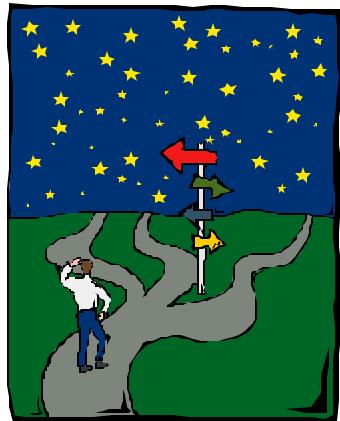


**Whitney Educational & Vocational Needs Assessment Study  
Final Report**

**August 30, 2002**



**Prepared for:**  
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## **Executive Summary**

The context of work in the 21<sup>st</sup> century is changing rapidly. The economy is moving from the industrial age to the age of digital information, a phenomenon that is pushing once high-demand jobs into decline and sending demand for new skills and occupations skyrocketing. Changes in technology are having tremendous effects on the way people learn and work by creating new job types and eliminating or transforming skills needed for existing jobs. Given the rapidly evolving context of the workplace, it is absolutely critical that educational and vocational training opportunities also evolve, so as to ensure that our young people are highly competitive and have the choices they want and need in the 21<sup>st</sup> century work environment. To ensure this, the Whitney Foundation funded an educational and vocational needs assessment study in Sheridan County designed to address two overarching questions:

***Question #1: What are the critical skills & competencies that our students need in order to be highly skilled and competitive participants of a 21<sup>st</sup> century workforce? To what extent are young people from Sheridan emerging with such skills and competencies?***

***Question #2: How can Sheridan County best prepare its young people to thrive and succeed in the 21<sup>st</sup> century workforce? That is, what kinds of integrated, comprehensive, and unified educational and vocational opportunities are needed to ensure that our young people are highly qualified and competitive in the 21<sup>st</sup> century workforce?***

Multiple data collection methods were employed to address these questions, including: 1) a comprehensive literature review; 2) compilation and analyses of existing data sources; 3) telephone follow-up surveys with former students from the three county school districts and Sheridan College; 4) phone surveys with employers of former students from Sheridan County; 5) focus groups with community organizations; and 6) in-depth phone interviews with a broad range of purposefully and randomly selected community members.

Findings from the study suggest a need to synchronize curriculum offerings available in Sheridan County with emergent labor-market trends. In particular, offerings in the areas of information technology and healthcare should be expanded at both secondary and postsecondary levels. Vocational programs in low-growth areas, such as agriculture, should be reexamined.

Data suggests that Sheridan County schools are doing an excellent job of preparing students for higher education, though students are much less prepared for the world of work. Given that the majority of students emerging from Sheridan County are in the workplace in the immediate years following school, there needs to be increased emphasis on giving students exposure to the real world and providing *all* students with the skills and competencies needed to succeed in the workplace. A continued emphasis on basic skills, such as writing and higher-level math skills, is needed, along with increased emphasis on computer literacy, higher-order problem solving and critical-thinking skills. Students need to be developing pre-employment and employability skills, including: leadership, managerial, and teamwork skills; self-initiative, motivation and the ability

to complete tasks independently; punctuality, attendance, and work ethic; organizational skills and general life skills (such as resume preparation and job interviewing).

In Sheridan high schools, a substantial minority of students lack direction and motivation. Steps need to be taken to help children think about the future early on, as is identification and early intervention with at-risk students.

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## **I. Project Overview**

The context of work in the 21<sup>st</sup> century is changing rapidly. Work is becoming increasingly global in the sense that it transcends geographic boundaries and is occurring on a world stage. Technological advances are having a tremendous impact on industry in terms of the work being done, how it is done, and how individuals live and conduct their careers. Given the rapidly evolving context of the workplace, it is absolutely critical that educational and vocational training opportunities also evolve so as to ensure that our young people are highly competitive and have the choices they want and need in the 21<sup>st</sup> century work environment.

The Whitney Foundation is supporting an educational and vocational needs assessment study in Sheridan County as a means of providing the data necessary to plan and ensure that the programs, opportunities, and services available to young people in Sheridan County *will* enable them to become active, productive citizens in this global workplace. This study was designed to address two overarching questions:

***Question #1: What are the critical skills & competencies that our students need in order to be highly skilled and competitive participants of a 21<sup>st</sup> century workforce, and to what extent are young people from Sheridan emerging with such skills and competencies?***

***Question #2: How can Sheridan County best prepare its young people to thrive and succeed in the 21<sup>st</sup> century workforce? That is, what kinds of integrated, comprehensive, and unified educational and vocational opportunities are necessary to ensure that our young people are highly qualified and competitive in the 21<sup>st</sup> century workforce?***

Multiple data collection methods were utilized to address these questions, including:

1. Literature Review(s).
2. Identification, compilation, and analyses of existing data sources.
3. Student follow-up survey.
4. Employer survey.
5. Focus groups.
6. Phone Interviews.

What follows is the final report that presents the findings and recommendations based upon all of these data sources. The report is organized as follows. First, the results from a comprehensive literature review that summarizes emergent labor market trends and critical skills needed are presented. Second is an overview of existing college- and district-level data provided by each of the sites. Third are the results of a follow-up study of all students leaving districts 1, 2 and 3 during the last three years. The follow-up was conducted on a random sample of students leaving Sheridan College during the last five years. Fourth are results from an employer survey in which employers of former Sheridan county students were contacted and asked about the preparation of students. Fifth is a presentation of the recurrent themes that emerged from the focus groups and phone interviews. The report concludes with a summary and recommendations.

## **II. Literature Review**

### ***Economic & Demographic Trends***

Despite current weaknesses, leading economists expect the U.S. economy to maintain a general upward trend through 2025. Even taking into account the troubling economic slowing during 2001, real GDP growth is expected to average about 3.0% per year during the next 25 years, as labor productivity advances about 2.5% annually and Consumer Price Index Inflation averages annual growth of about 3.3%. Unemployment is expected to remain below 5.0% after 2004, posting an average rate of 4.3% in the long-term outlook, while average hourly earnings advance about 4.7% per year.<sup>i</sup>

National and international population growth and demographic trends will continue to have direct repercussions on labor market activity. The U.S. population is expected to expand by an average 0.8% annually through 2025, down from the 1.0% annual growth posted during the last 25 years. Amid this, economists and labor representatives estimate that growth of the working-age population will slow even more, as baby boomers reach retirement age and expand the population of Americans 65 and older to represent about 19% of the total population by 2025, up from just 13% in 2010. As a result, growth in the population of consumers between the ages of 16 and 64 will slow from 1.1% during the last 25 years to about 0.8% per year between 2000 and 2014, and just 0.2% annually between 2015 and 2025. The seemingly obvious result of such demographic changes is that there will be fewer people vying for available jobs, though that does not take into account possible reductions in the total number of jobs available based on technologies that improve productivity and efficiency, which stand to bring the labor market closer to a break-even scenario. At the same time, the growing population of elderly consumers will increase demand for workers in industries related to health and elderly care.

In Wyoming, economic growth will slow somewhat during the next few years, including a reduction in the rate of job creation from an average of 1.5% between 1995 and 2000 to just 1.0% between 2000 and 2005, trailing the national average of 1.4% during the five years to 2005. (In making this comparison, it is, however, important to note that a job-creation rate of 1.0% is still fairly healthy for Wyoming, considering that its population growth is expected to be virtually flat at 0.4% during the five-year outlook period.) Gas production in Wyoming is expected to expand during the coming five years, while coal production remains strong, and livestock prices recover enough to help boost the state's suffering agricultural industry. Continuing a long-term trend, however, Wyoming's economic growth opportunities will continue to be constrained by its lack of economic diversification via its heavy dependence on volatile natural-resources industries. A case in point is the state's limited concentration of high demand high-tech industries, resulting from its lack of telecommunications infrastructure, its distance from other regional markets, and its lack of skilled laborers. Further constraining the state's economic growth prospects are its insufficient healthcare industry, inadequate air transportation service and lack of population centers.<sup>ii</sup>

*During the decade from 1998 to 2008, the number of non-agricultural jobs in Wyoming is expected to advance by about 12%, creating about 27,400 new jobs but representing a growth*

*rate of just half that of the prior decade.* During the same decade, about 26,870 people (more than 9% of the workforce) will reach retirement. According to studies by the Wyoming Department of Employment's Research and Planning Division, turnover will become an increasing source of job openings as the state's labor market shifts toward the service end, and national economic growth increases competition for Wyoming's labor pool. Retail trade and service industries will continue to depend heavily on young workers between the ages of 16 and 24 years old, as will the construction industry to a somewhat lesser degree. Meanwhile, mining, manufacturing, communications & public utilities, wholesale trade and government industries all will experience a significant loss of workers to retirement (thus opening opportunities up to younger professionals) as the industry currently employs a large percentage of workers between the ages of 45 and 54 years old. To date, it remains unclear how those companies losing employees to retirement during this time period will recruit successfully from a workforce that is less mature.

Compared to requirements of other states, however, Wyoming's labor force will demand less education and training during the decade through 2008. While about 21 of the 30 leading emerging occupations in the U.S. will, for example, require at least a post-secondary education, just 12 of Wyoming's 30 fastest growing occupations require education and/or experience beyond on-the-job training. Likewise, most of the net growth in jobs in the state of Wyoming during the decade will assign relatively low importance to technical skills deemed critical elsewhere across the U.S. Notably, as will be elaborated on later in this report, the jobs available in Wyoming will be relatively low-skill and low-paying as compared to other parts of the nation.

### *The New Economy*

Beyond the layers of numbers projecting growth rates for the economy and its population lie the economic trends that get to the heart of possibly the most meaningful labor-market analysis for the purpose of this study. Leading this procession of trends is the general and on-going *transformation of the U.S. economy from the industrial age to the digital information age, a phenomenon that has pushed once high-demand jobs into decline and sent demand for new skills and occupations skyrocketing.* The Bureau of Labor Statistics points to several economic conditions as responsible for changes in the skills composition of the workforce, among them technological change and globalization of production, as well as longer term changes in education, training, work experience and demographics.

Changes in technology require adaptation in the way people learn and work by creating new jobs and job types, while concurrently eliminating or transforming skills needed for existing jobs. And while the fate of some specific industry sectors could fall into question in the midst of this changing environment, one thing is clear: *Current and future occupational demands and technologies will require a workforce that is highly skilled, knowledgeable and, maybe most important, adaptable to an evolving and global landscape.* In addition to altering the makeup of occupational demands, this new economy has brought about the need for an equally "new workplace," which must be adaptable to quick and constant change and ever more efficient production, based on employment of the newest technologies.<sup>iii</sup>

### Occupations & Demand

Skills levels of the U.S. workforce have increased steadily since 1980, thanks to the compositions of industrial and occupational employment and changes in average skill requirements based on technology and the like. The Bureau of Labor Statistics (herein referred to as BLS) estimates that overall skill levels in the nation increased 1.1% between 1989 and 1997, anchored by a 1.4% increase in skills needed in the service-producing sector and a 0.2% gain in skills required by the goods-producing sector. *In general, workforce requirements in the years to come will increase demand for workers who can think analytically, read and process complex data and material, and use updated technologies efficiently.* This is all necessary if Americans are to remain competitive on a global basis.

During the decade through 1996, occupations experiencing the largest share of employment growth for workers completing post-secondary vocational training included *emergency medical technicians, licensed practical nurses, and secretaries* (except legal and medical). For workers earning associate degrees, the largest growth was for *registered nurses and health professionals and paraprofessionals*. Moving up the education ladder to workers with bachelor degrees, occupations accounting for the most significant growth include *teachers* (except special- and adult-education), *computer engineers and systems analysts*, and *management support workers* and *other professional workers*. And for those with work experience and a bachelor's degree, occupations experiencing the largest growth during the decade included managers and administrators (led by *financial managers, marketing, advertising and public-relations managers, and management analysts*). At the master's degree level, the largest growth was for *teachers and instructors, counselors, speech and language pathologists and audiologists, and psychologists*, while *biological scientists* registered the largest share of employment growth for workers with doctorate degrees.<sup>iv</sup>

Looking ahead, the service sector is expected to account for the bulk of the economy's new jobs in sheer number through 2025, while the manufacturing labor force will shrink further – continuing its slide from a 35% employment share in 1953 to 17.4% in 1990 to an estimated 9.9% in 2025. Analysts say that this continued decrease is not so much indicative of a suffering or shrinking industry as it is illustrative of technology's growing ability to change the composition of the labor market by improving manufacturing processes.

In Wyoming, *labor demand is heavily influenced by out-migration of workers, as Wyoming businesses continue to have difficulty competing in terms of wages and provision of opportunities. The five most popular destination states for Wyoming workers seeking better opportunities and pay since 1992 are Montana, Colorado, Utah, California and Texas – all of which also offer higher average wages than Wyoming does for most occupations.* In fact, analysis by the U.S. Department of Labor and the State of Wyoming indicates that wages in Wyoming are lower for nearly all occupations when compared to the national average and to wages paid in these five states. In Colorado, for example, high-demand systems analysts earn a striking 49.6% more than they do for the same position in Wyoming (\$29.21 per/hr as compared to \$19.53 per/hr), while medicine and health-services managers in Wyoming are paid an average of \$22.09 per hour, or about 12.2% less than the national average hourly wage of \$25.17. The list goes on, and the gap widens as the amount of education required for a job increases. A case in point is evident in an evaluation of demand levels for high-tech positions: While Wyoming is

expected to increase its information technology (herein referred to as IT) labor pool by a seemingly strong 23.5% between 1996 and 2006, increases in most destination states are tremendously higher (e.g., California, 71.4%; Colorado, 93.1%, and Texas, 56.2%) as well as in the U.S. as a whole, where the number of IT jobs is expected to skyrocket by 202.3% during the decade. In addition to projecting higher demand, businesses in all five destination states also pay higher average wages for IT workers.<sup>v</sup>

In further comparison to the U.S. as a whole, it appears that Wyoming will outpace the nation in terms of its growth in managerial and administrative occupations but will fall behind in growth in professional, paraprofessional and technical job demand – and in the combined relative demand. The greatest net gains in employment in the state during the decade through 2008 will be in jobs that require only on-the-job training. Leading this growth will be production, construction, operating, maintenance and material-handling occupations, demand for which are expected to advance a combined 40%, according to studies by the state's Department of Employment. Meanwhile, demand for professional, paraprofessional and technical workers will advance about 30% in Wyoming, the need for sales and related occupations with grow by about 27%, demand for service workers will increase by about 18%, the need for managerial and administrative help will expand by some 13%, and demand for agriculture, forestry and fishing workers will increase by a slight 2% to 3%. On the other side of the growth spectrum are clerical and administrative support occupations, demand for which will drop an estimated 20% during the same period. On a more specific job-by-job basis, projections for net growth and education levels required in Wyoming during the 10-year period are depicted in the following chart, based on figures from the Wyoming Department of Employment.

**20 Occupations with Fastest Net Growth Projections in Wyoming, 1998-2008**

Job Title	Net Growth (in # of positions)	Education/training required
Retail salespeople	1,452	Short-term on-the-job training
Registered nurses	895	Associate's degree
Secondary-school teachers	600	Bachelor's degree
Food preparation workers	508	Short-term on-the-job training
General managers and top executives	468	Bachelor's or higher degree, plus work experience
Carpenters	430	Medium-term on-the-job training
Maintenance repairers, general utility	377	Long-term on-the-job training
Restaurant cooks	372	Long-term on-the-job training
Electricians	312	Long-term on-the-job training
Janitors and cleaners, excluding maids and housekeepers	302	Short-term on-the-job training
Financial managers	277	Bachelor's or higher degree, plus work experience
First-line supervisors and managers—sales and related workers	256	Work experience in related field
Other helpers, laborers and material movers	253	Short-term on-the-job training
First-line supervisors and managers—construction and extractive	237	Work experience in related field
Combined food preparation and service workers	221	Short-term on-the-job training
Waiters and waitresses	219	Short-term on-the-job training
Food service and lodging managers	204	Work experience in related field
Delivery and route truck drivers	190	Short-term on-the-job training
Sales floor stock clerks	187	Short-term on-the-job training
Concrete and Terrazzo finishers	166	Long-term on-the-job training

*Source: Wyoming Department of Employment, Research & Planning, Outlook 2000.*

In comparison, nationwide occupational demand is expected to be greatest for professional, paraprofessional and technical positions, expanding by about 37% during the decade to 2008. Following, in order of highest projected demand growth on a national basis, are service occupations (20%), production, construction, operating, maintenance, and material-handling occupations (15%), sales and related occupations (13%), clerical and administrative support (12%), managerial and administrative (10%), and agriculture, forestry and fishing occupations, demand for which is expected to inch forward slightly.

