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# COLLEGE PREPAREDNESS: A Program for High School Education Professionals

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COLLEGE PREPAREDNESS:  
A Program for High School Education Professionals

By  
Cullen Gilbreath

A graduate project submitted in partial fulfillment of the requirements for the  
degree of Masters of Science in Technical Communication

Montana Tech  
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## Abstract

This project focuses on building a college preparedness program for high school students with the intention of preparing each student for success at an institution of higher learning. The project deliverable is a website containing a college preparation program for high school education professionals to implement in a high school junior or senior level class. The webpage URL at the time of this documents writing is: [www.cgilbreath1.wixsite.com/prospectcollegeprep](http://www.cgilbreath1.wixsite.com/prospectcollegeprep). The program is accessed through the website with the following college prep material: A curriculum guide, college prep checklists, presentations, notes, active learning activities, and program evaluation tool that can be used to quantify the success of the program.

*Keywords:* college preparation, curriculum, program evaluation

## Chapter 1

### Introduction

Despite many efforts, there have not been dramatic increases in college attendance, retention, and degree completion in the past 10 years. The solution to this problem can be effective college preparation programming (Wyatt, Smith, & Proestler, 2014). Students that are better prepared for college are more likely to succeed. Retention has become a key focus of higher education institutions because retention is cheaper than recruitment. Students want to graduate and get a good job while administrators and faculty want to make sure federal funding levels and donor support remain steady, if not increase (Foss, Foss, & Paynton, 2014). The bar graph in *Appendix 1: First-Year Retention Rates in Montana and the United States* shows retention rates from 2006 to 2014 for Montana and the United States. The data from the National Student Clearinghouse Research Center shows first-year retention at public four-year bachelor's degree granting institutions. The data set includes students that stop out or transfer to another institution of higher education. The trend nationally shows moderate but largely stagnant growth in retention. In Montana, there was a slight decline in the 2014 cohort. For the United States to be competitive in a global economy, there exists a need for more students to enroll and complete college degrees. The data in *Appendix 2: Earnings and Unemployment Rates by Educational Attainment* from the U.S. Department of Labor illustrates the importance of receiving a college degree. The chart makes a strong argument for the value on education as a financial investment in the student's future.

Existing strategies that focus on underrepresented students are important, but do not go far enough to address the problem of low first-year persistence rates. Underrepresented students get the most need-based financial assistance from the Federal government in the form of free money like Pell Grants and need-based scholarships. Students from middle-income families tend to be left to finance

education through loans and end up with higher debt when completing their education. The focus of college preparation needs to be an all-inclusive strategy that encompasses all high school students interested in attending college.

A second problem that deserves attention are excessive student to counselor ratios in the country. This is a scenario that extends to Montana high schools. The American School Counselor Association reports the United States average student to counselor ratio at 471/1 with 250/1 being the recommended ratio. Information from the same source as the national figures shows that in Montana that figure sits at 310/1 at high schools with over 100 students. Many counselors at smaller schools in Montana are part-time counselors and teach subjects to make the job full-time. The time required to develop an effective college preparatory program for students has become unmanageable for counselors that must monitor student attendance and academic performance and give attention to social and/or emotional concerns. Many high school counselors that I talk to in my profession work hard to get information to students about college access and scholarship opportunities. However, the pressure to get high school students to go to class and graduate many times makes it very difficult to give equal attention to college preparation. Also, high school curriculums rarely have room to implement a college prep curriculum. At Butte High School, I am helping develop a program that students can take before school starts because of this issue. At Butte Central High School, the only room they have in the curriculum is on Friday during Senior Theology. In fact, findings suggest that high schools have prioritized credit accrual necessary for graduation over knowledge and skill development that would prepare students for life after graduation (Bromberg & Theokas, 2016). High school counselors appreciate any help they can get to best help their students achieve in higher learning. A line can be drawn from the lack of time available to high school counselors to devote to college preparedness directly to low first-year persistence rates at colleges and universities in the United States. This is an issue that needs to be addressed at a pre-college and college level.

## Literature Review

The literature on college preparation is heavily focused on underserved students (minority, low-income, and/or first generation), which is to be expected. Underrepresented students attend college at far lower rates and are more likely to drop out after their freshman year if they do attend college. The National Student Clearinghouse reported in 2014 that only about 70% of all college freshman (underserved or not), persist to their second year. Attention needs to be given to all students that have an interest in some form of higher education regardless of race, family history, or finances.

My college preparation program has three main areas of focus: College and major exploration, financial literacy, and high school to college transition. The review of literature focuses on these three main areas of college preparation and how they can address the declining persistence rates of college freshmen. The Literature Review will also explore the concepts of interaction design and other regularly used design principles in creating the project deliverable website and course content.

### College and Major Exploration

Getting information in the hands of high school students about the opportunities available to them by attending and completing a college degree is crucial. Cabrera & LaNasa (2002), outline a three-step college selection process. **1) Predispositions to Attend College.** Getting students interested in attending college is best accomplished as early in schooling as possible. This is true for all classes of students in America, but particularly true for underserved students. In fact, students who cannot remember a time they were not interested in going to college tend to be more successful college students (Hossler, Schmit, & Vesper, 1999). The scope of this graduate project does not allow for much information to be disseminated below the secondary education level. However, it is important to know that a focus on college predisposition needs to be applied to students at the elementary level, especially in underserved populations. **2) Search.** This is where students start to develop a list of possible



institutions. The key with this step is to get the student to understand their ambitions and interests and match those qualities in a university. The choices compiled in this stage are generally dependent on the sophistication and thoroughness of the search process. The amount of sophistication and thoroughness tends to be directly related to socioeconomic factors (Cabrera & La Nasa, 2000). Students from higher income families usually have parents that have been through the college search process and know how best to complete an effective college search. Again, special attention needs to be paid to underserved students to make sure they are identifying quality college options. When students have identified possible institutions, they can move on to more in depth research and campus visits. **3) College and Major Choice.** Generally, traditional semester colleges want students to make their attendance choice by May 1. This means considering financial aid packages, scholarships, career ambitions, and academic interests and deciding which institution gives them the best chance for successfully completing their degree. As mentioned in the college search section above, the more thorough the college search the student performs the more likely they are to choose the institution that best suits their needs in relation to their stated choice factors. Culture codes (Rapaille, 2007) can be an interesting way to study and understand the thought process that shapes a student's future decision making in a way to tie all three concepts of the college and major exploration process together. What "imprints" have been bestowed on these individuals that makes them predetermined to attend college? It is likely, per Rapaille, that these students were imprinted to want to attend college from as early as age seven. The degree or major in which they are interested is likely also the product of early imprinting. Working with students that are seniors in high school means understanding everyone's thought process and guiding them on the path with the greatest chance of success.

### Financial Literacy

Financial literacy programs have gained greater attention in recent years. This is because many high school and college students lack basic financial management skills. The absence of these skills can

negatively affect the ability of a student to save for expenses like paying for college (Braunstein & Welch, 2007). Many studies have been conducted to gauge the financial management skills of high school students. One study conducted by Mandell (2008) found low baseline results for these skills in 1997 and a downward trend in skills toward the end of his study in 2006. Despite efforts over the past two decades to provide students with financial literacy skills, numbers still show that high school and college students have relatively limited financial knowledge (Xiao, Serido & Shim, 2010). A later observation by Mandell (2009) claims that analysts and politicians put the culpability of declining statistics in financial literacy on complex financial consumer products, such as credit card interest rates and checking account fee structures. He proposes solutions involving mandatory financial education in high school and colleges and simplification of financial products offered to young adults.

