studies. Planning, execution, creativity and craftsmanship are all stressed on written, oral, and studio assignments.

\*Students in Advanced Art I engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production that lead to the creation of portfolio quality works. (a) Students create works of art, (b) reflect on the outcome of their studio experiences by making historical connections, writing about the process, and making presentations of their work, (c) work individually and in groups, (d) find correlations to other disciplines, (e) explore career options, (f) identify ways to utilize and support art museums, galleries, studios, and community resources.

**Prerequisite:** Intro to Art I & II, and 3 electives and consent of teacher

**Advanced Three Dimensional Art II (4006) (11-12) 1 semester, 1 credit Semester II**

Advanced Three Dimensional Art is a continuation of Advanced Art I. It is designed for the student who wishes to develop new or improve knowledge in the visual arts. Only students who already possess, or are willing to learn new concepts should attempt Advanced Art II. Objectives include the readiness to engage in visual problem solving and the pursuit of visual awareness and creativity. Students will continue to create a college level portfolio work using a variety of traditional and non-traditional 3-D media such as clay, plaster, plexiglass, textile, wire, metal, cardboard, Styrofoam, and mixed media. Students will explore and create realistic and abstract 3-D art work using a variety of techniques including additive and subtractive processes of carving, construction and assembling. Students in this class will follow a curriculum of both assigned problems and independent studies. Planning, execution, creativity

and craftsmanship are all stressed on written, oral, and studio assignments.\*Students in Advanced Art I engage in sequential learning experiences that encompass art history, art criticism, aesthetics, and production that lead to the creation of portfolio quality works.(a) Students create works of art, (b) reflect on the outcome of their studio experiences by making historical connections, writing about the process, and making presentations of their work, (c) work individually and in groups, (d) find correlations to other disciplines, (e) explore career options, (f) identify ways to utilize and support art museums, galleries, studios, and community resources.

**Prerequisite:** Adv. Two-Dimensional Art I Intro to Art I & II, and 3 electives and consent of teacher

**Studio Art (4048)**

**(11, 12)**

**1 semester, 1 credit or 2 semesters, 2 credits**

Studio Art is designed for the serious, self-motivated student who wants advanced studio time for creating two and three-dimensional art and for those student considering a career in the visual arts. Students will continue to create focused art work for college portfolio entrance. This class is usually reserved for (but not limited to) those students who have had most or all of the art classes offered within the department. Studio art involves significant commitment and goal setting. (\*Option of Advanced Placement – see below). Students must attend class daily and be willing to work independently during their assigned class period as well as outside the classroom. Each student will meet with the instructor with his/her accomplished ideas, direction and goals at least three times per week. Studio Art will address three major concerns: (1) Quality (compositional and technical skills, realization of artist's intentions); (2) Concentration (on a particular problem or visual interest), (3) Breadth (experience in the formal, technical, and expressive means of the student artist). Students must be willing to explore and concentrate on a variety of ideas, techniques, and problem solving solutions working toward individual direction and personal expression in their chosen area. Students will produce and exhibit a series of works accompanied by a written artist statement at the end of the semester. Areas of study for Studio Art may include: Drawing, Painting, Sculpture, Ceramics, Jewelry, Printmaking, Digital Design, Photography, Digital Photography, Mixed media, or Art History.

\*Students in Studio Art engage in learning experiences that encompass art history, art criticism, aesthetics, and production that lead to the creation of portfolio quality works. (a) Students create works of art, (b) reflect on the

outcome of their studio experiences by making historical connections, writing about the process, and making presentations of their work, (c) work individually and in groups, (d) find correlations to other disciplines, (e) explore career options, (f) identify ways to utilize and support art museums, galleries, studios, and community resources.

**Prerequisite:** Intro to Art 2-D & 3-D plus 3 electives and consent of teacher – or --4 electives and consent of teacher.

**\*\*Option: Students are encouraged to apply for Advanced Placement (AP) acceptance.**

AP Studio Art is not based on a written examination; instead, students submit portfolios for evaluation at the end of the school year. Most four-year colleges in the United States give students credit, advanced placement or both on the basis of AP Exam scores. By entering college with AP credits, you'll have the time to move into upper level courses, pursue a double-major or study abroad.-If your intention is to apply and submit your portfolio for AP, you must take Studio Art both semester I and semester II. (2 semesters, 2 credits).

-This course involves a significant commitment of time and energy as students will also need to work outside the classroom to complete the AP portfolio requirements. It is vital that you plan far enough in advance so that you can complete the portfolio on time.

-Students are required to get consent from the teacher (spring of previous year) who will be mentoring your AP work or who is assigned as your AP Coordinator.

-AP portfolios require 27 works of art.

-You must choose an AP portfolio concentration in: Drawing, 2-D Design, or 3-D Design.

-AP Coordinator/teacher will provide student with instruction and guidance on requirements, choosing art work, and proper submission to Advanced Placement.

-Student is required to submit/mail the required portion of the AP portfolio, complete the online registration and application, enter the concentration statement online, take photographs of all portfolio submissions and upload images.

-Students are required to forward the completed AP portfolio to the AP Coordinator/AP teacher for review by mid

April