***20 Occupations with Fastest Net Growth Projections Nationwide (U.S.), 1998-2008***

Job Title	Net Growth (in # of positions)	Education/training required
Systems analysts	577,000	Bachelor's degree
Retail salespeople	563,000	Short-term on-the-job training
Cashiers	556,000	Short-term on-the-job training
General managers and top executives	551,000	Bachelor's or higher degree, plus work experience
Truck drivers, light and heavy	493,000	Short-term on-the-job training
Office clerks, general	463,000	Short-term on-the-job training
Registered nurses	451,000	Associate's degree
Computer support specialists	439,000	Associate's degree
Personal Care and Home Health Aides	433,000	Short-term on-the-job training
Teacher assistants	375,000	Short-term on-the-job training
Janitors and cleaners, excluding maids and housekeepers	365,000	Short-term on-the-job training
Nursing aides, orderlies and attendants	325,000	Short-term on-the-job training
Computer engineers	323,000	Bachelor's degree
Secondary-school teachers	322,000	Bachelor's degree
Office & administrative support supervisors and managers	313,000	Work experience in related field
Receptionists & information clerks	305,000	Short-term on-the-job training
Waiters and waitresses	303,000	Short-term on-the-job training
Guards	294,000	Short-term on-the-job training
Marketing & sales work supervisors	263,000	Work experience in related field
Food counter fountain, etc.	247,000	Short-term on-the-job training

*Source: Wyoming Department of Employment, Research & Planning, Outlook 2000.*

*Probably the most striking change in the industrial structure of the U.S. workforce is the continued growth in demand for qualified workers in the computer and data-processing services sector, which is expected to add some 1.3 million jobs between 1998 and 2006. As a result, many of the jobs in highest demand in coming years will be directly related to computers and the Internet. Among those are computer engineers (who work with hardware and software development), computer support specialists (who provide technical assistance to software and hardware users), database administrators (who configure ways to organize and store data and generally manage computer networks), network operators, Web designers, and Web security specialists.*

The BLS expects average annual demand for IT workers to be about 200,000 between 1998 and 2008, with the three "hottest" IT job categories being technical support, database administration and computer programming. During the decade, a total of nearly 2 million technology workers will be needed to fill new jobs and ones vacated by IT employees leaving the field. Probably about 75% of these high-demand jobs will require at least a bachelor's degree, while the remaining 25% are expected to require at least an associate's degree.<sup>vi</sup> Nationwide, computer engineers will experience the highest *percentage* growth in demand, advancing 108% between 1998 and 2008, as demand for computer-support specialists jumps 102%, the need for systems analysts advances 94%, demand for database administrators jumps 77%, and the need for desktop publishing specialists increases 73%. In Wyoming, the number of database

administrators in demand is expected to skyrocket by some 72.7% between 1998 and 2008, while demand for systems analysts and electronic data processors jumps 71.3%, the need for computer programmer aides expands 67.7%, and demand for computer engineers jumps 34.6%.<sup>vii</sup>

<b><i>10 Occupations with Fastest Percentage Employment Growth in Wyoming 1998-2008</i></b>		
<b>Job Title</b>	<b>Net Growth (in percentage)</b>	<b>Education/training required</b>
Database administrators	72.7%	Bachelor's degree
Systems analysts/electronic data processing	71.3%	Bachelor's degree
Computer programmer aides	67.7%	Associate's degree
Respiratory therapists	58.7%	Associate's degree
Numerical control machine tool operators & tenders, metal and plastic	56.8%	Moderate-term on-the-job training
Insurance adjustors, examiners and investigators	55.7%	Long-term on-the-job training
Photographic processing machine operators and tenders	50.6%	Short-term on-the-job training
Plastic molding & casting machine operators and tenders	50.0%	Moderate-term on-the-job training
Veterinary technicians & technologists	48.2%	Associate's degree
Loan and credit clerks	43.1%	Short-term on-the-job training

*Source: Wyoming Department of Employment, Research & Planning, Outlook 2000.*

<b><i>10 Occupations with Fastest Percentage Employment Growth Nationwide (U.S.) 1998-2008</i></b>		
<b>Job Title</b>	<b>Net Growth (in percentage)</b>	<b>Education/training required</b>
Computer engineers	108.0%	Bachelor's degree
Computer support specialists	102.0%	Associate's degree
Systems analysts	94.0%	Bachelor's degree
Database administrators	77.0%	Bachelor's degree
Desktop publishing specialists	73.0%	Long-term on-the-job training
Paralegals and legal assistants	62.0%	Associate's degree
Medical assistants	58.0%	Moderate-term on-the-job training
Personal care and home health aides	58.0%	Short-term on-the-job training
Social & human service assistants	53.0%	Moderate-term on-the-job training
Physician assistants	48.0%	Bachelor's degree

*Source: Wyoming Department of Employment, Research & Planning, Outlook 2000.*

From its extensive research, the Occupational Employment Statistics division of the BLS has compiled a list what it deems “emerging occupations,” which basically refers to new occupations being created by changes in markets, regulations, technologies or society, as well as existing occupations in higher demand based on the same types of changes. The leading “emerging occupations,” in order of those reported most to least frequently by companies according to Standard Industry Classification (SIC) codes are as follows<sup>viii</sup>:

- *Administrative assistants*: These workers typically have more responsibilities than do traditional secretaries, with skills required including payroll, budgetary and personnel records, research, preparation of outlines and presentation materials, and supervision of secretaries or clerks.
- *Convention managers*: This category of workers includes meeting planners, conference planners, convention coordinators, and the like. Such convention-planning personnel act as liaisons between their companies or organizations and outside vendors offering services needed for large meetings or conventions. The need for convention managers appears to be most prominent in the membership-organization industry but also is reported in numerous other sectors, including business services, educational services, printing and publishing, social services, health services, transportation services, wholesale trade, depository institutions, insurance carriers, and various hotel, lodging and camp facilities.
- *Web masters, technicians and coordinators*: People interested in working as Web masters, site technicians and Web coordinators must know how to design and maintain Internet sites, skills in growing demand as Internet use expands in virtually all industries.
- *Environmental engineers, environmental and regulatory compliance managers, and environmental scientists and technicians*: The work of compliance managers includes directing scientists and technicians in the likes of hazardous materials removal and disposal, pollutant monitoring, and protection of on-the-job safety. Demand for these workers is most prominent in industries including paper and allied products, metal products, industrial machinery, electric, gas and sanitary services, construction and wholesale trade.
- *Computer managers, network administrators and systems managers*: These are among the most popular emerging occupations created by technological advances, particularly during the last decade. Skills required include hardware and software installation, configuration and maintenance of local area networks (LAN), wide area networks (WAN), or Web and intranet systems.
- *Bankruptcy specialists*: With demand highest in depository and non-depository institutions, holding and investment companies and business-service operations, bankruptcy specialists ensure that their companies collect as much as possible on debts when clients or debtors go bankrupt, and often assist collections workers and lawyers.
- *Desktop-publishing specialists*: Demand for workers with advanced computer graphics and word-processing skills are growing as individual companies meet efficiency and demand requirements by producing more of their own documents – such as brochures, reports, benefit books, advertisements and flyers – in house and on demand.
- *Utilization review coordinators*: This title covers nurses whose charge is to review hospital records to verify that appropriate treatment is provided. Among required skills are screening of admissions, calculation of statistics, and report writing.
- *Quality Assurance directors, engineers, technicians and coordinators*: Toward ensuring quality of a company's services and/or products, QA workers test raw materials, input components and finished products and develop quality improvement plans. Further, they evaluate new products and sometimes lead client surveys and handle customer complaints.
- *Consumer credit counselors*: Working in the nonprofit Social Services sector, consumer credit counselors must be trained to offer advice about clients' personal finances– including mortgages, general money management, and financial planning. In addition to negotiating repayment plans with clients' creditors, they also often lead public financial-management workshops.
- *Resettlement coordinators*: With increased immigration to the U.S., demand has increased for social-services counselors who help immigrants adjust by helping them find jobs, achieve legal-immigration status, learn the language, gain access to education, and the like.
- *Bus aides*: These workers do not drive buses but perform duties including monitoring of students on school buses, assisting in transporting of disabled passengers, and general boarding assistance. Among industries with highest demand for bus aides are health services, social services, educational services, child care, passenger transport services, and hotel and lodging industries.
- *Volunteer coordinators*: Non-profit organizations are the primary employers of volunteer coordinators, who must be skilled to organize, schedule, recruit and train volunteers for assistance in industries including education, membership organizations, social services, government, and residential care.
- *Credentiallers*: These workers are in highest demand in health services, business services, education, engineering, accounting, research and management services, and must perform tasks including obtaining

and verifying employment, education or licensing credentials for doctors, professors and others being considered for jobs.

- *Job coaches:* Job coaches are in particular demand for counseling and training of people with disabilities and people transitioning from welfare to the workforce. They provide training of new workers either on the job site or at special training centers and are most often employed in health, education and social services arenas.
- *Development directors, grant writers and fundraising specialists:* These professionals must be adept at fundraising tasks including maintaining contact with donors, coordinating fundraising campaigns or events, organizing and preparing direct-mail solicitations, and creating donor recognition opportunities. Demand for these skills is highest in trusts, social services, and membership organizations.

#### Critical Skills

According to the Human Capital Theory, companies generally pay more to people with more education and more experience because, all else equal, additional skills increase productivity. *At the same time, it is important to remember that jobs requiring higher-education degrees make up a relatively small share of total U.S. employment (22.1%) so that two out of every three jobs created between 1986 and 1996, for example, were in occupations that did not require a degree.*<sup>x</sup>

Even while development of academic skills such as reading, writing and arithmetic certainly remain critical to career success, they are no longer considered sufficient without competency in higher-level skills that take into consideration new workplace habits and attitudes. In addition to traditional educational and vocational skills, it has become critical that students develop a solid base of cross-functional skills – that they become *innovative critical thinkers* who learn to make connections and apply their knowledge to various and volatile workplace situations. Based on the Occupational Information Network developed by the U.S. Department of Labor, *the “problem identification” subcategory of skills under “Complex Problem Solving Skills” ranks as the specific skill in the most intense demand by employers across all occupational categories during the first decade of the new millennium.* Today’s workplace is generally less defined on job-by-job basis, so *employers need workers who can solve problems and take initiative and responsibility.*

In this discussion, it is important to note the continued importance of post-secondary education. BLS surveys and research by Richard J. Murnane and Frank Levy indicate that *many employers see completion of a bachelor’s or advanced degree as a “proxy” of sorts for development of not only academic skills but also for development of a strong work ethic and general analytical and teamwork skills needed in the modern workplace but not necessarily indicated by a high-school diploma.*<sup>x</sup>

The Secretary’s Commission on Achieving Necessary Skills (SCANS), appointed by the U.S. Secretary of Labor, divides the types of skills needed by workers today into three general categories<sup>xi</sup>:

- *Basic skills*, including such things as reading, writing, mathematics, listening and speaking.
- *Thinking skills*, such as creative thinking that allows generation of new ideas; decision-making skills whereby workers identify goals and barriers to reaching them and determine alternatives that take into consideration inherent risks; problem-solving skills that identify problems and create solutions; the ability to “see things in the mind’s eye” by organizing and processing data and graphics; knowing how to learn; and reasoning by way of discovering underlying principles and applying them to identified problems.
- *Personal qualities*, such as responsibility and perseverance; self-esteem, “sociability” or the demonstration of understanding, adaptability, empathy, and politeness in group scenarios; self-management; and ethics, or honesty and integrity. In Wyoming, in particular, it is considered important for employees and potential employees to develop social skills, including social perceptiveness and service orientation, in light of the fact that some of the state’s highest net occupational growth during the next few years will be in retail trade and services industries. And at their very base, development of these social skills requires mastery of basic skills such as active listening and speaking.

SCANS further identifies five workplace competencies required in the modern age. Among these are a person’s ability to *maximize resources*, including time, money, material and facilities, and human resources or proper assessment and distribution of skills and work. The second critical competency is related to employees’ *interpersonal skills*, or their abilities to work as members of a team, teach others, serve clients, practice effective leadership, negotiate agreements and work with a diverse pool of co-workers. The final three competencies include the ability to acquire and use *information*; to understand complex inter-relationships of *systems* and make changes to ineffective ones; and the ability to work with a variety and mix of *technologies*.

Based on a 1999 study of entry -level workplace skills compiled via a panel of hiring managers, human-resource specialists, business owners and educators, the most critical skills of prospective employees are no longer those measured by traditional means such as resumes, references and tests (though those certainly remain important), but instead have been determined to involve interpersonal relationships or high-order thinking skills.<sup>xiii</sup> A separate study by Jack Simonetti<sup>xiii</sup> surveyed 5,000 business managers to identify 10 key ingredients to career success in the new workplace. Those skills focus on the following experiences and performances:

- Excellent performance records.
- Communication skills.
- Interpersonal skills.
- Personality.
- Skills currency.
- Significant work experiences.
- Power.
- Ability to withstand pressure.
- Ability to make difficult decisions.
- Having a mentor.

Researchers also have identified other “real world” skills such as *work ethics and interviewing techniques as important skills for students to identify and develop before entering the workforce or post-secondary training arena.*<sup>xiv</sup> As a result, the most recent research suggests that softer

*skills or “people” skills, such as customer service, communication, problem solving, information retrieval, and the ability to engage in continuous learning, must be taught along with traditional workplace/educational skills.*<sup>xv</sup> In fact, emotional intelligence, cognitive ability and technical skills are believed to be among the greatest contributors to success in the modern age.<sup>xvi</sup>

Considering the leading 25 net growth occupations that the U.S. Department of Labor has identified in Wyoming, only “registered nurses” identifies science as a critical cross-functional skill qualification, and most give relatively little importance to social skills such as negotiation, persuasion, and instructing. Likewise, few high-demand occupations in Wyoming assign chief importance to technical skills such as technology design, installation, programming, testing, operation monitoring, equipment maintenance and repairing. The long and short of skills studies focused specifically on Wyoming skills demands conclude that too many of the job opportunities in the state are on track to remain in low-paying and low-skill positions.

#### *Effects of Information Technology on Skills Demand*

Skills required for some jobs have changed dramatically over the years, based on evolving technologies. As a result, learning has become a lifetime commitment. The nearly universal use of microprocessors has changed the work environment in factories and offices alike. By the year 2006, almost half of the U.S. workforce will be in positions that produce or use information technology (IT) products and services intensely. In this environment, formerly routine “unskilled” tasks are being delegated to automation, and demand is stepped up for higher-level skills by humans who must take on more complex approaches to their jobs because of technological knowledge and skills required to complete them. Drafters, for example, today require relatively sophisticated computer and engineering knowledge and skills vs. requirements, say 30 years ago, that they simply have strong abilities to draw well and visualize in three dimensions. Similarly, skills required of auto mechanics have changed dramatically because of technology, in that today’s qualified technicians must hone far more sophisticated technology skills to troubleshoot malfunctions in vehicles’ on-board computer systems.

Another upshot of technology is the shift in staffing mix, with fewer workers required for production and more needed for network management. “Although job titles frequently remain the same while innovations are taking place, over time, employers have less demand for manual dexterity, physical strength for materials handling, and for traditional craftsmanship,” one BLS study notes. “In the printing industry, for example, electronic composition methods have replaced long-standing craft skills, and employment of compositors and typesetters have declined sharply.”

#### *Effects of Globalization on Skills Demand*

Many U.S. corporations have shifted a good share of their production sites (requiring lower-skilled workers) to cheaper labor pools overseas, further decreasing demand for low-skilled workers in the U.S. and increasing demand for higher-skilled workers to coordinate international production efforts. At the same time, increases in immigration of low-skilled workers to the U.S. will continue to increase the labor pool and, thus, hold wages low in jobs requiring high-school diplomas or less.

#### Effects of Demographics on Skills Demand

During the coming 50 years, the population of the United States is expected to diversify dramatically and to grow by nearly 50%, reaching about 390 million in 2050, up from 275 million in 2000. With this growth will come demographic shifts that will affect demands and shortages of workforce size and skills. The aging baby boomers, for example, have achieved ever-higher levels of skills and, because of the numbers of professionals in this demographic, represent increased competition for new workers entering the labor force. At the same time, however, the aging of the baby boom generation will, in years to come, increase demand for occupations in industries related to things such as elder and health care.