From a financial assistance perspective, the best way for institutions to keep students enrolled is to control tuition increases that are outpacing the amount of financial aid allocated to each campus (Kane, 1999). Kane goes on to surmise that increasing expenses for institutions is not the only reason for increased tuition, but that states' governments are compelled to cut subsidies to colleges because of other constraints on their budgets. For many students, Federal Pell Grants are not enough to cover the full cost of attendance and loans are needed to close the gap to make staying in college a reality (Long & Riley, 2007). Furthermore, Long and Riley observe that merit-based aid and educational tax breaks are replacing need based aid. This negatively effects low-income students while positively effecting middle and high income students. However, I have observed that the students that tend to be in the most difficult college financial situation are those students from middle income families whose parents make too much money to qualify for a Pell grant, but not enough money to have saved for their child's college expenses. These are the students that are forced to completely, in most cases, debt finance their college education. When students are faced with accumulating more and more loan money, the decision to drop out becomes necessary in many instances. The infographic in *Appendix 3: Student Debt*

*Crisis* from TheWeek.com shows in detail the state of financial aid in the United States. The growing cost of college attendance is putting students into higher amounts of debt that are crippling due to the lack of high paying jobs needed to comfortably pay off debt. Some updated figures from the U.S. Department of Education on student loan debt in the United States from July 1<sup>st</sup>, 2016 show that the total student loan debt in the United States sits at \$1.35 trillion with an average debt per borrower at \$28,400.

### High School to College Transition

Essential for creating college success opportunities are college preparation programs aimed at facilitating the transition from high school to college and improving study habits needed for college success (Hagedorn & Tierney, 2002). Many programs have become essential tools in making the transition easier. Articulation programs including Advanced Placement, dual-credit enrollment, and International Baccalaureate help students get a head start on college level coursework and can defray financial college investment because these programs generally cost less per credit than actual college enrollment (Bailey & Karp, 2003). To the contrary, some colleges view dual-credit enrollment and AP or IB credits as inferior to institutional college credit because it is often difficult to gauge the level of instruction to the student that receives the equivalent college credit. How prepared are high school students entering their freshman year of college? The infographic in *Appendix 4: Preparedness Perceptions* from the education company Knewton looks at how high school teachers and college instructors perceive the situation. High school instructors surveyed think that 91% of their students are well prepared for college, but only 26% of college instructors feel that incoming freshmen are well prepared. This disconnect in student preparation illustrates the need for more collaboration between high schools and colleges to prepare students and improve persistence rates of college freshmen. Aiding the transition from high school to college involves more than getting a head-start on college course work. Inherent in college preparation is demonstrating the necessary skills needed to become a

successful college student (Baumann, Miller, & Sorenson, 2005). Focus must be paid to necessary study skills, note-taking skills, and principles of college level reading. Personal wellness and time management are also key skills needed to be successful in college. Staying healthy, mentally and physically, are important because students that suffer from poor mental health have a higher probability of dropping out (Eisenberg, Golberstein, and Hunt, 2009). Depression, anxiety, and homesickness are varying degrees of mental physical wellness that can be as powerful and physical illness. College students tend to rank getting sick and mismanaging time as two of the most common reasons for dropping out, right behind financial shortcomings, especially in the first-year (Rumberger, 2001). Students are generally not shy about sharing the fact that they have trouble with time management. What many students do not realize is the relation between time-management and self-management. The latter being critical in personal wellness and staying healthy (Daley, 2010).

### Visual Interface and Interaction Design Principles

My graduate project endeavors to make it easier for education professionals to get college preparation materials in front of students by applying commonly accepted user experience design principles. Effectively communicating information is one key principle of Technical Communications. To effectively communicate in a digital environment, one must be well versed in the principles of visual interface and interaction design.

Interaction design can be considered the creation of a dialogue between a person and a product, service, or system (Kolko, 2010). Communication must exist, aided by proper interaction design, from the user of a product and vice versa to be sure that the product is used correctly and as efficiently as possible. Furthermore, visual interface and interaction design must create an experience of a particular emotion and help the viewer truly understand the content of the interface (Kolko, 2010). The users of

the college prep program website will find it difficult to pass useful information on to their students if they find it problematic or unsatisfying to interact with the website.

The design principles used to create this type of website delivery system will focus heavily on first-time users and frequent users. Entry-points and accessibility will concentrate on creating an effective initial impression (Lidwell, Holden, & Butler, 2010). First-time users need easy access to information about the program and how to sign up. Frequent users will find more satisfaction in speedy access to curriculum material.

In fact, removing barriers to information will free up any user's movement and increase enjoyment of the experience. Every time a user is required to click a link is an unnecessary barrier to the information they desire (Galloway, 2004). Strategies that can be used to increase the efficiency of users finding the information they desire include, but are not limited to: Layering, wayfinding, and understanding figure ground relationships (Lidwell, Holden, & Butler, 2010). These interface design principles are hashed out in the most recently cited book, *Universal Principles of Design*. Layering can best be described as a process that involves organizing information into related groupings in order to manage complexity and reinforce relationships. Wayfinding is the process of using spatial and environmental information to navigate to a destination. Particular focus is given to orientation, route decision, route monitoring, and destinations in building an effective path to information through the principle of wayfinding. Gestalt principles of perception guide the understanding of figure ground relationships. Human perception separates stimuli into either figure or ground elements. Figure elements being those objects in focus and ground elements being unidentifiable background.

When these elements are clearly identifiable the relationship is stable and the figure element receives more attention, and is more easily remembered (Tidwell, 2010). Usability testing is an effective means of identifying what elements on certain pages receive the most attention. The principles of

interaction design paired with usability testing support the creation of effective user to product communication. Organization and visual structure are other design principles worth mentioning on a broader spectrum in designing an effective user experience on my website. Organization and visual structure provide visual pathways needed to experience a product in a systematic way. Most importantly, the human eye craves structure and will seek to do its own organizing when structure is not apparent. In this case, the designer loses control of the message to human perception (Mullet & Sana, 1995). Losing control in interaction with a user is to be avoided at all costs.

## Chapter 2

### Methodology

#### Content Analysis for Program Key Points

A content analysis was completed and was applied in creating my program curriculum. For the content analysis, my focus was to browse websites of college admissions counselor associations. The four association websites chosen were NACAC, IECA, HECA, and WACAC as these organizations are set up to aid students, parents, and admissions counselors through the increasingly complex college preparation process. These associations represent the four largest and most recognizable organizations in the field of college admissions. Using a code of college preparation curriculum terms developed by Dr. Carrie Vath and myself, the terms and variations of terms were counted from each association's entire web domain. The key terms from the developed curriculum included Financial Literacy (financial aid, scholarships, total cost of attendance, etc.), Major/School Exploration (student interests & strengths, institution strengths, career options, etc.), and Study Skills and Preparation (time management, motivation, personal responsibility, etc.) Each term or phrase was counted with duplications from the same sentence or paragraph omitted and terms or phrases that served as a link to another section dealing with the same topic counted only one time. If the term or phrase was a link to another section or other key words showed up those instances were counted separately.