In general, each of the last several generations have become more educated than the one before, increasing pressure for education and training to compete in the marketplace. And people with more abilities tend to acquire new skills more quickly than those with less training and skills. According to the BLS, the average educational level achieved by U.S. workers rose from about 10 years in 1950 to more than 13 years today. As a result, the share of hours worked in the U.S. by citizens without a high-school diploma declined significantly during the last 50 years, from 60% for men and 50% for women just more to than 10% each by 1997. On the other side of the coin, men and women with at least a college degree held a share of just 7% for men and 4% for women 50 years ago and increased those shares to 25% and 24%, respectively, by 1997.<sup>xvii</sup>

#### Skills Shortages

As skills requirements change rapidly, the challenge of recruiting well-trained employees with the professional and vocational skills required to perform their jobs adequately ranks among the biggest challenges facing all types of businesses in the 21<sup>st</sup> century. In general, the U.S. Department of Labor's National Alliance of Business, Inc. concludes that *too many adults are entering the workforce without the basic academic skills, and far shy of the technical skills, that they need to fill demands for ever-increasing technology based jobs. A plethora of research about skills competencies also seems to indicate that students not bound for college are ill-prepared for the modern workforce, pointing up the need for school-to-work programs that identify skills shortages and prepare K-12 students accordingly. A recent study about workforce education in the new millennium suggests that lack of career selection in middle schools and lack of interest in job training are at least partially to blame for current and upcoming shortages in qualified labor.*<sup>xviii</sup> In addition, U.S. students continue to lag behind their overseas counterparts in math and science skills, which are in higher demand as technologies require more developed skills in these areas.

The balance of supply and demand in reference to any specific skill certainly varies by region based on a variety of factors, including demographics, education levels and prominent regional industries. In Alabama, for example, supply is expected to meet demand in areas including registered nurses and elementary school teachers, while other regions or states are identifying these occupations as ones for which their demand is far outstripping supply. (In fact, the Bureau Labor Statistics estimates that 15 of the 30 fastest-growing occupations on a nationwide basis are related to health care.) In more general terms, however, we can identify the *types* of skills that

are in short supply across the nation – and globally, for that matter. Leading this list are cognitive and interactive skills balanced by the concurrent diminishing demand for traditional motor skills.

Because the global economy has enjoyed relative strength during recent years (despite a slowing in 2001), tighter labor markets have intensified labor and skills shortages, making the most prominent skills shortages coincide with the occupations that are in highest demand. As a result, shortages are expected to be particularly acute in the area of *information technology*, including database administrators, desktop publishers, computer systems analysts, computer support specialists and computer engineers. According to BLS employment projections, U.S. new demand for IT workers will reach more than 2 million between 1998 and 2008.

This technology skills gap, often referred to as “the digital divide,” is a global issue, too, with Europe, for example, expecting its shortage of information technology workers to skyrocket from 800,000 in 2001 to more than 1.7 million in just two years.<sup>xix</sup> On the technical side, employers are having the most difficulty finding potential employees who are well versed in those computer skills that also are in highest demand – such as Java, HTML, wireless and computer-networking skills. But it is again important to remember that today’s technology skills are not rooted only in direct computer skills but in development of what has been called a “doubling of skills,” or a high level of technical expertise and computer savvy *combined* with a grasp of softer skills, including a command of images, words and ideas – in short, a strong right-brain/left-brain skills combination.<sup>xx</sup>

Other leading skills shortages include skills related to the fields of *construction labor and craft industries*, as well as a dearth in the number of workers trained as *registered nurses, medical assistants, dental hygienists, teachers, paralegal workers, securities and financial sales, insurance coding and billing, and nannies*. In all cases, the skills shortages center not strictly on technical training, as employers are in search of employees who can not only perform the required tasks but who add value to their positions, thus contributing to the company’s bottom line.

### *Wyoming's Dilemma*

Due to its lack of economic diversification, Wyoming remains a state that effectively discourages relocation of businesses, thanks to a lack of skilled labor. According to DRI-WEFA economists, anecdotal evidence suggests that fully 70% of college graduates from Wyoming move away from the state because of a lack of employment opportunities and a scarcity of high-income jobs. In a cyclical manner, the out-migration of workers undermines the quality of the labor pool and the general availability of workers. With a growing proportion of low-paying service and trade jobs in the state, Wyoming now ranks 45 among U.S. states in terms of average annual wages, down dramatically from its No. 18 standing in 1985, before the oil bust.<sup>xxi</sup>

In this environment, one of the greatest challenges for Wyoming educators is to find an effective response to steady demand for low-skilled workers or educated ones willing to accept low wages rather than exiting the state to find work. The Catch-22 lies in fulfilling state labor-market demands while concurrently competing with other states and educational facilities to draw out-of-state students and workers to Wyoming.<sup>xxii</sup>

### *Approaches to Training*

Employers certainly are willing to pay more to workers who come in prepared with updated high-demand skills, but explosive development of information technology combined with globalization of the economy and industrial production sometimes makes it virtually impossible to keep the skills of the labor force updated. As a result, education, government and business representatives are working to develop effective strategies for ongoing skills-training programs. Through its "Mandate for 21<sup>st</sup> Century Literacy," for example, the U.S. Department of Labor concluded that one of the most effective ways for businesses to close the skills gap is via creation of partnerships or collaborative training efforts with other companies, IT organizations, or educational facilities.<sup>xxiii</sup> In addition, employers across virtually all industries (including an estimated 70% of all companies and 95% of all large corporations in the U.S.) have instituted on-the-job training programs both for new hires and ongoing employees who need to learn the latest techniques for accomplishing their jobs most efficiently. The constant across all industries is the realization that lifelong learning must occur – that is, training must be continuous in order to keep up with evolving technologies.

Considering projections for intense growth in IT workforce demands during the coming decade, it is absolutely clear that businesses, educators and governments must develop strategies to prepare workers to fill these positions. The 21<sup>st</sup> Century Workforce Commission, established by the U.S. Congress in November 1999 to assess future demand for information technology education and workers, used field hearings, site visits and general research to identify nine keys to building a workforce appropriately skilled for the jobs of the 21<sup>st</sup> century.<sup>xxiv</sup> Identified steps to meeting upcoming skills needs include:

- *Building “21<sup>st</sup> century literacy,” which includes a base of strong academic skills, as well as thinking, reasoning and teamwork skills, and proficiency in technology.* This will require improvements in and expansion of education and training programs to increase adult literacy and technology skills based on specific input about skills needs from companies seeking qualified employees. Accomplishing this will require forging new connections between basic education and programs such as ESL instruction and welfare-to-work programs. And for students who have reached upper grades without mastering basic reading and math skills, communities must offer accelerated interventions to get them back on track, as well as alternative programs for dropouts.
- *Exercising leadership through both local and regional partnerships.* This will require a high degree of business involvement and will entail developing customized approaches, strategies, assessments and progress measurements on community-by-community bases.
- *Forming learning linkages for youth by improving connections between high schools, vocational schools, post-secondary institutions and the workplace* so that students are both motivated to step up personal goals and have realistic views of real working environments.
- *Identifying pathways to jobs* by educating youth and adults alike about skills demands and the training opportunities to acquire said skills.
- *Increasing acquisition of IT skills* by encouraging more students to enroll in IT programs.
- *Expanding continuous learning* by providing opportunities for continuous upgrading of IT skills and knowledge as technologies continue to evolve.
- *Shaping a flexible immigration policy for skilled IT workers* to head off growing shortages of skilled employees.
- *Raising student achievement* by continuously improving and updating high school and vocational curricula to take into consideration evolving technologies.
- *Making technology access and Internet connectivity universal* by pursuing regional and national strategies aimed at making Internet connectivity and high-speed broadband and other technologies available to all training environments.

Employers and government agencies have approached training from various directions, as they look to build strong pools of technologically prepared employees. Among training approaches is that of the Massachusetts Software and Internet Council, which partnered with education and industry organizations to develop a 23-week training program that targets people who are looking to make career changes, are transitioning from the military to civilian employment, or who have been laid off by other industries.

#### *The Need for Coordination*

An overriding message in the discussion about training students for the workforce is the need for increased coordination of academic and vocational skills standards. Until recently, academic and industry representatives developed skills standards virtually exclusive of each other. Leaders in both education and vocational arenas have, however, begun to see the need for closer coordination. According to research printed in the Institute on Education and the Economy's *IEE Brief*, the long-held separatism of academic and vocational planning has “been judged to have negative social and pedagogic effects,” and coordinated development of academic and industry skill standards would strengthen preparation for work, as well as academic preparedness.

The IEE reports cognitive research indicating that relating learning to work can strengthen academic learning. *The point should not be strictly to prepare students for specific jobs but to*

*use an industry context to spur a clear understanding of the academic skills relevant to the industry or workplace.* “Well-chosen experiences in an industry context can give a coherence to academic studies that is difficult to create when subjects are taught independently and in the abstract,” the *IEE Brief* notes. The coordination of academic and industry skills standards and training become maybe most pointed when one takes into account the constancy of economic and technological change, which create skills (knowledge of probability and statistics, for example) that are not taught in traditional academic settings.

In short, neither employers nor educators can clearly specify the vocational or academic requirements necessary for the other’s training curriculum, but the two working together on an integrated approach to learning will be equipped to offer the best possible opportunities for students, educators, and employers alike. Upon collaborating for definition and measurement of academic skills within industry skill standards, the factions can develop academic standards that *are meaningful in that students who meet the standards can be assumed able to apply them outside of the classroom.* In the long haul, collaborators will be able to identify more generic skills and then develop effective teaching and assessment tools along the way, which can help identify the best ways to prepare teachers to use them.<sup>xxv</sup>

### **III. District and College Information**

This section of the report provides an overview of existing district and college-level data sent by the three districts and college in response to specific requests from PRES on behalf of the Whitney Benefits Needs Assessment effort. Two introductory comments are worth noting here. First, staff members from these institutions were very agreeable to work with. They understood the need for the study and, to the extent possible, attempted to fulfill all requests for data. Although data were not always available, much effort was made to collect and report the data as requested. Second, the types and qualities of data available varied across institutions. When possible and appropriate, comparisons are made across similar measures. Moreover, in order to make this section as concise as possible, summaries of information often are presented in narrative form rather than presenting the extensive raw data itself.

#### ***Goals & Planning***

A major purpose of this needs assessment is to plot potential directions that the schools and Whitney can take in further developing capabilities of Sheridan's young people. In light of this, it is useful to look at the extent to which existing district plans and goals overlap with results of this study.

For District #1, a major district goal pertains to meeting the needs of at-risk students through identification, establishing prevention and intervention programs, and training staff. The ways they have identified to accomplish this include: Identify and assess needs, reduce substance abuse, increase parental involvement, refine guidance and counseling services, enhance supportive relationships, coordinate community resources, and so forth. This is noteworthy given that one of the major findings of this report is that there is a small but significant population of 'at-risk' youths that may be falling through the cracks. Some of the recommendations of this study regarding this population match closely with the proposed activities already identified by District #1. That is, we need to increase parental involvement, provide these students with motivation and focus through enhanced guidance and counseling services, supportive relationships and perhaps mobilization of community resources. In addition, another finding of this report is that there is little information about at-risk and drop-out students available across all three districts. A starting point to address this lack of data is to implement systematic procedures to identify these youth early on. Thus, these goals of District #1 closely overlap with the findings of this study.

Another part of District #1's strategic plan is to "institute a continuum of career elements in the core curriculum." Specifically, the district wants to "increase student awareness of career choices/opportunities" beginning at the elementary level. At junior high/middle level, it hopes to increase opportunities for job shadowing and mentoring experiences, and to have students start occupational exploration with counselors and teachers. The recommendations section of this report also includes promoting more real-world experiences through such activities as apprenticeships, mentors, job shadowing, and so forth. Notably, Tongue River High in District #1 is the one high school in Sheridan County where a majority of vocational students already participate in such activities.

For District #2, one of the focus points was under career & technical education – specifically, to increase opportunities for vocational certification and to develop/implement community- and business-generated programs. Another goal was to increase collaboration with Sheridan College via concurrent enrollments, summer school programs, technology collaboration, and calendar alignment. The district has established milestones for these areas for the next three academic years, beginning with a comprehensive program review of current vocational offerings. Similar to District #1, Sheridan High School has also instituted programs to address the issues of at-risk students and to promote career awareness and exploration among high school students.

Based upon its own review of available college data, Sheridan College has already noted in planning documents that it might consider offering a technical baccalaureate degree. The examination of emergent job trends and available coursework in Sheridan County conducted by this report corroborates that the college should indeed consider offering such a degree. In this same planning college, Sheridan College mentions that it is looking at a High School + 1 degree, whereby high-school students could earn college credit toward a degree while still in high school and thereafter graduate from Sheridan College after just one year of college. Sheridan College also has established the following goals: Increase the number of high-school graduates who go to the college; increase success and transition; engage students earlier to go to postsecondary alternative; update programs; and increase computer literacy.

### ***Program Offerings***

The table below provides a summary of vocational-course offerings available across Sheridan County school districts:

	NUMBER OF COURSES OFFERED						
	AG <sup>1</sup>	Trades & Industry	IT <sup>2</sup>	Business, Accounting, Marketing	Life Skills <sup>3</sup>	Journalism	FACS
Sheridan #1: TRHS	10	1	7	1	2	-	3
Sheridan #1: BHHS	3	3	7	2	1	1	-
Sheridan #2	12	15	10	7	4	-	12
Sheridan #3	5	1	-	-	-	-	-

The table above shows some areas of incongruence between course offerings and emergent job trends, as identified in the prior literature review. First, there are no offerings in health, which is one of the largest areas of occupational growth, both locally and nationally. Second, the number of offerings in agriculture is quite high, given that this area is projected to have negligible, if any,

<sup>1</sup> Includes animal science, plant science and specialized Ag Welding.

<sup>2</sup> Includes such classes as word processing, computer applications, networking, etc.

<sup>3</sup> Includes consumer ed, parenting, life skills classes

growth in years to come.<sup>4</sup> On other fronts, there likely could be bolstering of information-technology offerings – particularly in Sheridan #3, where there are none, but also in Sheridan #2, which has a smaller number of offerings than Sheridan #1 when you take into account the size of the student body. In addition, this study found that, particularly in District #2, student use of technology for purposes other than word processing is rather limited – although this could very well be a byproduct of equipment availability or obsolete equipment. Finally, one of the findings discussed subsequently in this report is that students should have a better idea of real-life situations, suggesting continued demand for life-skills types of courses that emphasize practical application.

In terms of certification programs available in the three districts, Districts #1 and #2 both offer Cisco certification, though a relatively small number of students actually reach certification levels in District #1. District #2 also offers the ProStart certification associated with the hospitality industry – which matches nicely with our finding that the service industry will continue to be an area of relatively high demand, especially in Wyoming.

Sheridan College offers certificates of completion and degree programs in a variety of vocational fields, including accounting, legal, medical, aquaculture, business, dental assisting & hygiene, diesel technology, drafting, hospitality management, machine-tool technology, massage therapy, police science, practical nursing, railroad operations, and welding. Advanced-technology programs do not appear to be a major area of concentration at this time. The healthcare offerings at the college in the area of nursing, nursing assistants, massage therapy, and dental hygiene correspond with the anticipated demands of the job market. Applications currently exceed the number of students admitted in the nursing and dental hygiene programs. Specifically, the nursing program gets about 30 applicants per year and, in 2002, accepted 18 students.<sup>5</sup> The dental hygiene program averages about 80 applicants per year and accepts 24 annually.

#### ***Concurrent Enrollment & AP Offerings***

In terms of concurrent enrollment with Sheridan College, District #1 has the largest proportion of students involved in dual-enrollment type coursework, especially Tongue River High School. That school currently offers about 11 concurrent enrollment courses with Sheridan College, in areas including hospitality management, advanced agriculture, CISCO, and a “tech block.” It also offers correspondence courses with other universities in such areas as literature, composition, and history. In Tongue River High School alone, about 35 students per year participate in dual-enrollment classes.

District #2 has focused on working with the college to expand concurrent enrollment offerings available to its student body. In fact, this is one of the district goals. In the 2000-2001 school year, the district had approximately 74 students involved in concurrent enrollment courses

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<sup>4</sup> Notably, an argument can be made that offerings should be made available to students purely out of interest – so if they are interested in agriculture they should have this made available regardless of the limited career prospects available in this area. On the other hand, if a substantial proportion of vocational students go directly into the workforce as our data suggests, then it might also be argued that it would be desirable to give them marketable skills that are in demand.

<sup>5</sup> Barriers to growth include the ability to place students in facilities and lack of staffing to maintain the required student/teacher ratio.

related to accounting, hospitality management, and agriculture (up from 54 student in the prior year).

District #3 offers one concurrent enrollment course per year, which has an average of five students. It also offers English and math courses for college credit. Its working relations with the college are quite good, though distance is a factor in its ability to take advantage of the resources available at the college.

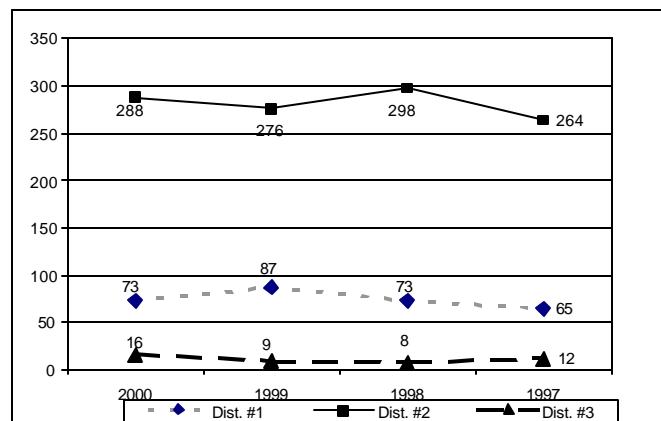
In terms of Advanced Placement (AP) offerings, District #2 is the only district to offer AP classes and does so extensively, with 11 AP courses available.<sup>6</sup> In 2000-2001, 202 students took AP courses. Out of that, 128 students actually completed the AP test.

#### **Enrollment Trends**

Overall, across the three school districts and Sheridan College, enrollment is staying flat to decreasing slightly. This is consistent with statewide demographic trends discussed in Section I of this report.

<b>Total District Enrollment</b>			
	Sheridan #1	Sheridan #2	Sheridan #3 <sup>7</sup>
2001-2002	885	3,250	113
2000-2001	895	3,247	117

**11<sup>th</sup> Grade Enrollment Over the Years By District**



\*Counts taken in October of each year.

<sup>6</sup> In Spanish, French, English Literature, calculus, computer science, chemistry, biology, environmental science, physics, American history, and psychology.

<sup>7</sup> A substantial proportion of the Sheridan #3 student population come from outside of the district (over 1/4 at the high school).

Sheridan College has remained relatively stable at 2,750 students over the years, including all campuses.

SPECIAL POPULATIONS BY DISTRICT: 2000 2001				
District	High School	Free/Reduced Lunch	IEPs*	Dropouts
Sheridan #1	Frigg Horn	12%	7%	2%
	Tongue River	37%	11%	4%
Sheridan #2	Sheridan High	12%	10%	7%
Sheridan #3	Arvada-Clearmont High	21%	4%	5%
Statewide Average		22.7%	11%	7%

\* IEP refers to individualized education plans that are required for students with any type of disability.

It is important to note that free- and reduced-lunch statistics are notoriously unreliable at the high-school level due to lapses in self-reporting. At a districtwide level, free- and reduced-lunch rates range between 26% to 32% for districts #1 and #3. Based upon elementary free and reduced counts, the proportion of economically disadvantaged students in Sheridan #2 is substantially higher at 35% to 45%.

#### ***Assessment Data***

##### **District Assessment Data**

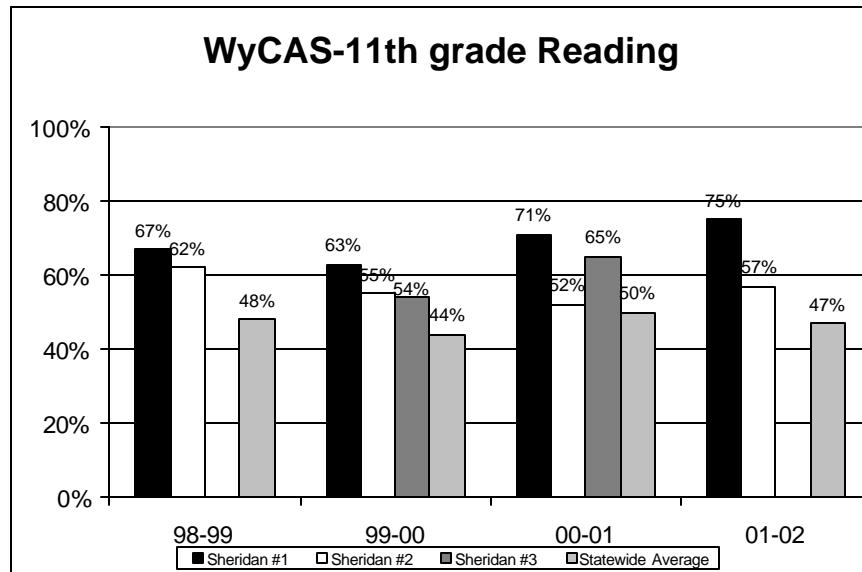
With all districts participating in the State WyCAS and Terranova tests, assessment results are reported together in this section. Each district also uses unique local assessments to monitor the progress of its students, however, as the content of these assessments vary markedly, they are not reported in this section.

The figures below display the percent of 11<sup>th</sup> grade students who were rated as proficient or advanced on the WyCAS by district, during the last four years, accompanied by the statewide average.<sup>8</sup>

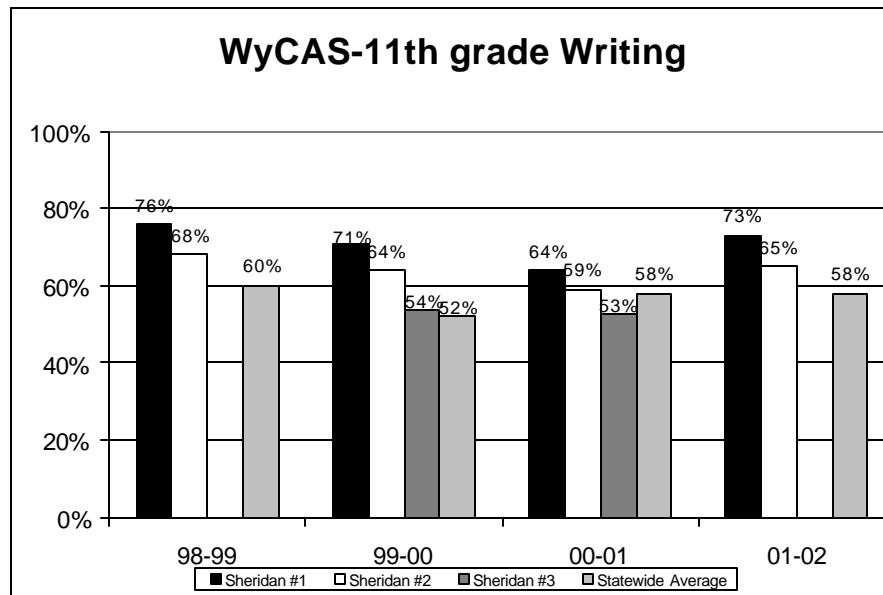
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<sup>8</sup> 1998-1999 & 2001-2002 data was unavailable for Sheridan #3.

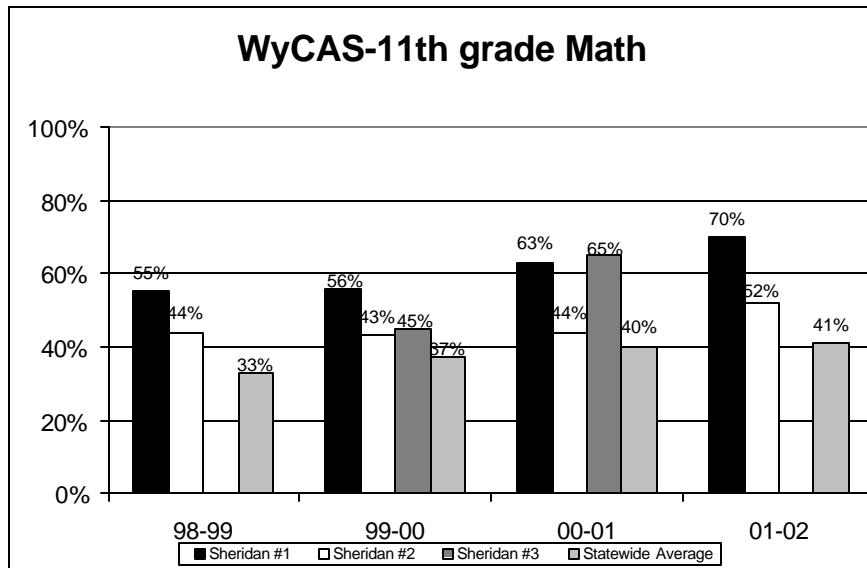
As shown below, all districts performed at a reading level above the statewide average. In addition, Sheridan #1 had the highest percentage of proficient/advanced students over all four years, with an increasing trend during the last three years.



Sheridan #1 and Sheridan #2 scored higher in writing than the statewide average during the period. Both districts saw a decline in 1999-2000 and 2000-2001 but their rates increased by 9% for Sheridan #1 and 6% for Sheridan #2 during the last school year. Sheridan #3 had the lowest percentage of students who were proficient or advanced in writing and fell below the statewide average during the 2000-2001 school year.



Results again show that students in all districts are outperforming the statewide average in math. Sheridan #1 has seen steady improvement in test scores during the last three years (a 14% increase) and has had the highest percentage of students proficient/advanced in math. Sheridan #2 had a stable rate between 1998 and 2001, though last year's results showed a significant improvement (8% increase). Sheridan #3 also saw a big boost in test scores (20%) between 1999-2000 and 2000-2001.



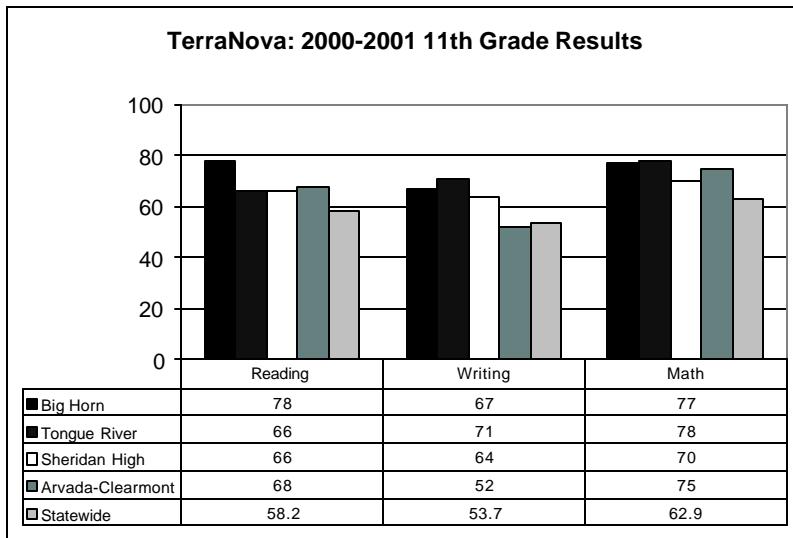
In comparing district performance across different subject areas, we find that while performance is good relative to the rest of the state, it should be noted that all three districts perform lowest in math. District #2 appears weaker in reading than in writing on the WyCAS assessment, whereas District #3 had fewer students proficient in writing than in reading in 2000-2001.

The TerraNova 11<sup>th</sup> grade results<sup>9</sup> for the 2000-2001 school year are presented as Median National Percentile Ranks below. A percentile rank refers to the percentage of students in the norm sample that the student outscored. As shown, all schools except Arvada-Clearmont scored above the statewide average. Arvada-Clearmont's percentile rank for writing was 1.7 points

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<sup>9</sup> According to a Wyoming Department of Education press release, "based on analyses comparing the scores of TerraNova and WyCAS, a proficient score on WyCAS would be equivalent to TerraNova scores ranging from the 65<sup>th</sup> to 75<sup>th</sup> national percentile ranks, depending on the specific grade level and content area."

below that average. On reading and math, however, students in Arvada-Clearmont performed better than those in Sheridan #2, and above the statewide average. Consistent with the WyCAS results, Sheridan #1 schools of Big Horn and Tongue River scored higher than the other high schools across all three areas.



On the Terranova, all high schools except Tongue River perform worse in writing than it did in other subject areas. Sheridan #1 has particularly strong performance across all three areas -- reading, language, and math, and examination of performance across grade levels indicate that WyCAS proficiency levels actually tend to go up as students advance into higher grades – a pattern contrary to most school districts.

The WyCAS and Terranova, while providing us with some information, do not tap many of the higher-order thinking skills and applied skills necessary to be competitive in today's workforce.<sup>10</sup> Indeed, very few districts or colleges have assessments that tap such skills – thus making it difficult to ascertain the degree to which students are leaving school with such skills. With that caveat in mind, however, there are a few data sources that we can access to provide us with information in this regard. First, since Districts #1 and #2 receive state Carl Perkins Vocational Funds, they are required to participate in the Wyoming Career & Technical Assessment (WyCTA). Because this assessment was derived from the SCANS report,<sup>11</sup> it is more aligned with the types of skills and competencies required in the workplace. A second source of information is from the follow-up survey of students and employers, discussed later in this report.

<sup>10</sup> Refer to the Literature Review Section of this report for a listing of the critical competencies needed.

<sup>11</sup> SCANS refers to the report published by the Secretary's Commission on Necessary Skills in which summaries of the critical skills and competencies desired by employers were published.

For the WyCTA, all students are assessed in the areas of applied communication, math, and affective & thinking skills. Students are assessed on applied technology, pre-employment skills, and employability skills only if they have had the opportunity to demonstrate such skills during the school year. Thus it is relevant to look at the proportion of students not assessed in these areas as this suggests that these students were not engaged in these types of activities during the 2000-2001 school year. The table below summarizes the average proportion of students assessed in each of these three areas:

Average % Assessed in WyCTA Optional Areas				
	Tongue River High	Big Horn High	Sheridan High	Sheridan College
<b>Applied Technology</b>	89%	64%	53%	71%
<b>Pre -Employment Skills</b>	89%	72%	17%	76%*
<b>Employability Skills</b>	89%	100%	35%	94%

\* On the resume, job-application, and job-interview strand under Pre-employment skills, fewer students were assessed (61%).

The above table shows some clear patterns. A large majority of students are not assessed pre-employment and employability skills in District #2<sup>12</sup> and a substantial portion of Big Horn High, Sheridan High, and Sheridan College students are not assessed on technology. Although this represents the findings of one assessment only (and thus should be interpreted cautiously), this limited data suggests that these may be areas that need to be emphasized more.

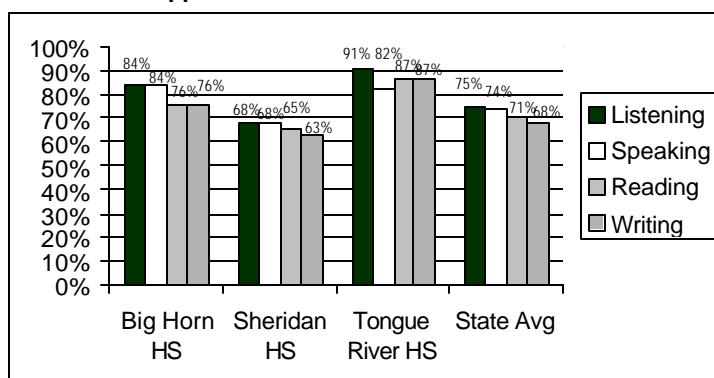
The following graphs illustrate 2000-2001 WyCTA assessment results for students at Sheridan High School (N=187), Tongue River High (N=45), and Big Horn High (N=25). Results are reported out of those students who were assessed in each area.

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<sup>12</sup> This is somewhat surprising given that all students in District #2 are required to complete a Career Plan as part of their graduation requirements, however, there are several dimensions on the pre-employment and employability rubrics that may not be illustrated via a career plan. It is also important to note also that the WyCTA is administered to vocational concentrators only. Thus, students who are not “vocational” may or may not have had opportunities to attain such skills (there is no assessment data on non-vocational concentrators to speak towards this, however). For example, SHS offers a career development class which enrolls 120 to 150 students per year – including a large proportion of non-vocational students.

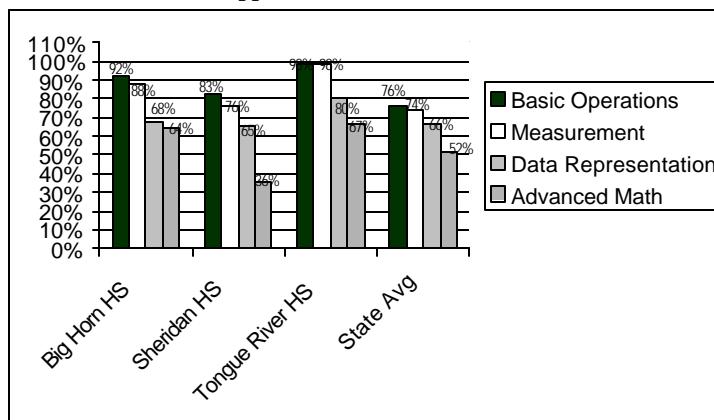
**2000-2001 WyCTA Assessment Results:  
Sheridan #1 & Sheridan #2**

**Applied Communication: % Proficient**



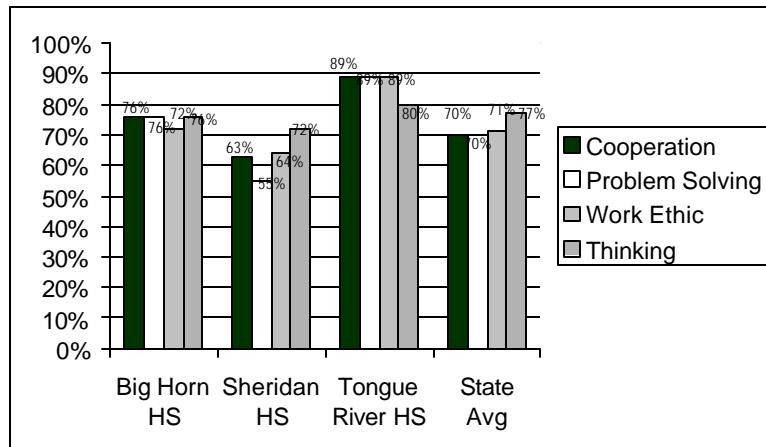
On average, students at Tongue River tend to perform somewhat higher than those at Big Horn High School. Writing is a relative area of weakness for Sheridan High School, according to this assessment – and consistent with the Terranova results, as well.