#### Results

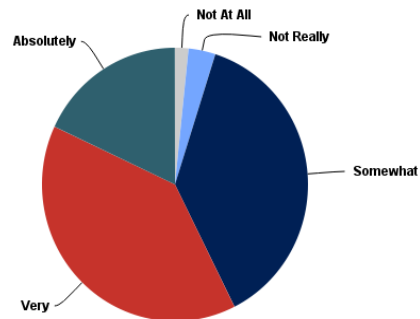
The idea of the content analysis was to see if the information across each association's web domain could be disseminated to assist building my own college preparation curriculum. If certain key terms or phrases showed up in higher numbers across all web domains, it was a safe bet that the content has greater importance and therefore deserved consideration as content needed for an effective college preparedness program.

## Surveys and Quizzes

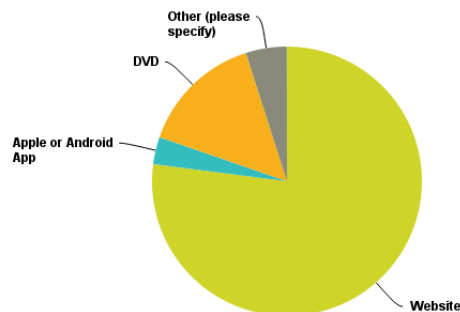
### High School Counselor Survey

What follows is a breakdown of the survey that was sent in May 2016 to every high school guidance counselor in Montana. I received 61 responses from a pool of 303. This was a much higher response rate than I expected and is, therefore, a very useful tool in determining the best mode of delivery and content of a college prep curriculum. The information gathered has been used to direct the creation of a website that high school teachers and counselors can use to implement a college preparation curriculum in their respective schools. Figure 2.1 leads this data set to prove that there really is a need for a pre-created college preparation program in the state of Montana. The most compelling data related to how to deliver the digital content of the program is shown in Figure 2.2. I asked the high school counselors in Montana what they thought the best way to teach the information in the classroom would be. That visualized data from the responses can be seen in Figure 2.3.

**Figure 2.1: How helpful would a pre-created college preparation lesson plan be at your high school?**

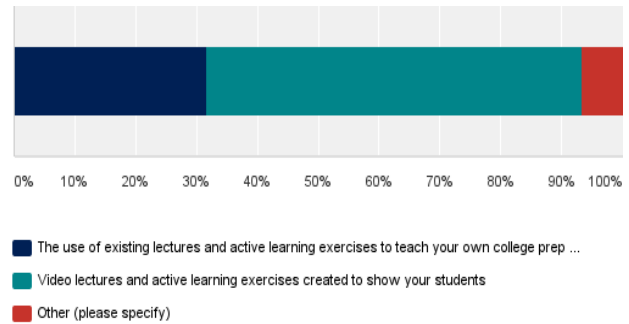


**Figure 2.2: What would be the best delivery method if you were to show video lectures and active learning exercises to your students?**





**Figure 2.3: Which method of delivery below would best serve students in the classroom?**



## Results

In figure 2.1, a total of 57.37% of respondents answered either “Very” or “Absolutely” and only 4.92% answered “Not Really” or “Not at All”. This assures me that I am on a path that would help high school counselors in their quest to deliver college prep material to their students. I must say that I was surprised that there were nearly 5% of respondents that answered that the services were not needed. I take this to mean that they might already have a college prep program or use other effective sources...namely, my current job with Reach Higher Montana (formerly The Student Assistance Foundation).

Figure 2.2 shows what may be the most overwhelming and compelling data I received from this survey, it is clear that counselor’s feel that a website would be the best form of delivery of a college prep program. 77% of respondents indicated that a website was the best delivery method and that is the most prevalent answer given for any of the questions I asked in the survey. At one point this graduate project involved a paper document as the product deliverable, now I know that a website delivery platform is absolutely the way to go.

The more I look at the question in figure 2.3, the more I am disappointed that I didn’t make a better separation of a pre-generated college prep program and content that could be used to build one’s own program. This data still shows me that these counselors do not necessarily want to teach their own college prep class, they would rather have something pre-generated to show students. For

this reason, I decided that recorded presentations should be made for each presentation. I have recorded myself, using Camtasia®, three of the presentations so far. All the “Other” respondents replied some form of wanting a combination of both.

### Student and Teacher Surveys

A pre-survey was conducted in the fall of 2016 with high school seniors at Butte Central High School. The pre-survey was used to set a starting point of their knowledge related to the following three areas: College major and institutional expectations, financing a college education, and high school to college transition. A series of questions related to college choice and major was asked to gauge the attitude of the students regarding importance of average class size, degree options, graduation rates, average starting salary of graduates, and the community in which the university is located. A Likert-like scale from 1-4 with 1 being not important and 4 being the most important was used to gauge significance. Next, a series of multiple choice questions was asked to determine baseline knowledge of financial literacy skills and college finance options. The last part of the pre-survey focused on high school to college transition. Again, a Likert-like scale from 1-4 was used to gauge the students’ knowledge and attitudes toward study skills, time management, and the differences between high school and college. I felt that a 1-4 scale was appropriate for these sections as I did not want to give the students the option for neutral answers regarding questions about importance and knowledge.

I chose to focus on student satisfaction when analyzing the data and Figure 2.4 shows a representation of that data. A Likert-like scale was also used on the satisfaction section; however, the scale was changed from 1-5 to give students the ability to give a neutral answer. I held that some level of neutrality was necessary regarding questions about subjective satisfaction. The student survey and teacher survey can be reviewed in *Appendixes 6: Prospect College Prep Student Survey* and *7: Prospect College Prep Teacher/Counselor Survey*.

Figure 2.4: 24 students were asked to rate on a scale of 1-5, with 1 (least satisfied) and 5 (most satisfied).

Question:	Answer Average:
How would you rate the overall content delivered in the course?	4.1
Were the in-class activities helpful?	4.0
Would you say the instructor of this course is knowledgeable about college preparation?	4.5
How would you rate your overall satisfaction with this course in terms of aiding your transition to college?	4.2

## Results

The post-survey was given to 24 students in the 2016 graduating class at Butte Central High School. There was a section of the survey where students were asked to evaluate the program's effectiveness. This is the method I chose to determine satisfaction with the content and delivery of the curriculum. A teacher satisfaction survey was also given to determine effectiveness in the content and delivery of the curriculum from a trained teacher's perspective. The information from the student and teacher satisfaction surveys are analyzed independently to get the best perspective on overall effectiveness. Students were asked to rate the overall content delivered in the course, the perceived knowledge of the instructor, the helpfulness of in-class activities, and their overall satisfaction. I am happy to report that the average scores for all of these questions was at or above 4.0. I do feel that I received reliable data from the post-survey; however, I do acknowledge that using a 1-7 scale to allow for "strongly agree" or "strongly disagree" may have added a useful layer of analysis to get at the students "true" feelings.