**Applied Math: % Proficient**



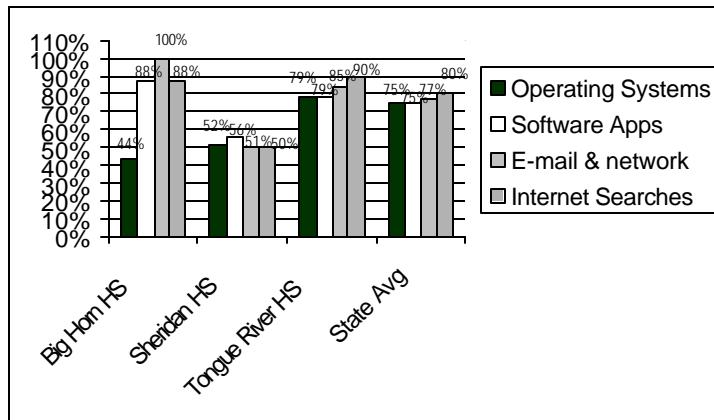
Higher-order advanced math skills and the ability to represent and interpret data visually appear to be relative areas of weakness.

### Affective & Thinking Skills: % Proficient

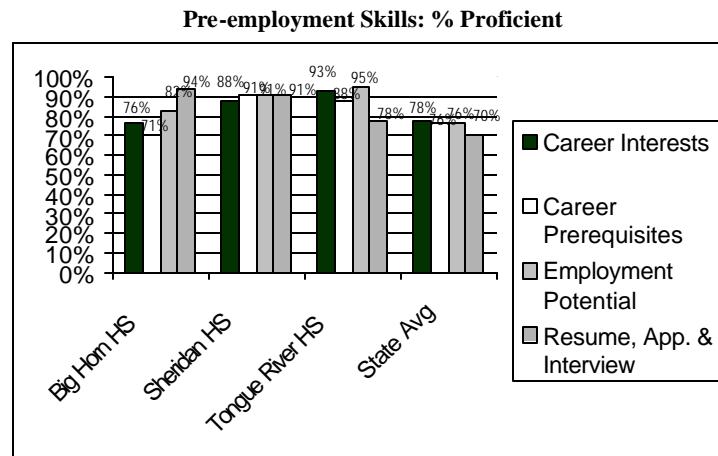


The Affective & Thinking portion of the WyCTA does tap some of the higher-order thinking and soft skills deemed so important by employers. Problem solving, in particular, is an area that could perhaps use further development in SHS students. This finding is corroborated by the results of the employer survey.

### Applied Technology: % Proficient



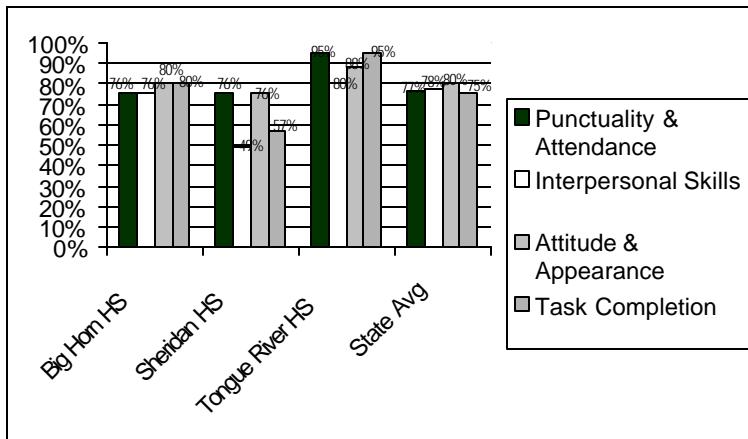
Technology is an area wherein Sheridan High Schools continue to need more development. As noted elsewhere in this report, focus-group results indicated that SHS students use technology mostly at home and for basic tasks such as word processing.



Pre-employment skills refer to such things as career exploration; looking at the requirements and skills necessary for such careers and evaluating one's own compatibility to such careers; preparing resumes; filling out job applications; and participating in interviews (for a copy of the assessment rubrics see Appendix C). Note that results from the follow-up survey suggest that it is imperative for all students to possess these skills, as the vast majority of students go directly on to employment following school (either employment solely or in combination with continuing education).

Although proficiency levels are quite high for those assessed on the pre-employment rubric, it is noteworthy that a large proportion of students are not even assessed on pre-employment skills, especially in Sheridan #2.

### Employability Skills: % Proficient



Employability skills are assessed only if students have participated in some type of real-work experience during the year. It refers to how the students performed on their job and includes such dimensions as interpersonal skills, attitude, appearance, task completion, punctuality and attendance. Task completion and interpersonal skills are relative areas of weakness at Sheridan High School – and results of the phone interviews also suggested this.

Another result from the qualitative data-collection portion of this study (and discussed subsequently in this report) is the idea that students in Sheridan County need to have more realistic ideas as real-world experiences. They need to see the applications of what they are studying, and some students need to get more focused. One venue for accomplishing this may be to increase exposure of students to real-work experiences and, as indicated by the table below, vocational concentrators at Tongue River High are most likely to participate in such types of experiences, followed by Sheridan High School<sup>13</sup>. According to data reported on the WyCTA, it appears unusual for Big Horn High students to participate in such activities.

% Participation in Work Experiences: 2000-2001 WyCTA			
	Big Horn High	Tongue River High	Sheridan High
Job Shadowing	0%	85%	48%
Mentorship	0%	87%	0%
Apprenticeship	4%	77%	0%

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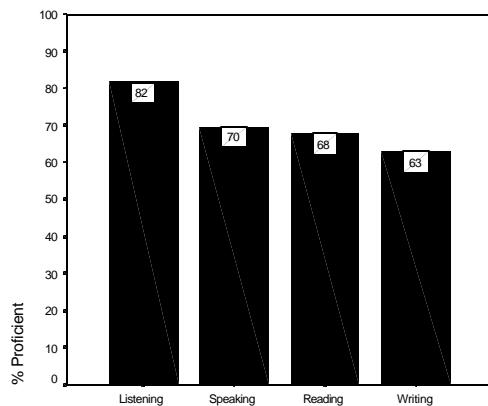
<sup>13</sup> Although Sheridan High School does offer the Professional and Community Experiences program (PACE) which, although not falling under the strict definition of mentoring or apprenticeship, is available to all students and allows for them to be monitored through a workplace setting.

#### *Sheridan College Assessment Data*

Sheridan College is similar to other community colleges in Wyoming, in that assessment is largely instructor-driven. As a result, little data that can be aggregated at an institutional level is available on student skill attainment. The only assessment given systematically to all students at the community college is the Compass test, which is diagnostic and can't be used to monitor progress or attainment. In addition to the Compass, the only institutional level assessment data available are for students who participated in the WyCTA. Thus, what we know about what Sheridan College students can do is based upon one assessment only and thus is quite limited.<sup>14</sup>

A total of 209 students from Sheridan College participated in the WyCTA in 2000-2001.

**Applied Communication Skills: Sheridan College**

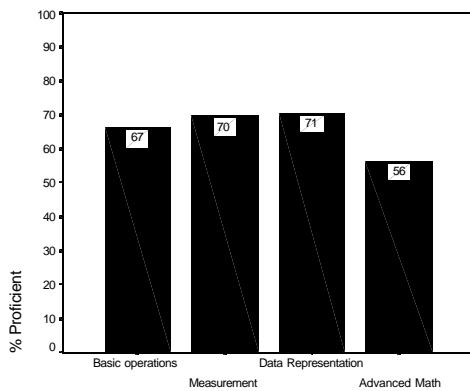


Sheridan College students are less likely to be proficient in writing than in other applied-communication strands.

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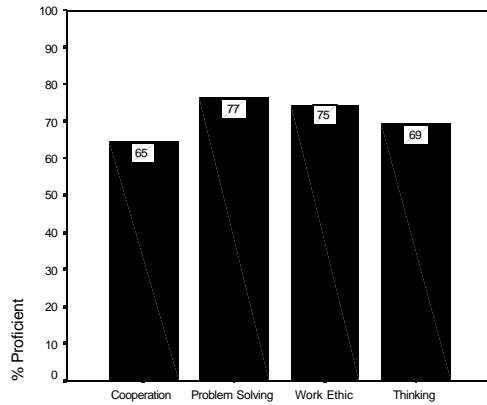
<sup>14</sup> The degree to which instructors at Sheridan College take the WyCTA seriously and/or are familiar with such types of performance assessments may also vary.

### **Applied Math Skills: Sheridan College**



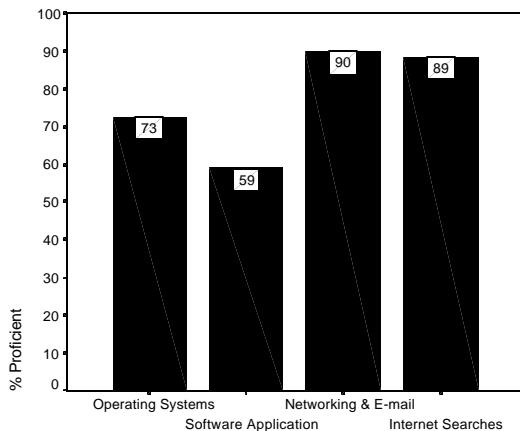
Data representation, while a weakness at the secondary level, does not appear weak at the postsecondary level – compared to the other mathematics strands.

### **Affective & Thinking Skills: Sheridan College**



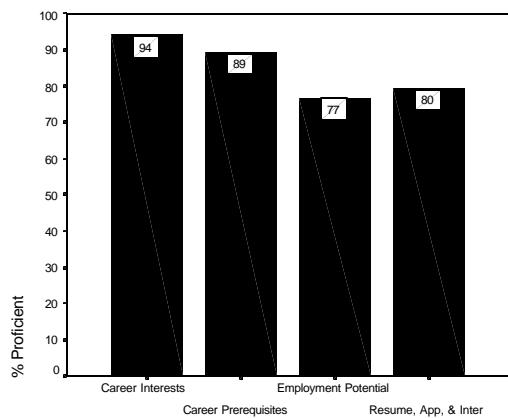
Slightly more than one-third (35%) of the Sheridan College vocational concentrators who participated in the WyCTA were not proficient in the area of cooperation. Employer surveys also point toward group and leadership skills as an area that could be further developed in Sheridan College students.

### **Applied Technology: Sheridan College**



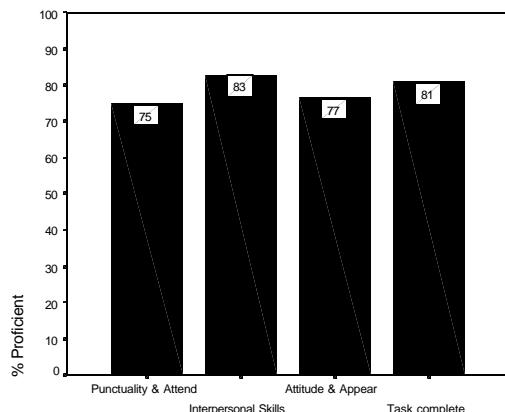
About 41% of vocational concentrators at Sheridan College did not achieve proficiency in skillful use of a variety of software applications. This finding is corroborated by follow-up survey results, wherein employers most often had to provide on-the-job training in the area of technology.

### **Pre-Employment Skills: Sheridan College**



Sheridan College students perform quite well on pre-employment skills. It should be noted, however, that 39% of vocational concentrators were not assessed in the area of resume, job applications, and job interviews.

### Employability Skills: Sheridan College



The vast majority of students at Sheridan College are assessed on employability skills. Thus, real-life work experiences appear to be an integral part of the Sheridan College training programs.

#### ***Climate Survey Data***

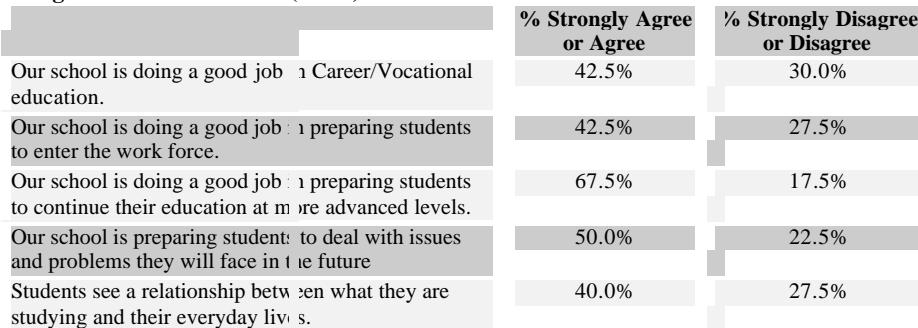
Districts #1 & #2 have climate survey questions that are pertinent to this study. Although District #3 did conduct a climate survey, it did not include any questions related to the focus of this study, so its results are not included here.

#### **Sheridan #1 Climate Surveys (Spring 2001)**

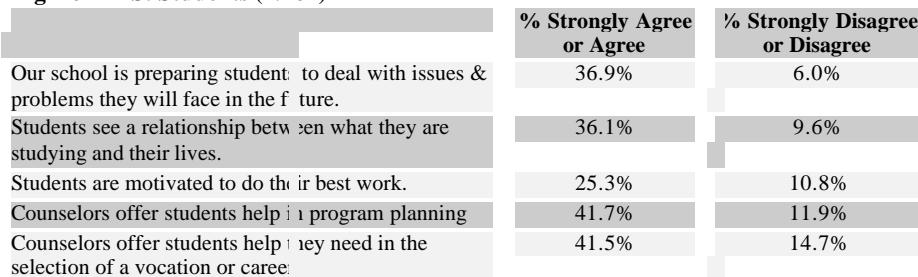
##### **Tongue River HS: Students (N=152)**

	% Strongly Agree or Agree	% Strongly Disagree or Disagree
Our school is preparing student to deal with issues & problems they will face in the future.	55.3%	13.8%
Students see a relationship between what they are studying and their lives.	39.5%	23.0%
Students are motivated to do their best work.	45.4%	24.3%
Counselors offer students help in program planning	53.6%	19.0%
Counselors offer students help they need in the selection of a vocation or career.	45.7%	19.8%

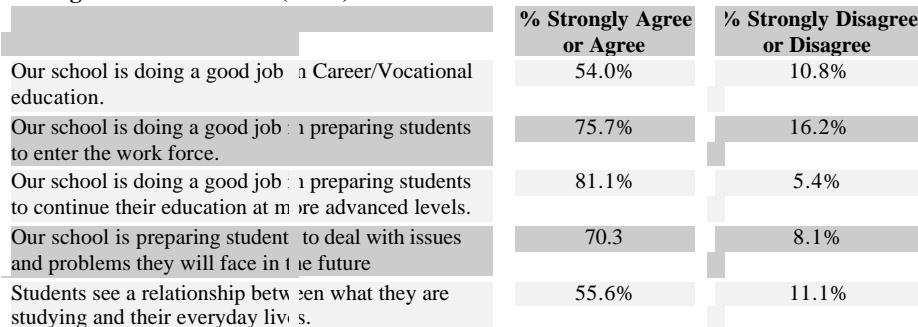
It is noteworthy that a minority of students agreed or strongly agreed with the statement that they could see a relationship between what they are studying and their lives (this was also true of parents – see below). Subsequent findings in this study also point toward the need to make learning relevant and applied for students.

**Tongue River HS: Parents (N=40)**

Whereas a majority of Tongue River parents feel that students are well prepared to pursue their education at more advanced levels (68%), a smaller proportion feels that students are prepared to enter the workforce (43%).

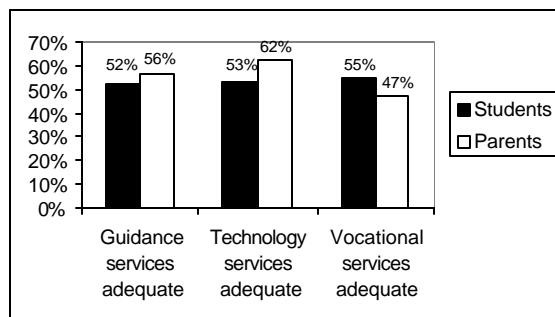
**Big Horn HS: Students (N=84)**

The relatively low proportion agreeing with statements regarding the relevance of schoolwork to daily lives and motivation of students are consistent with other findings cited later in this report.

**Big Horn HS: Parents (N=37)**

Parents of Big Horn High School students are more likely to believe that their children are being well prepared both for higher education and the workforce as compared to parents of Tongue River High School students.

**Sheridan High School: Fall 2001 Climate Survey**



Parents of Sheridan High School students are less likely than students to see vocational services as adequate. Conversely, parents are more likely than students to feel that guidance services are adequate.

#### ***Existing Follow-up Information***

Sheridan #1 conducted a follow-up survey of the high school classes of 1999 and 1998. Tongue River accomplished a 32% response rate and Big Horn High a 41% return rate to a written survey in 1999. Half of 1999 Tongue River graduates who responded to the survey said they went directly to college after high school, while the other 50% joined the workforce instead. Of the Tongue River class of 1998, 69% went to college and 31% to work.

Of 1999 Big Horn High graduates, 57% of respondents (4 out of 7) went on to college, though 86% (6 out of 7) also were working. In 1998, a response rate of 36% resulted in 10 surveys returned, of which nine former students said they went on to some sort of higher education or additional training and half of whom were currently employed.

Comments across both the Tongue River and the Big Horn surveys indicated that former students believed they should have “tried harder” and applied themselves more, and that more counseling would have been helpful to prepare them for life after high school. Thus, students themselves recognize the importance of motivation or lack thereof, also cited as a finding elsewhere in this report.

Sheridan #2 has not done any sort of follow-up of students during the last five years. The district does, however, collect data about student aspirations just before they graduate. Based upon self-reporting of 213 graduating seniors from the class of 2001, 29% (N=62) planned to attend a two-year college, with the majority of these (46) planning to attend Sheridan College, 32% (N=69) planning to attend a four-year college (of those 33 planned to go in-state to the University of

Wyoming (48%)), and 34% (N=74) planned to bypass post-secondary education and enter the workforce directly. As pointed out in follow-up results documented later in this report, it is noteworthy that a substantial proportion of SHS students (approximately one-third) do not go directly on to higher education, yet the perception is that the high school is somewhat geared toward college-bound students.

It is noteworthy that 106 out of 225 students (47%) who had attended Sheridan High School were placed in remedial English at Sheridan College between the years of 1999-2002. An even higher proportion of students (58%) were placed in remedial math.

Sheridan #3 has between eight and 10 graduates per year. Of the 27 graduates during the last three years, 19 (70%) went on to college, 19% directly into employment (N=5), 7% to technical school (N=2), and 4% (N=1) into the military.

Sheridan College periodically conducts surveys of graduates with the Wyoming Community College Commission and also conducts community and high-school scans in which they tap into the plans, needs and factors considered by potential students considering attendance at a two-year college. They also recently conducted a survey of Sheridan employers. Findings from the college's high-school scan in April 1999 also indicated that 60% of high school students planned to work part-time or full-time during the first year after their graduation -- again pointing to the need for students to be prepared in critical workplace skills. A consistent finding across these surveys was that students rated computer literacy as an area in which they believed they needed improvement. Notably, surveys are written and response rates are fairly scant.

#### ***Section Summary***

Some inferences can be made based upon data summarized in this section. First, although the academic preparation of most students is sound, assessment results suggest that writing<sup>15</sup> in District #3 is a relative area of weakness and that all districts could focus a bit on higher-order math skills.

The limited assessment data available on workplace skills and competencies suggest that problem solving, pre-employment and employability skills need to be emphasized – especially in District #2. District #2, District #3 and Sheridan College could also focus more on technology skills for their students and, given the high growth of jobs related to healthcare and technology, all districts and the college should reexamine their offerings to be more aligned to current workplace demands.

The limited climate survey data suggests that while preparation of students for higher education is excellent, preparation for students going directly into the workforce is not as good. This finding is corroborated by other data sources reported subsequently in this report. It is noteworthy in that the limited follow-up data in this section and results from the follow-up conducted as a part of this study suggest that a large proportion of students are working directly

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<sup>15</sup> Note that research suggests that it is important that such literacy skills be developed early on. Slavin (1989) in his review of effective programs for at-risk youth noted that, by 3<sup>rd</sup> grade, one can predict with a fair degree of accuracy which students will ultimately drop out and which will complete their schooling based upon their 3<sup>rd</sup> grade performance in reading and writing.

after leaving high school, either on a part- or full-time basis. Thus, preparation in workplace skills is not only for “non-college bound” students.

What we collected from the school districts and college speaks volumes about the degree to which vocational education (and data collection) are priorities. District #1 has a nearly complete data array, including graduate follow-up – though the return rate was slight. The vocational programs, while limited, are highly regarded. Academic preparation and integration with vocational programs are priorities, as well. District #2 has a nearly complete data array, excluding graduate follow-up. The vocational programs are traditional in scope, and there appears to be an early (and not always positive) distinction between academic and vocational students at the secondary level. Academic integration with vocational programs is seen as important across all districts but, as yet, more academics are brought into vocational classes than is the case the other way around. District #3 has an incomplete data array, which is unsurprising given the size. The college has the most complete data, including entrance exams, follow-up studies, needs assessment information, and a primary objective to provide vocational programs – but little to no assessment data.

Three trends emerge from these data. First, data on at-risk or dropout students is virtually non-existent across all districts. Even vocational standards-based assessment information is not yet available from the districts, though it is mandated by the state. The Whitney needs assessment, especially the graduate follow-up, will help fill that void. Second, the programs are variable and traditional by site. There is a great opportunity for continued and expanded collaboration among the districts and the college. Third, the academic preparation is sound for most students but programs to address at-risk or non-typical students appear to be a need for the entire county educational system. These and other ideas will be revisited at the close of the report.

#### **IV. Follow-Up**

The following section presents results of the Sheridan County Student Follow-up and Employer Surveys. The purposes of these surveys was: to improve understanding of the preparation levels of students as they left school – both from the students' and employers' perspectives; to identify areas wherein improvement is needed; and to examine patterns in terms of what Sheridan County students are doing upon leaving school.

The Student Follow-up Survey was conducted via a phone survey. For Sheridan College data, 14% of students who attended the college between 1996 and 2001 were randomly sampled to obtain statistically meaningful representation. For Districts #1, #2, and #3, the survey attempted to contact *all* students who attended the high schools for the last three years: 1998-1999, 1999-2000, and 2000-2001.

Former students who were employed were asked if they would grant us permission to contact their places of employment. Employers then were contacted and administered the employer survey via phone interview. Both surveys were conducted by the Survey Research Center at the University of Wyoming (see Appendix B for a copy of instruments).

Results are divided by school level and district: When applicable, comparisons are made between schools.

#### **Secondary Students & Employers**

##### ***Sheridan County High Schools*** ***Background Information about Respondents***

Response rates for Sheridan high school samples are displayed below. Sheridan #3 had the highest response rate but also contributed the smallest sample.

<b>District</b>	<b>Respondents</b>	<b>Total Contacted</b>	<b>Response Rate*</b>
Sheridan #1-Total	43	135	32%
Big Horn	14		
Tongue River	29		
Sheridan #2-Sheridan High	222	818	27%
Sheridan #3-Arvada Clearmont High	14	29	48%
<b>TOTAL</b>	<b>279</b>	<b>982</b>	<b>Average=34%</b>

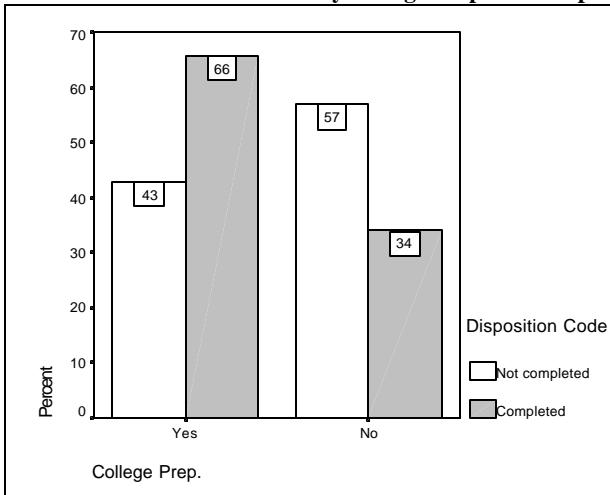
\* Response rates are calculated out of the total possible number of students who left school the past three years. If response rates were calculated based upon the number of valid numbers that were contacted, they are much higher: District #1 (43%), District #2 (42%), and District #3 (67%).

Disposition codes for the last call made are shown below.

DC for last call made		District			Total
		Sheridan #1	Sheridan #2	Sheridan #3	
	Answering machine and message left	14	40	1	55
	Business or government office	3	10	0	13
	Busy Signal	0	4	1	5
	Call Back - Implicit Refusal	7	38	0	45
	Completed	43	222	14	279
	Deaf or language-hearing impaired	0	2	0	2
	Disconnected Number	15	116	4	135
	Fax	1	5	1	7
	No answer	4	36	1	41
	No message left	0	36	0	36
	Number not available	0	15	0	15
	Refusal	17	35	0	52
	Respondent not available for duration of survey	14	97	4	115
	Terminated	1	6	0	7
	Wrong Number	0	1	0	1
	Wrong Number	16	155	3	174
Total		135	818	29	982

To determine how representative the Sheridan #2 graduate sample (N=184) was, respondents were compared to graduate non-respondents in terms of college preparation and vocational programs of study. As shown below, a significantly higher percentage of respondents were college-preparation students in high school compared to those who did not complete the survey. Comparison by participation in vocational programs, however, showed no significant difference between respondents and non-respondents (i.e. both were likely to have participated in a vocational program). The table below illustrates various programs in which respondents and non-respondents participated.

**Percent of Sheridan #2 Graduates by College Prep. And Disposition**

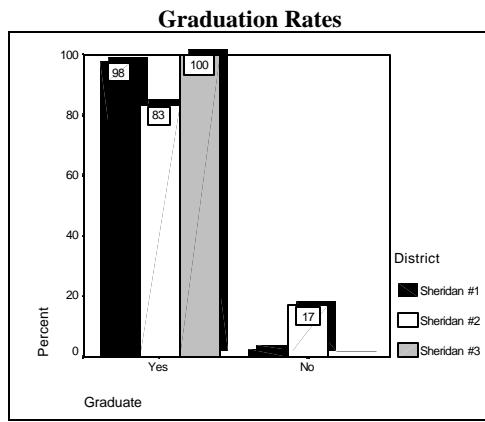


**Percent of Sheridan #2 Graduates in Vocational Programs by Disposition Code**

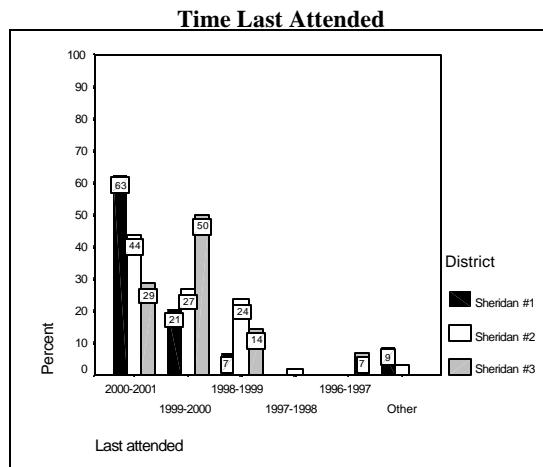
Vocation Program	Disposition Code		
			Not completed
	Col %	Completed	Col %
Agriculture	3.4%	3.9%	
Business	17.2%	17.8%	
Construction	10.3%	7.8%	
Health Service	17.9%	13.2%	
Information Technology	4.4%	3.9%	
None	46.7%	53.5%	
Total	100.0%	100.0%	

***Follow-up Results***

About 86% of respondents graduated from their respective high schools. Results indicated that the Sheridan #3 and #1 samples had the highest graduation rates.



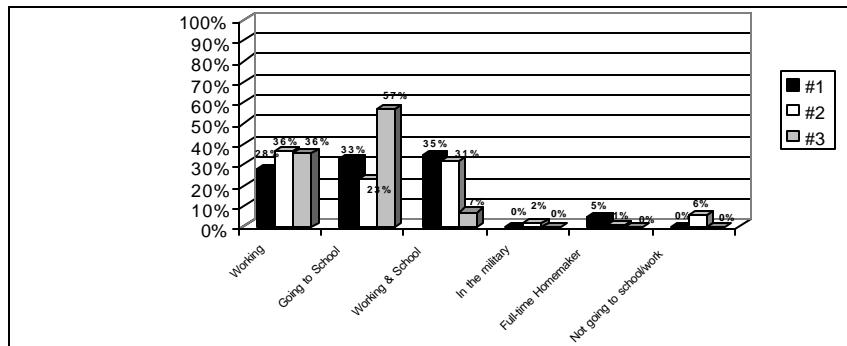
The figure shows the time period when respondents last attended Sheridan high schools. The majority of respondents (46%) attended the high schools in 2000-2001. In particular, Sheridan #1 and #2 had the majority of their respondents attend during that year, whereas the majority of Sheridan #3 respondents attended during 1999-2000.



#### Current and Past Occupational Status

In general, most respondents are currently working and/or going to school. A major difference indicated by the survey was that Sheridan #3 had a significantly higher percentage of respondents who were currently going to school only.

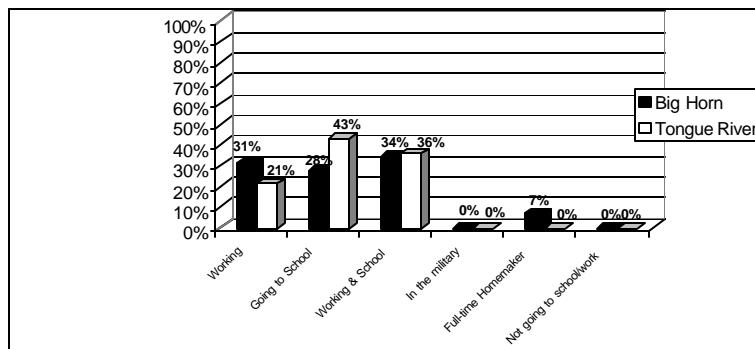
### Current Status by Districts



The above graph shows that a **large proportion of Sheridan County students are in the world of work upon leaving high school**. Specifically, 63% of District #1 students are either working solely or working (28%) and going to school (35%). Approximately two-thirds of District #2 students (67%) are working solely (36%) or working and going to school (31%). District #3 has the fewest students in the workforce (43%) though it remains a substantial minority.

Examination of Sheridan #1's high schools showed that most respondents at Tongue River and Big Horn are currently going to school and/or working. Furthermore, a higher percentage of respondents who attended Tongue River also were going to school currently (39.5%), compared to those who attended Big Horn (31%).

### Current Status of Sheridan #1 Respondents



Respondents were further probed as to whether their current status was the same or different from when they left school. Results indicated that the majority (62%) were doing the same thing now as immediately following school. The following table depicts the percent of students who are doing the same thing as they were when they left high school and the percent of students who had a different position by status than when they left college by status. (*Note: Because of the small number of respondents whose status had changed, disaggregations by school district were not conducted.*)

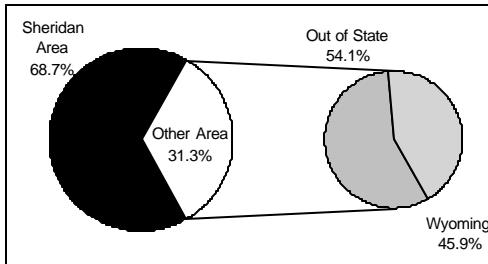
Current Status	Previous Status					
	% whose status is the same	Status Different (% of respondents who have a different current status than they did when they left college)				
		% who were working	% who were going to school	% who were in the military	% who were homemakers	% of other* status
<b>Working only</b>	50%	45%**	35%	4%	0%	16%
<b>Going to school only</b>	80%	27%	67%**	0%	0%	6%
<b>Working and going to school</b>	76%	42%	26%	0%	0%	32%
<b>In the military only</b>	100%	-	-	-	-	-
<b>Homemaker only</b>	25%	100%	0%	0%	0%	0%
<b>Not going to school or working</b>	39%	63%	25%	0%	0%	12%

\*Other things respondents did after leaving school included getting GED, a different job, "messing around", being unemployed, and volunteering.  
\*\*Some respondents may have interpreted this question as meaning if they had held a different type of occupation or went to a different school.