There was only one teacher satisfaction survey given in the spring of 2016, as there was only the one teacher for the course in which I gave my college prep presentations. The teacher had the same questions and the same 1-5 scale. She gave 5's across the board. This is likely due to her satisfaction with being able to relay and college prep information to her students, rather than her true satisfaction

with the content and delivery, maybe there was an element of both in her responses. Either way, more teacher satisfaction surveys need to be completed with a wider pool of respondents to get a true gauge of satisfaction from a teacher's perspective.

## Usability Testing

I chose to direct a qualitative usability test to improve the user experience of my website. This type of test allowed for a more informal test where I could sit with a single user or small group of users and give them tasks to complete. Users were encouraged to think out loud to give feedback on their experience in real time. This usability test was derived from lessons taught in the manual by *Rocket Surgery Made Easy* by Steve Krug. This particular usability test is a literal exercise in creating a dialogue between user and product as suggested by Kolko in *Thoughts on Interaction Design*. No data gathering is necessary; however, some notes about user experience are shared below. It is worth noting that the best practice for this method of usability testing calls for multiple iterations of the test with new test subjects. Due to time constraints, only one iteration of the usability test will be performed.

In this usability test I had three test subjects go through tasks or scenarios on the Prospect College Prep website. While they navigated the tasks, I asked for live feedback about their experience. Figure 2.4 lists the tasks or scenarios given to the test subjects.

**Figure 2.4: Usability Test Tasks**

**Task 1:** You are a high school counselor or teacher that is interested in teaching a college prep course for your students. How would you find information about the program?

**Task 2:** You are looking for a presentation to give to your students about Financial Aid. Can you navigate to the presentation for Financial Aid from the home page? If they are able - give prompt: Click "Sign In". Are they able to navigate to the Financial Aid presentation after the prompt?

**Task 3:** Starting from the Financial Aid presentation page: You would like to see an outline of the college prep lesson plan. Can you navigate to a list of topics covered in the program?

**Task 4:** Now you want to teach your students about taking dual credit courses. Please navigate to the AP & Jumpstart presentation.

## Results

The test subjects chosen for this usability test all made up what would be considered a representative demographic of the end users of my program. Test subject #1 was a former educator and test subjects #2 & #3 are current high school counselors in Montana. Task 1 was completed by each test subject in an identical fashion. They all went straight to the Curriculum Outline button on the homepage. They also all commented that the option they chose gave them the information for which they were looking. Every test subject was also able to complete Task 2 without prompt. Test subject #1 went to the Budgeting presentation at first, but commented that they were “moving a little too fast and clicked on the wrong icon.” Test subject #1 also gave some helpful feedback on the design of the curriculum content pages that will likely be developed after the completion of this master’s project. The tester made specific mention that the program nodes “looked good, but could be even more efficient and aesthetically pleasing if compiled in dropdown from the section titles.” Task 3 was completed in different ways by each test subject; however, each test subject did complete the task because they had already figured out where the curriculum outline was located. Test subject #2 gave the note that it would be nice to be able to navigate to the curriculum content from the curriculum outline. This is a simple and significant change that can really add to the overall wayfinding of the website. Task 4 was easy for every test subject because they had started to learn where things were located in the other tasks. Although, there was some confusion related to trying to figure out what heading AP & Jumpstart would fall under. Each user could guess correctly or use the curriculum outline to see where it would be on the content page. Overall, the usability testing proved to be very useful in clearing up some issues that I had not thought of when conceptualizing the user experience of the site. Many of the suggestions related to wayfinding and roadblocks were used in updating the live site. Specifically, navigating from the curriculum outline to the program content and making it easier to navigate back to content from any

page. I did not implement some suggested changes due to time constraints. One example being the recreation of the program content pages using dropdowns from section titles.

## Deliverable

A website has been developed as the most efficient way to get my college preparation program to the high school education professionals that do not have the time and/or resources to develop the program on their own. This conclusion was arrived at based on the feedback from the high school counselor survey data collected in May 2016. The website has a homepage that gives some information about the program and the main areas of focus. Interested high school education professionals will be given free access to the content. Future plans may involve a fee structure for access to the content, but initially the information will be at no charge. It is important to create a sign-up system to see who is using the product and to be able to contact them for feedback. When interested parties sign in they will have access to lesson plans focused around College and Major Exploration, Financial Literacy, and High School to College Transition. The lesson plans will contain PowerPoint presentations, Prezi presentations, active learning exercises, and notes for each lesson. Access to the program also has quizzes for some lessons and satisfaction surveys for both students and instructors to quantify effectiveness of the program.

To effectively control user interaction of the website, I closely followed the principles of home page design outlined by Steve Krug in *Don't Make Me Think* (2006). The first goal in the home page design was to clearly identify the mission. A quick answer is provided in relation to the central question: What is the website and for what can it be used? Next, I set up a clear hierarchy or overview of college prep contents and features available for high school education professionals. Teases or hints as to what is available to the user are implemented in the form of buttons that lead to curriculum overviews, section overviews, and helpful college prep checklists. Lastly, the website is built with a "Get Access"

function to allow users to set up a username and password to sign in for access to course materials.

These concepts are assembled to give the user easy entry points to build trust that the information

accessed through setting up a user profile are of high quality and utility. A full program node can be

viewed in *Appendix 5: Financial Aid Node from Prospect College Prep Website*. The screen grabs in the

following figures illustrate precisely the principles of design used for the website.

**Figure 2.5:**  
**Top of Home Page**



**Figure 2.6: Scrolled  
Down on Home  
Page**



## Program Outline

The program curriculum focuses on three main areas of college preparation: College and major exploration, financial literacy, and high school to college transition. Below is an outline of the main areas of focus and the topics covered under each of these areas. The presentations are built for each main area and cover all the topics mentioned. Under each presentation title are the learning outcomes for each presentation. A full program node is available for review in *Appendix 5: Financial Aid Node from Prospect College Prep Website* and a screen capture is included to show how the curriculum outline relates to the program content. There was a distinct approach through the methodologies used in this project to develop the curriculum content that follows.

### **College and Major Exploration**

- 1) The Right College for You
  - a. Academic Goals
  - b. Personal Goals
  - c. Average Class Size
  - d. Campus Environment
  - e. Cost
  - f. Campus Housing
  - g. Diversity
- 2) Academic Major
  - a. Major Availability
  - b. Learning Environment
  - c. Internships
  - d. Job Placement
  - e. Salary Expectations

### **Financial Literacy**

- 1) Financial Aid
  - a. Grants, Loans, and Scholarships
  - b. Unsubsidized vs. Subsidized Federal Loans vs. Direct PLUS Loan
  - c. FAFSA
  - d. School Specific Scholarships
  - e. Outside Scholarships and Other Free Money
  - f. Avoiding Scams
- 2) Budgeting in College
  - a. What is Included in a Budget?