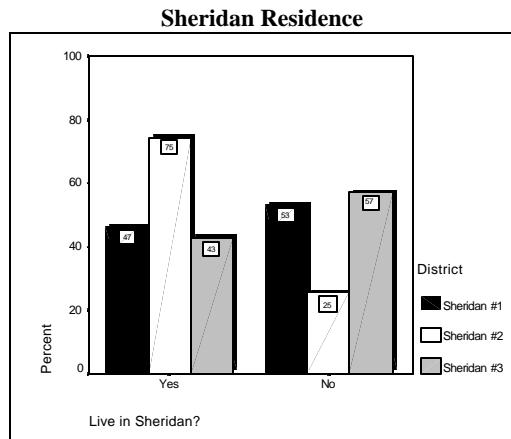
#### Current Residence

More than half of the total respondents currently reside in the Sheridan area (68.7%). Of those who left the area, slightly fewer than half reside within the state of Wyoming (45.9%).

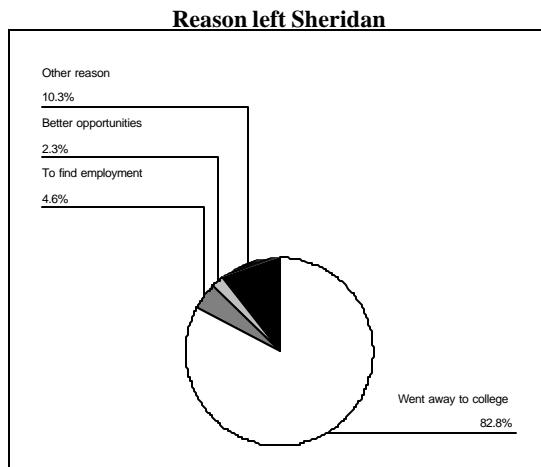
**Current Residence of all Respondents**



As shown in the next figure, the majority of the respondents in Sheridan #2 indicated that they still live in Sheridan County, while slightly fewer than half of the Sheridan #1 and Sheridan #3 respondents reside in the Sheridan area.

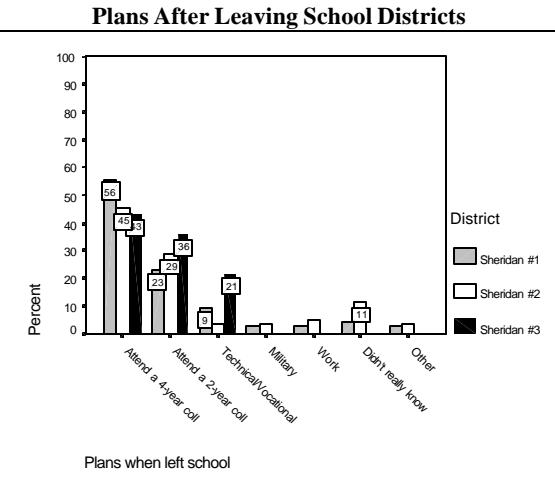


Respondents who left the area were asked why they left. The majority said they went away to attend college (82.8%). Other reasons included marriage, divorce, joining the military, and not liking the community.

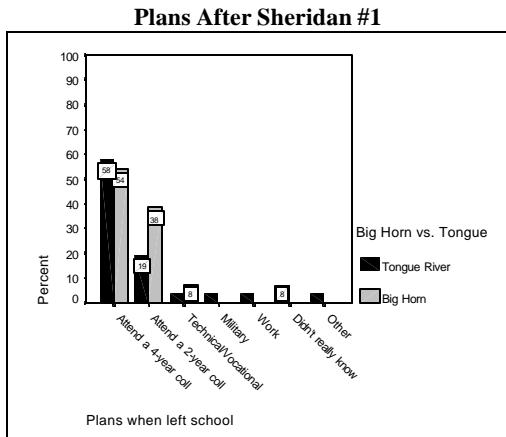


#### Previous Plans and Degree Met

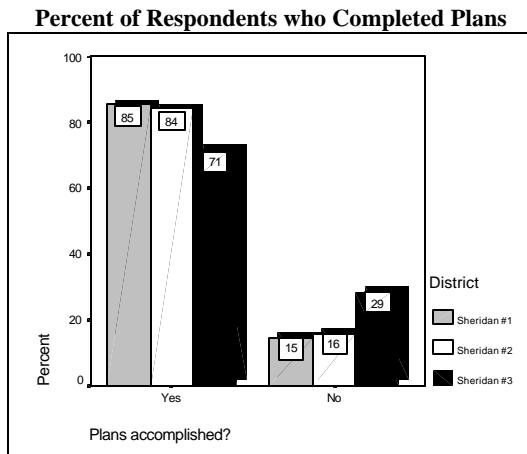
Respondents were asked what their plans were when they left Sheridan school districts. As expected, the majority had planned to attend a two- or four-year college (75%). Results by districts are displayed in the next figure. As shown, Sheridan #1 had a relatively higher percentage of respondents who planned to attend a four-year college, while Sheridan #3 had the smallest percentage. In fact, the majority who attended Sheridan #3 planned to go to a two-year college or a technical school (57%).



Results categorized by high schools in Sheridan #1 indicated that the majority at both Big Horn and Tongue River planned to go to a four-year college. Significantly more who attended Big Horn, however, planned to go to a two-year college compared to those who attended Tongue River.



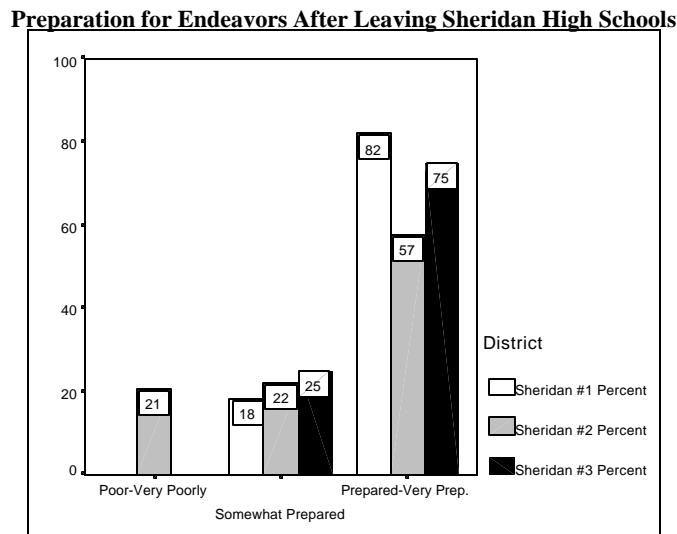
To determine the extent to which these plans were met, respondents were explicitly asked if they had met their goals. About 83% of the total respondents claimed that they had done what they had planned. Comparison by districts showed that completion rates were lowest among respondents who attended Sheridan #3. In addition, all respondents who attended Tongue River said their plans had been accomplished, compared to 78% of those who attended Big Horn.



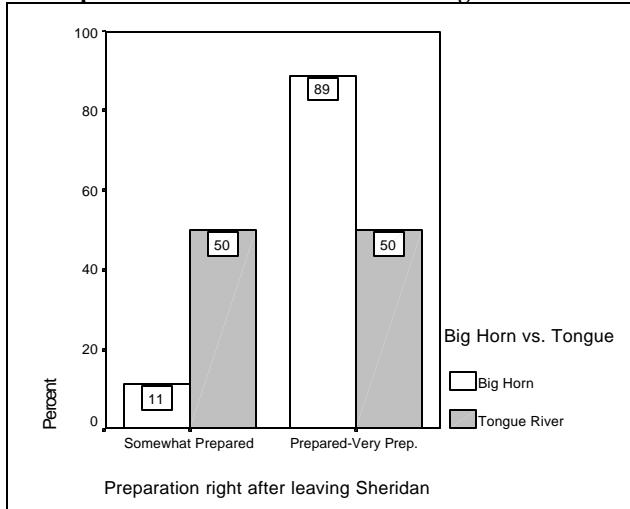
In terms of reasons why plans were not met, personal/family issues (41.5%) ranked as the most common, followed by not being able to afford to meet them (17.1%) and not being accepted into school (9.8%). "Other" reasons (43.9%) included disillusionment with the school system (6), financial problems (3), getting a better opportunity in another endeavor (2), not being ready, taking time off, pregnancy, moving away, and inconvenience.

#### *Perceptions of Preparation*

Respondents were asked the extent to which Sheridan high schools had prepared them to do what they did right after leaving high school. The majority (61%) said they were well to very well prepared, whereas only 17% believed they were poorly prepared or not at all prepared. Analysis by districts revealed that respondents from Sheridan #1 and #3 believed they were more prepared than those in Sheridan #2 (see next figure). Further comparison in Sheridan #1 indicated that more respondents who attended Big Horn High School (89%) felt prepared to very well prepared compared to those who attended Tongue River (50%).



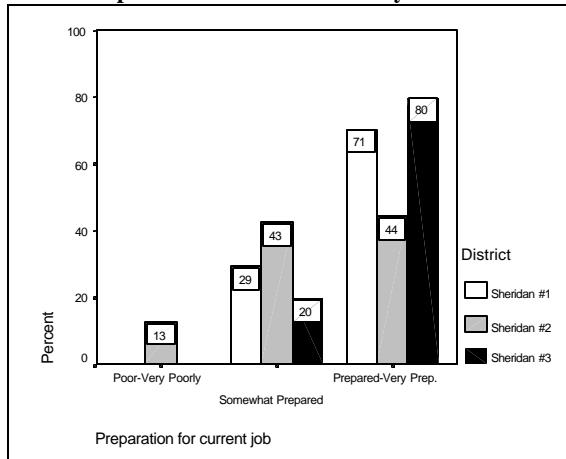
**Preparation for Endeavors After Leaving Sheridan #1**



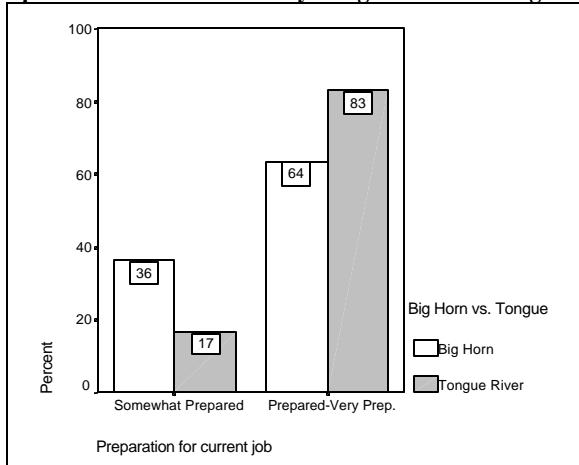
Those who believed they were poorly prepared or not at all prepared were asked to identify the reasons they believed this. (It should be noted that the responses from this question comes from respondents who attended Sheridan #2, as this group represented the only one that felt unprepared.) Among the reasons provided were teachers not teaching them what they needed to learn, lack of social-skills training, lack of job-specific training, lack of college-preparation courses, poor job counseling, difficulties with administration, and lack of adequate funding for school.

Respondents also were asked the extent to which they believed that Sheridan high schools had prepared them for their current jobs. Almost half (49%) said they were well to very well prepared, whereas just 11% believed they were poorly prepared or not at all prepared. Examination of results by district indicated that respondents from Sheridan #2 believed they were the least prepared for their current jobs. The most prepared were respondents from Sheridan #3. Further, more respondents from Tongue River (83%) believed they were prepared to very well prepared compared to respondents at Big Horn (64%).

**Preparation for Current Job by Districts**



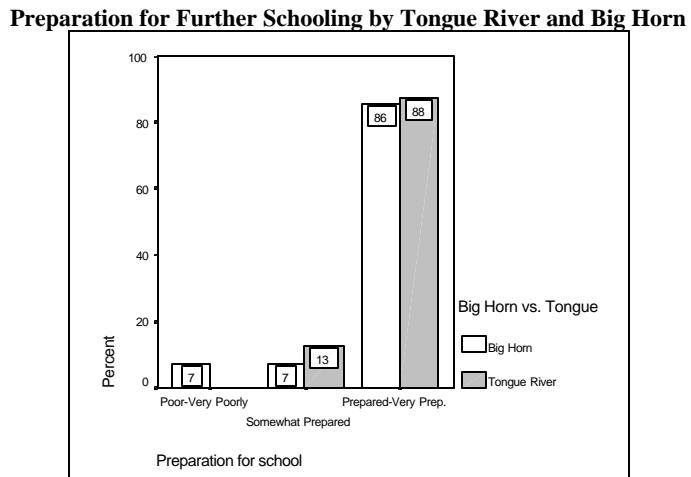
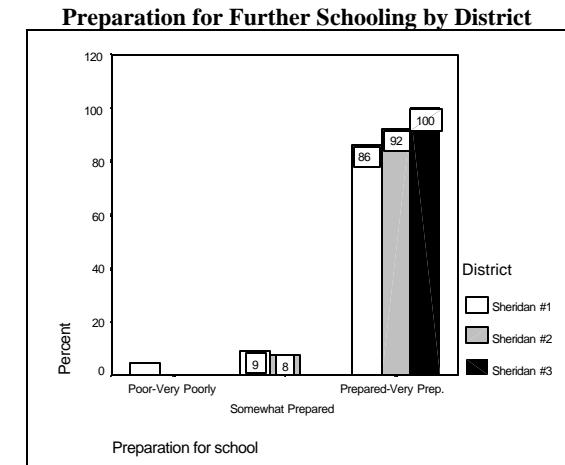
**Preparation for Current Job by Tongue River and Big Horn**



Respondents who did not feel prepared indicated that they lacked job-specific training (6), general information about the work environment [(e.g. importance of teamwork, negotiating work hours), (3)], not being prepared to do "anything" (3), and that they lacked real-life experiences (1).

When asked to indicate their preparation for further study after leaving Sheridan high schools, the majority (92%) claimed they were well to very well prepared. In fact, only one individual felt unprepared. The lowest preparation rate came from respondents from Sheridan #1 compared to the other districts; nonetheless, it was still quite high (86%). There was virtually no difference

between respondents from Tongue River and Big Horn in terms of how prepared they believed they were for further schooling.



#### *Challenges and Needs*

Respondents were asked whether there were any educational or vocational opportunities that they did not have but would like to have had while at Sheridan high schools; about 26% indicated that there were. These opportunity needs/wants are categorized in the table below (unduplicated responses are included in Appendix A). Note that some of these items are complaints rather than needs.

OPPORTUNITIES LACKED				
Comment	Dist. #1	Dist. #2	Dist. #3	Total
More diverse course offerings	5	11	0	16
Improve and/or increase the existing course offerings	2	10	2	14
More vocational opportunities (e.g. cosmetology, business)	0	8	1	9
More extracurricular opportunities (e.g. sports, field trips)	3	4	1	8
Offer college credit	1	3	1	5
Offer more advanced courses (e.g. AP, Honors)	2	2	1	9
Improve school environment	0	4	0	4
Problems with administration	0	3	0	3
Improved career and college counseling	2	1	0	3
Life Skills training (e.g. balancing checkbook)	0	2	0	2

In addition, about 20% indicated that they lacked certain skills/abilities when they left the Sheridan high school districts. For the most part, respondents identified courses that would have helped them obtain needed skills and abilities (see Appendix A for complete list).

SKILLS/ABILITIES LACKED				
Comments*	Dist. #1	Dist. #2	Dist. #3	Total
Advanced math skills (calculus, accounting)	3	8	0	11
Writing Skills	0	7	0	7
Study Skills	0	5	0	5
Advanced Computer skills (e.g. programming)	1	3	0	4
Arts (Art, Theatre, Music, Dance)	1	3	0	4
English Skills	0	3	1	4
Lack of classes offered (i.e. more diversity)	2	0	2	4
Advanced Science courses	1	2	0	3
Advanced Auto Mechanics	0	2	0	2
Electrical Skills	0	2	0	2

\*Unduplicated comments are displayed in Appendix B.

Respondents who were currently seeking employment or considering returning to school were asked to identify the top challenges they faced (see next table). Finding a good job that matched their skills was ranked No. 1. Other challenges included daycare, gender, weather, work hours/shifts, transportation, and schools not offering desired majors.

CHALLENGES TO FINDING EMPLOYMENT OR GOING TO SCHOOL	
Comment	Frequency
Finding a good job (i.e. jobs scarce and difficult to find, jobs available are low-paying or undesirable)	10
Money	5
Lack of motivation and focus	4
Age	2
Qualifications and experience	2

#### ***Employer Surveys***

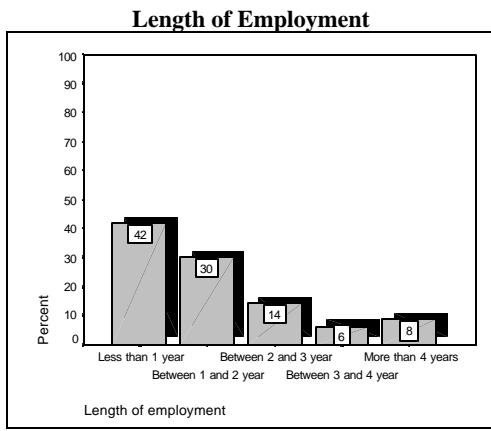
Individuals at the workplaces of former Sheridan high school students – specifically those most knowledgeable of the employees' capabilities – were contacted to determine their perceptions of these students. A total of 84 individuals completed the Employer Survey. They provided information for 11 former students from Sheridan #1, 70 from Sheridan #2, and three from Sheridan #3. (*Note: because of the small sample sizes in the Sheridan #1 and #3 districts disaggregations are not provided in graphs but are discussed in the narrative*). The majority of respondents were immediate supervisors or employers/owners (88%).