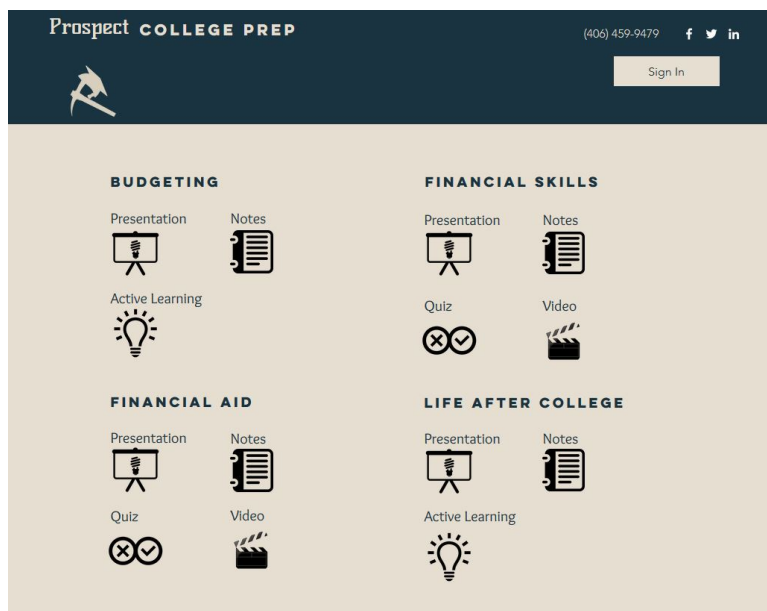


- b. Budgeting Tools
  - c. Financial Goals
  - d. Credit Cards
  - e. Checking and Savings Accounts
  - f. Use Student Discounts
- 3) Working While in College
  - a. Part-time Employment
  - b. Work Study
  - c. Odd Jobs
  - d. Job vs. GPA
- 4) Life After College
  - a. Expected Income
  - b. Dealing with Debt
  - c. Managing Money
  - d. Planning for Retirement

#### **High School to College Transition**

- 1) AP and JumpStart
  - a. Lower Cost Prep
  - b. Correct Courses for Intended Degree
  - c. What You May Want to Wait to Take in College
- 2) Study Skills
  - a. Memory Strategies
  - b. Critical Thinking
  - c. Group Study
  - d. Studying for Exams
  - e. The College Library
  - f. Different Learning Styles
  - g. Know Your Strengths and Weaknesses
- 3) Note Taking Skills
  - a. Active Listening
  - b. Guidelines, Outlines, and Strategies
  - c. Tutoring Centers
- 4) Time Management
  - a. Procrastination
  - b. Develop Routines
  - c. Creating a Schedule

**Figure 2.7: Financial Literacy  
Program Content Screen Grab**



## Chapter 3

### Work in Progress

This project exists because of my desire to help high school students prepare themselves academically and financially for higher education. However, the current design can be understood as the first phases of a longer-term project that will require additional assessment towards its articulated learning goals, as I explain in this section. The interest in this field started at the later part of my four years working in the Enrollment Services office at Montana Tech. My initial goal with this project was to build upon the knowledge and experiences of working in an admissions and financial aid office to help students regardless of the college they planned to attend. Midway through the MSTC program at Montana Tech, I was offered a job with Reach Higher Montana (RHM). The goal of that organization is very much in line with my initial goal to help students succeed in college. RHM tends to give more focus to financial preparation and my project spreads that focus across three areas of college preparation: College/major exploration, financial literacy, and high school to college transition skills. The deeper knowledge and experience across what I feel are the most important aspects of college preparation have opened opportunities for me to broaden my focus with RHM.

There are some challenges and prospects for expansion of the project. The first challenge will be monetization of my wider breadth of experience and the program I have developed. Also, there is the challenge of getting the message out about my program. Butte High school is currently on board to make my program part of their new AP and College Prep course that will be offered starting in the fall of 2017. As an employee of RHM, I feel obligated to brand the program I have developed to match that of RHM. The question is, how best to broach the monetary subject with RHM for use of my program? If RHM is receptive to paying for the use of my program, there may exist an opportunity to get the program into any high school in Montana that wants to participate.

The program likely needs to be expanded to offer college prep services to freshmen through seniors. The program as it exists gives valuable information to high school seniors about all aspects of the college prep process, but to be truly effective the process needs to start as early as possible with high school students. A case could even be made to start the program even earlier (elementary school or middle school) to develop predisposition to attend college someday. Developing a program for those age groups, specifically geared toward setting pre-dispositions is fertile ground for another graduate level project.

This project could be extended past a master's level project with the expansion to more age groups and by following students through their first year of higher education. Not following students through their first year of college has been a limitation of the project from the beginning as it was deemed to be beyond the scope of this master's project. I do feel that the best way to determine the effectiveness of the project would be through these two expansions of the program. In fact, much of the literature dedicated to college retention is focused on surveys and data collected from college freshmen. As a counter more closely related to my project, I was not able to find any work that has been completed following high school seniors that completed a college prep program through their first year of college. All the literature is focused specifically on underserved students and high school coursework that leads to students taking college remediation courses. Because I was unable to find literature dedicated to all-inclusive college prep and its effect on college retention creates an even stronger case that further study is needed on the subject. This is a key element to expanding the program to another student continuing the work as part of their master's project or the possibility of doctorate level study in college preparedness.

Along with expanding scope of this program would be more concrete assessment of learning outcomes. I have learning outcomes related to each presentation noted in the curriculum outline; however, further development of quizzes, and active learning exercises would be a necessary step to

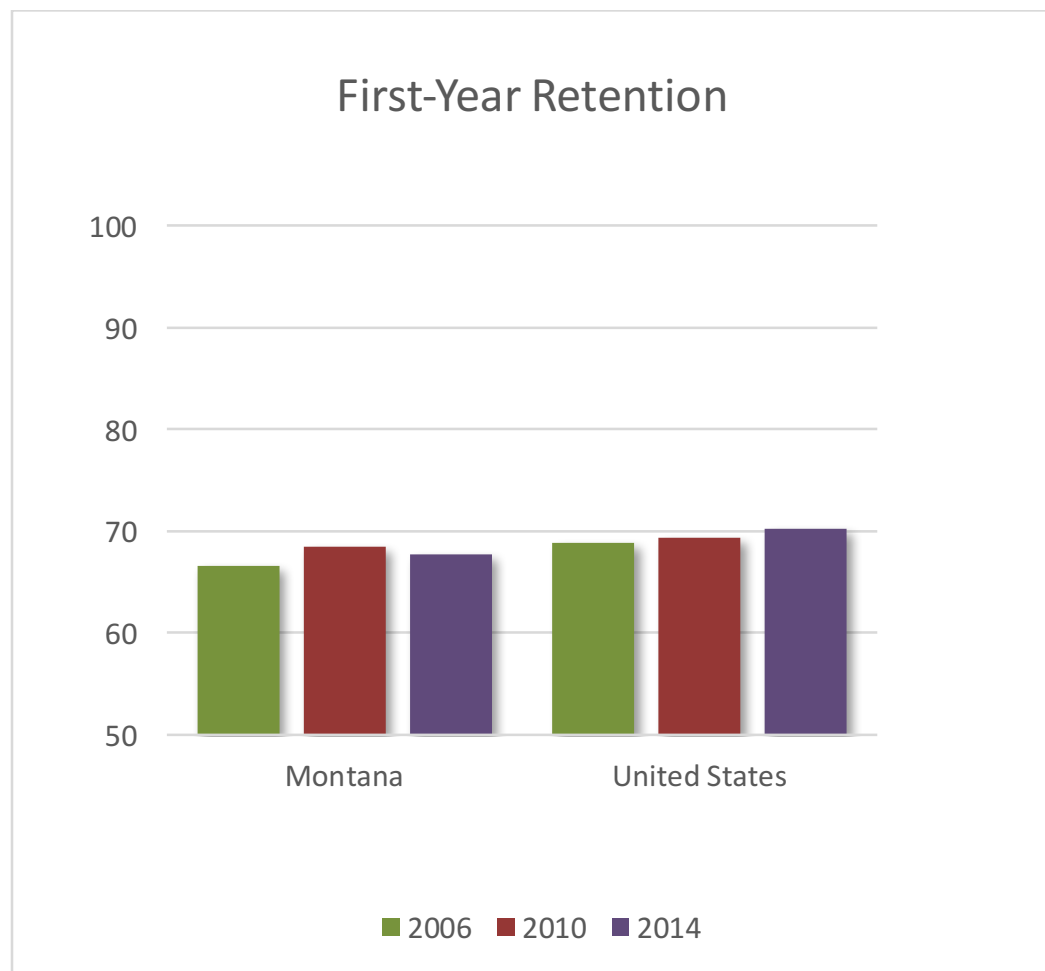
obtain data about the effectiveness of the program past student satisfaction. Also, pre and post-testing would need to be developed to determine what learning outcomes are being gained. It is difficult within a two-year master's program to do effective pre-post testing. The specific challenge that this project faced was that a significant amount of time needed to be dedicated to curriculum development. A student that continued this project or personal PhD coursework would allow for more time to develop the pre-test to be given in the fall semester, then conduct the post-test in the spring and have time to analyze the data received.

I also look forward to the opportunities that will likely exist to present my project and its findings to statewide college access, retention, financial aid, and high school counselor focused conferences. After that, I have set a goal to present on the topic of college preparedness at national conferences. The information I present to could entice leaders in high school and higher education to think seriously about implementing college preparedness programs in their communities, if we can find room in the student's curriculum or daily high school routine.

## Conclusions

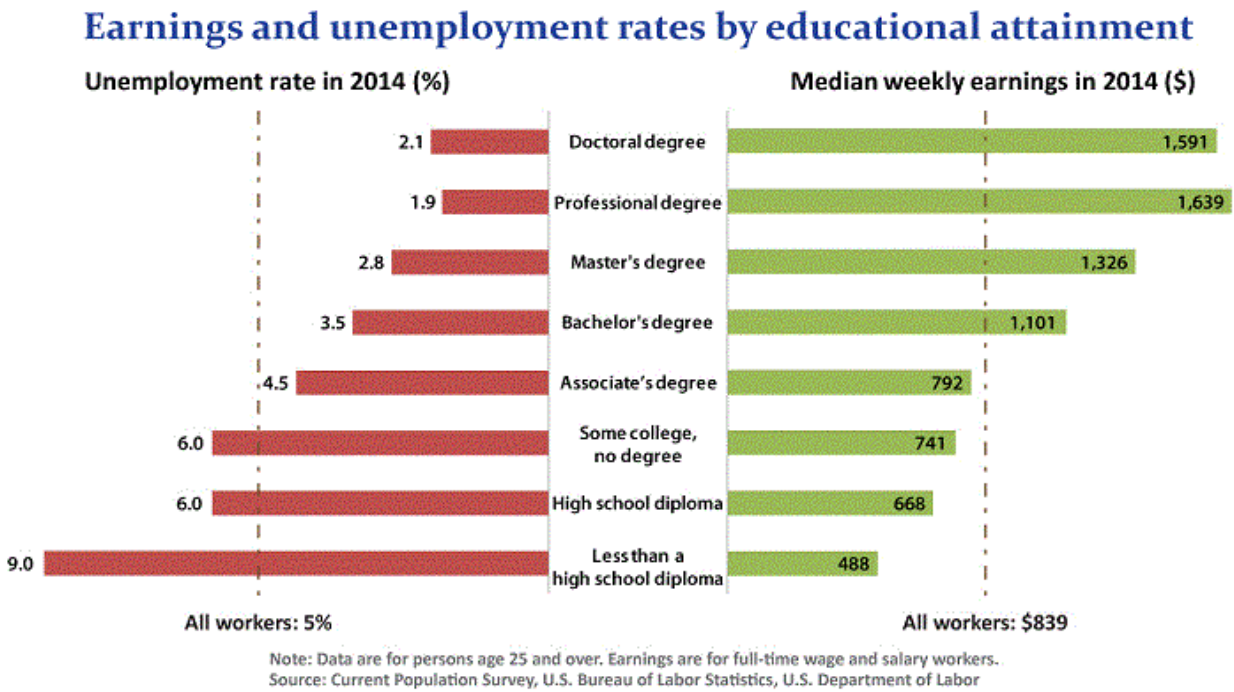
Retention of students is an important issue at most U.S. institutions of higher learning. It is equally important to get high school students past any barriers to college access. On top of these issues is the fact that most high school counselors in the U.S. do not have the time and/or resources to dedicate to developing college-ready skills or imparting critical college access information on their students. Effective college preparation services can help to alleviate the many concerns of college administration officials and high school counselors. This program was developed to meet that challenge.

## Appendix 1: First-Year Retention in Montana and the United States



National Student Clearinghouse Research Center, 2016

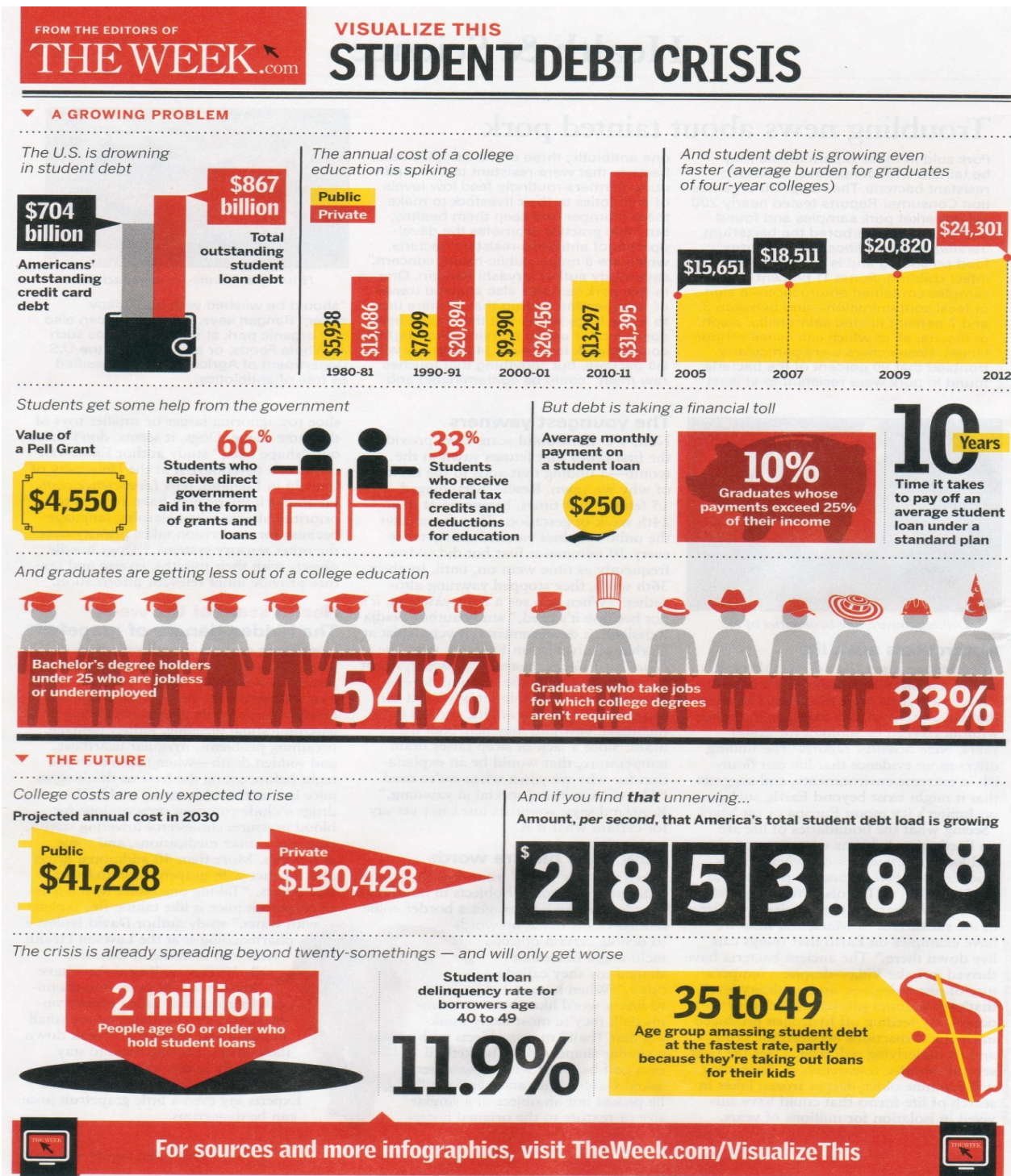
## Appendix 2: Earnings and Unemployment Rates by Educational Attainment



"Earnings and Unemployment Rates by Educational Attainment [Infographic]", U.S. Department of Labor, Bureau of Labor Statistics, 2014



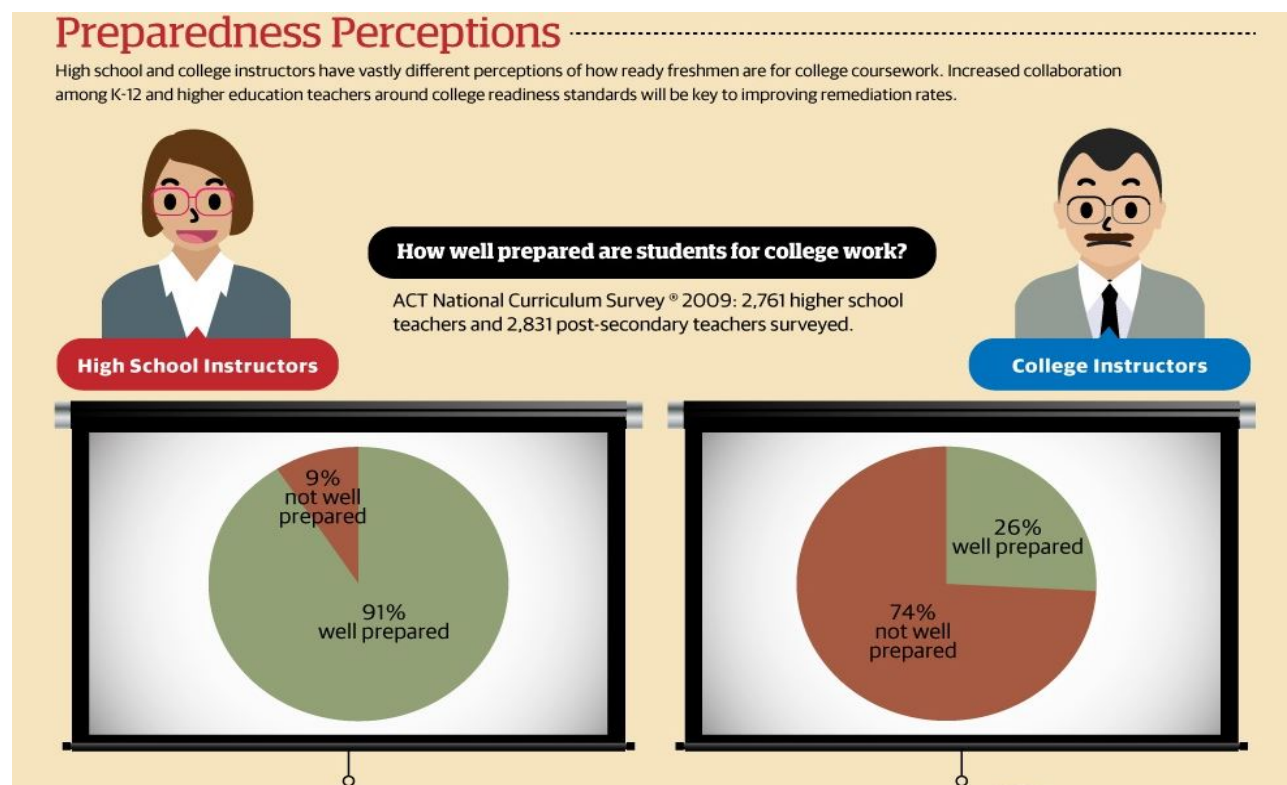
### Appendix 3: Student Debt Crisis



"Visualize This: Student Debt Crisis", The Week.com, 2012



## Appendix 4: Preparedness Perceptions



“Preparedness Perceptions”, Knewton, 2009

## Appendix 5: Financial Aid Node from Prospect College Prep Website

### Video Presentation:

<https://vimeo.com/212433590>

### PowerPoint Presentation:



Financial Aid.pptx

### Presentation Notes:



FinancialAidNotes.docx

### Quiz:

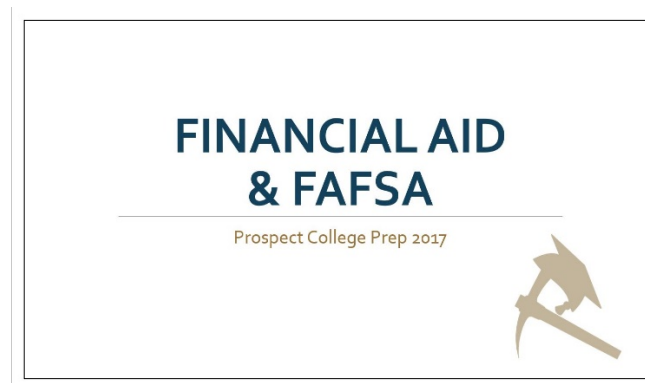


FinancialAidQuiz.docx

### Video Screen Grab

A screenshot of a video player showing a presentation slide. The slide is titled "Expected Family Contribution (EFC) & Financial Need". It contains two main sections: "EFC" and "Financial Need". The "EFC" section lists "Parent contribution (from reported income & assets)", "Student Contribution (from reported income & assets)", and "Expected Family Contribution (from reported family income & assets)". The "Financial Need" section lists "Cost of Attendance (provided by school)", "Expected Family Contribution (from the same at each school)", and "Financial Need". To the right of the slide, there is a sidebar titled "Total Cost of Attendance" which lists "Tuition and Fees", "Books and Supplies", "Room and Board", "Transportation", and "Personal Necessities". The video player interface shows the video is titled "Financial Aid and FAFSA Presentation" and is from "Cullen Gilbreath".

### PowerPoint Screen Grab

A screenshot of a PowerPoint title slide. The slide has a white background with a thin black border. The title "FINANCIAL AID & FAFSA" is centered in a large, bold, dark blue font. Below the title, the text "Prospect College Prep 2017" is centered in a smaller, brown font. In the bottom right corner, there is a stylized brown logo of a pickaxe.



## Financial Aid Presentation Notes

### Financial Aid and FAFSA

- Financial Aid for our purposes will encompass grants, loans, and scholarships
- Financial aid can come from the US Government, the state where you live, college you attend, non-profit or private organizations

### The Federal Pell Grant

- Unlike loans, it does not need to be repaid
- Based on: Financial need, cost of attendance, status as full-time or part-time
- Can only receive Pell Grant from one school at a time
  - This means if you want to take summer classes at another school to catch up, you will not be able to use your financial aid

### Work Study

- Allows for part-time employment on campus
- Need based and limited availability based on each school
- Like a grant – no need to payback, but you must work to receive the payment.

### State Grants

- Supplemental Educational Opportunities Grant (SEOG)
- For students with exceptional financial need
- Montana colleges require a FAFSA to be submitted to qualify for SEOG

### Federal Student Loans

- Unsubsidized, Subsidized and Parent PLUS, Perkins Loan
- Unsubsidized: Interest rate for 2015-2016 (4.29%), not financial need based, accrues interest while you are in school, 6-month deferment after you are out of school
- Subsidized: Interest rate for 2015-2016 (4.29%), is financial need based, does not accrue interest while you are in school, 6-month deferment after you are out of school
- Parent PLUS: Interest rate for 2015-2016 (6.84%), the loan is taken by the parent(s) to help the



## POP-QUIZ

### Financial Aid & FAFSA

Name: \_\_\_\_\_

1. Name three main types of Federal Student Loans:

\_\_\_\_\_

2. What does the acronym FAFSA mean?

3. When is the priority deadline for FAFSA applications in Montana?

4. What type of Federal Financial Aid is need-based and does not have to be paid back?

5. To how many schools (max) can you send the FAFSA?

6. How often do you and your parents need to fill out the FAFSA?

7. What tool do you and your parents use to upload taxes directly to your FAFSA?

8. What financial aid options are available outside of the Federal government?

## Presentation Notes Screen Grab

## Quiz Screen Grab

## Appendix 6: Prospect College Prep Student Survey



# Prospect College Prep

## Student Survey

### Part I

Please answer the questions below to the best of your ability. All surveys are completely anonymous and will be used for educational purposes only.

#### 1. With what gender do you identify?

- ☐ Male
- ☐ Female
- ☐ Other

#### 2. Do you plan to attend college at any level next year?

If yes, where do you plan to attend? \_\_\_\_\_

If no, do you plan to attend at any time in the next two years? \_\_\_\_\_

#### 3. Please circle the three most personally important topics covered in this course.

Financial Aid & FAFSA    Scholarships    Study Skills    Note Taking Skills    College-Level Reading  
High School to College Transition    Financial Literacy    Budgeting    Personal Wellness    Life After College

#### 4. How would you rate the overall content delivered in this course? (1) Lowest – (5) Highest

1      2      3      4      5

#### 5. Would you say the instructor of this course is knowledgeable about college preparation?

(1) Not At All    (2) Not Really    (3) Somewhat    (4) Mostly    (5) Absolutely

#### 6. Were the in-class activities helpful?

(1) Not At All    (2) Not Really    (3) Somewhat    (4) Mostly    (5) Absolutely

#### 7. Were the videos shown during the course informative?

(1) Not At All    (2) Not Really    (3) Somewhat    (4) Mostly    (5) Absolutely

**8. How would you rate your overall satisfaction with this course in terms of aiding your transition to college? (1) Lowest – (5) Highest**

1      2      3      4      5

**9. What did you like most about this course?**

---



---

**10. What did you like least about this course?**

---



---

**11. What suggestions do you have to make this course more effective?**

---



---

## Part II

For the questions listed below choose the answer that best describes the level of importance in making your college choice using the scale, (4) Very Important, (3) Important, (2) Somewhat Important, (1) Not Important.

<b>Major availability</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Location (city or state) of college</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Institutional academic reputation</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Total cost of attendance</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Scholarships</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Financial aid package</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Graduation statistics</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Job placement statistics</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Religious affiliation</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Size of student body</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Average class size</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Athletics</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Dormitory accommodations</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>
<b>Campus environment</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>1</b>

## Appendix 7: Prospect College Prep Teacher/Counselor Survey



# Prospect College Prep

## Teacher/Counselor Survey

1. How would you rate the overall content delivered in the course? (1) Lowest – (5) Highest

1      2      3      4      5

2. How would you rate the overall instruction in this course? (1) Lowest – (5) Highest

1      2      3      4      5

3. Would you say the instructor of this course is knowledgeable about college preparation?

(1) Not At All (2) Not Really (3) Somewhat (4) Mostly (5) Absolutely

4. Were the in-class activities appropriate for the grade level and course content?

(2) Not At All (2) Not Really (3) Somewhat (4) Mostly (5) Absolutely

5. Would you say that the content delivery was a good visual learning experience?

(1) Not At All (2) Not Really (3) Somewhat (4) Mostly (5) Absolutely

6. Please check what you think are the three most important topics covered in this course.

- ☐ Financial Aid & FAFSA
- ☐ Scholarships
- ☐ Study Skills
- ☐ Note Taking Skills
- ☐ College-Level Reading
- ☐ HS to College Transition
- ☐ Financial Literacy
- ☐ Budgeting
- ☐ Personal Wellness
- ☐ Life After College

**7. Which method below would best serve students in the classroom?**

- ☐ The use of existing lectures and active learning exercises to teach your own college prep course
  - ☐ Video lectures and active learning exercises created to show your students
  - ☐ Other, please explain
- 

**8. What would be the best delivery method if you were to use the information from this course to teach your own college prep course?**

- ☐ Downloadable Lesson Plans from a Website
  - ☐ Printed Guidebook w/ Lesson Plans
  - ☐ Both methods
  - ☐ Other, please explain
- 

**9. What would be the best delivery method if you were to show video lectures and active learning exercises to your students?**

- ☐ Website
  - ☐ Apple or Android App
  - ☐ DVD
  - ☐ Other, please explain
- 

**10. What advice can you give about the content delivered in this course? What else could or should be covered?**

**11. What advice can you give about the instruction given in this course?**

**12. What advice can you give about student engagement related to this course?**

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