The leading five positions currently held by former students are listed below. A complete list is included in Appendix A.

Position	Frequency
CLERK*	11
WAITER/SERVER	7
CHILD CAREGIVER	3
LAB TECHNICIAN, RETAIL SALES	3
LABORER	3

\*"Clerk" includes food clerk, cashier, counter help, sales clerk, front desk help and filing clerk.

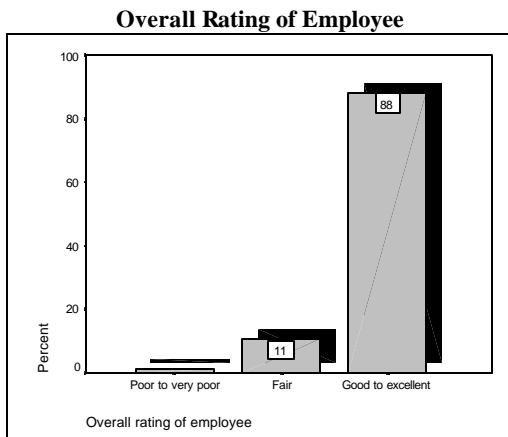
As shown in the figure below, the majority of these former students have been employed for a short period of time (72% for less than two years).



Employers were asked whether former students had received on-the-job training. About 87% did require some training. The majority received job-specific training in various aspects of their positions (38) and computer skills training (9). A complete list of trainings provided is included in Appendix A.

*Evaluation of Former Students by Employers*

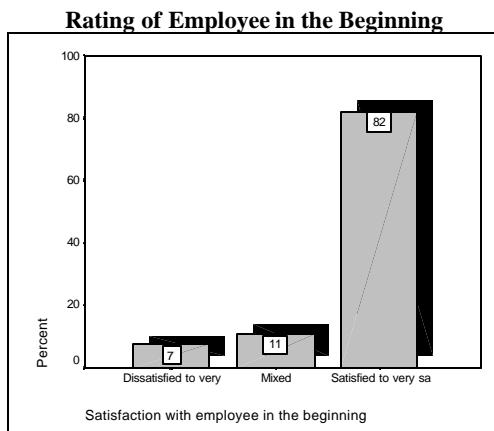
Overall, former students from all Sheridan County high-school districts were rated very highly by employers. In fact, nearly 89% of employers rated employees from the districts as good to excellent<sup>16</sup>. No significant differences existed between districts.



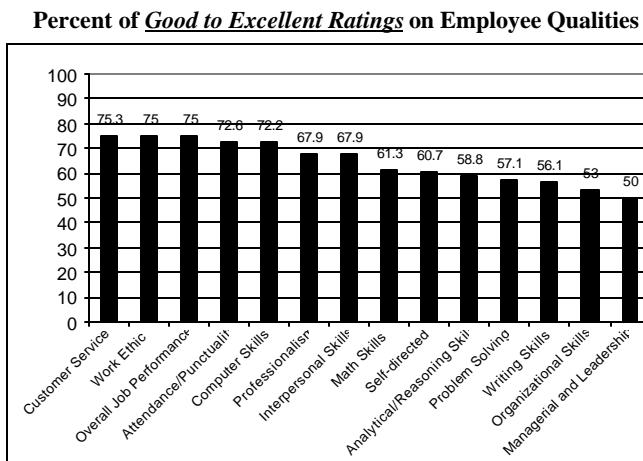

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<sup>16</sup> Note that the vast majority of positions held are relatively low-skill, low wage jobs.

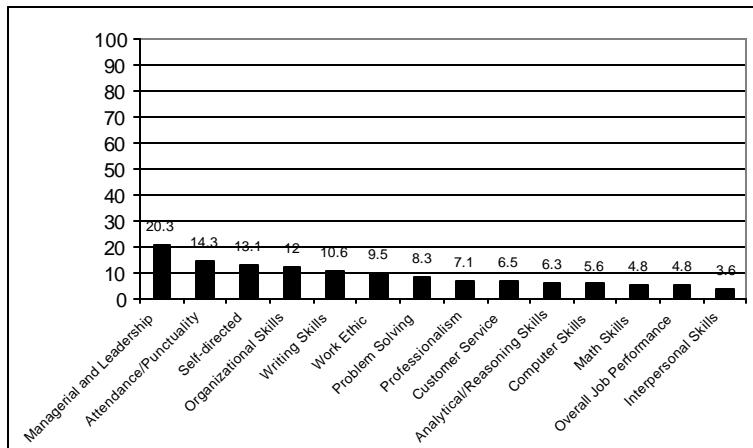
In addition, the majority of employers (82%) were satisfied to very satisfied with former students when they began working for them compared to 7% who were dissatisfied. No differences were found between districts.



Employers also were asked to identify the extent to which former Sheridan County students possessed certain skills and qualities characteristic of good employees. The figures below show ratings on these various qualities. Among the highest-rated qualities were customer service, work ethic and enthusiasm for the job, and overall job performance. The lowest ranked area, by far, was leadership/managerial skills. District comparisons revealed that Sheridan #2 was rated significantly lower than Sheridan #1 in terms of problem-solving abilities. No other significant differences were indicated.



### Percent of Poor to Very Poor Ratings on Employee Qualities



It is striking that the majority of skills rated poorly by a substantial minority of employers relate to “soft” skills, such as managerial & leadership, attendance, being self-directed and organized, work ethic, and problem solving. Writing also is cited as being in need of improvement – a finding corroborated by assessment results reported earlier in this report.

### Analysis by Graduation Status

When graduation status was examined, results indicated that those who graduated from high school were significantly more prepared for their endeavors right after leaving high school and were more highly rated by their employers in terms of job performance and satisfaction than those who did not graduate. Percent differences between graduates and non-graduates are displayed below.

### **Percent Who Were Prepared by Graduation Status**

		Graduate	
		Yes	No
Preparation right after leaving Sheridan	Poor-Very Poorly	6.0%	62.5%
	Somewhat Prepared	22.4%	18.8%
	Prepared-Very Prep.	71.6%	18.8%
Overall rating of employee	Poor to very poor	1.4%	
	Fair	8.7%	20.0%
	Good to excellent	89.9%	80.0%
Satisfaction with employee in the beginning	Dissatisfied to very	4.3%	20.0%
	Mixed	10.1%	13.3%
	Satisfied to very satisfied	85.5%	66.7%

*Analysis by Time Last Attended*

Preparation for endeavors after respondents left Sheridan high schools also was examined based upon the year they last attended a Sheridan school. Results indicated no significant difference in preparation as perceived by the respondents and their employers based on this criteria.

*Analysis by College Prep. Courses*

Analysis revealed significant differences between graduates at Sheridan #2 who were in college preparation programs and those who were not. Specifically, those who were in a college-prep program were more prepared for their endeavors right after leaving high school and were better prepared to pursue higher education than those who were not enrolled in college-prep courses.

*Analysis by Vocational Courses*

There also was a significant difference between working graduates who were in a high school vocational program and those who were not in terms of *overall job performance*, as evaluated by their employers. Specifically, those who were *not* in a vocational program (N=23) were evaluated as performing better at their job than those who were (N=61).

## **Postsecondary Students & Employers**

### ***Sheridan College***

#### ***Background Information about Respondents***

About 14% of students who attended Sheridan College between 1996 and 2001 were contacted via a phone survey, producing a sample size of 1,962. Analysis revealed that the sample was a representative one in that these students did not significantly differ from the total population in terms of GPA and credit hours taken at Sheridan College. Of these, 25% (or 494 former students) participated and completed the survey. The response rate, when calculated out of the valid contact numbers for Sheridan College students, was 39%.

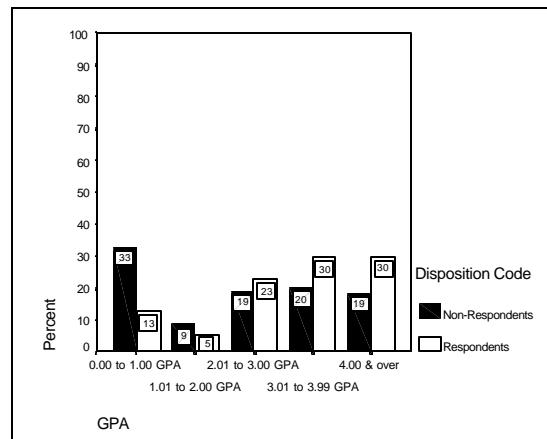
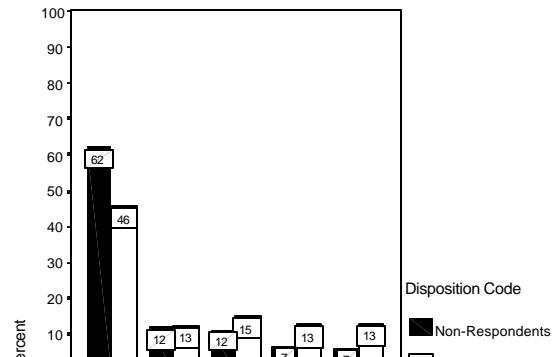
Disposition codes are displayed below.

Disposition Code

	<b>Frequency</b>	<b>Percent</b>
Completed	494	25.2%
Wrong Number	429	21.9%
Refusal	277	14.1%
Disconnected Number	200	10.2%
No answer	127	6.5%
Answering machine and message left	99	5.0%
Respondent not available for duration of survey	92	4.7%
Call Back - Implicit Refusal	78	4.0%
Never attended school in Sheridan	78	4.0%
Business or government office	31	1.6%
Busy Signal	23	1.2%
Fax	21	1.1%
Terminated	12	.6%
Deaf or language/hearing impaired	1	.1%
<b>Total</b>	<b>1962</b>	<b>100.0%</b>

As shown in the next two figures, results revealed that this sample was biased in terms of GPA and number of credit hours in college. Specifically, those who completed the phone survey had a higher GPA and had taken more credit hours in college than those who did not. Thus, we obtained a relatively more highly educated sample of respondents. It is important to keep this in mind as the results are presented because one can suspect that these respondents' preparation levels and competencies are higher than those who were not interviewed. Within the sample of respondents, however, there were still a number of former students who had low GPAs and had taken fewer credit hours.

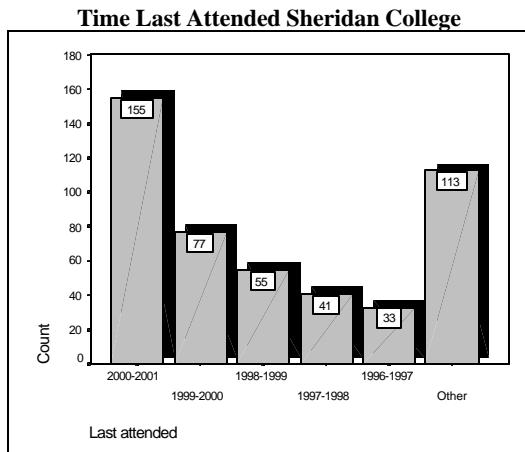
### Disposition Codes by # of Credit Hours and GPA



Approximately 23% of those surveyed indicated that they graduated from Sheridan College. The next table displays the top 10 programs of study in which the respondents participated. Of those specified, the programs in which the highest percentage of students participated were General Studies and Business.

Program of Study*		
GENERAL STUDIES	33	6.68%
BUSINESS	31	6.28%
NURSING	26	5.26%
MINE SAFETY TRAINING	15	3.04%
SOCIAL SCIENCE	12	2.43%
EDUCATION	11	2.23%
COMPUTER SCIENCE	10	2.02%
Other**	356	72.06%
<b>TOTAL</b>	<b>494</b>	

The figure shows the time period when the respondents last attended Sheridan College. As shown, the majority of respondents (32%) attended Sheridan College in 2000-2001. In a later section, we will compare preparation levels of those who last attended Sheridan College at an earlier period versus those who more recently left the college.



#### Current and Past Occupational Status

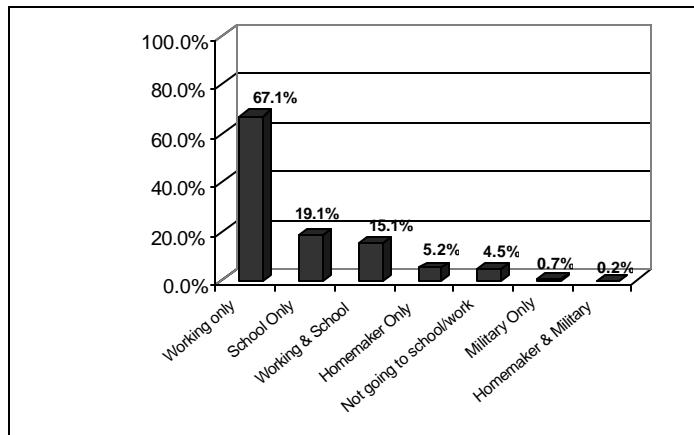
As the figure below illustrates, most respondents (67.1%) were currently employed but not attending school, while 15% were employed *and* going to school. About 19% were attending school but not employed.

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\* Business category includes Management, Administration, Marketing, General Business, and Business Tech. The Nursing category includes Associate Nurse, Practical Nursing, and Pre-Nursing. The Education category includes Early Childhood, Elementary, and Secondary Education. The Computer Science category includes Computer Information Systems and Computer Technician.

\*\* Other includes programs of study that were unspecified, missing, involved high school students, or had a participation rate smaller than 2%. These "Other" programs are included in Appendix A.

### Current Status



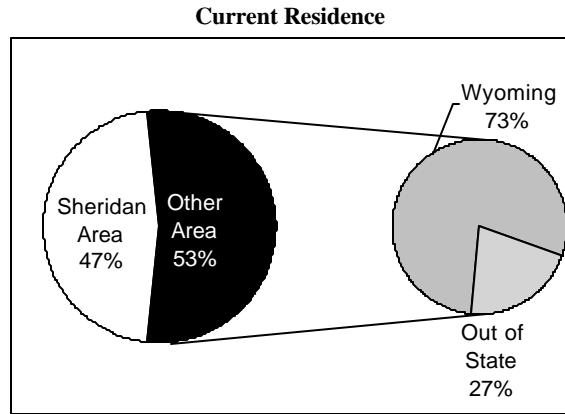
Respondents were further probed as to whether their current employment status was the same or different as it was when they left school. Overall, results indicated that a little more than half (54%) is maintaining the same status. The table below displays the percent of students who are doing the same thing as they were when they left Sheridan College and the percent of students who had a different position, by status, as when they left college.

Current Status	Status the same as present % unchanged	Status Different (% of respondents who have a different current status than they did when they left college)				
		% who were working	% who were going to school	% who were in the military	% who were homemakers	% of other* status
<b>Working only</b>	57%	68%**	23%	2%	2%	5%
<b>Going to school only</b>	81%	59%	33%**	0%	0%	8%
<b>Working and going to school</b>	73%	25%	33%	0%	25%	17%
<b>In the military only</b>	33%	50%	0%	0%	0%	50%
<b>Homemaker only</b>	36%	79%	2%	0%	7%	7%
<b>Homemaker &amp; in the military</b>	0%	0%	0%	0%	0%	100%
<b>Not going to school or working</b>	28%	83%	0%	0%	0%	17%

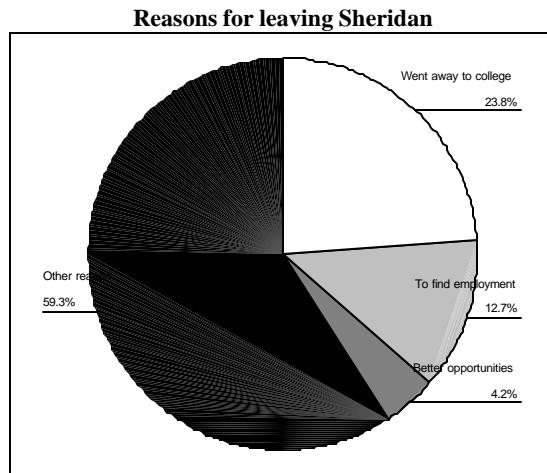
\*Other things respondents did after leaving school included getting married, raising family, moving away, and attending to personal obligations.  
\*\*Some respondents may have interpreted this question as meaning if they had held a different type of occupation or went to a different school.

### ***Current Residence***

Fewer than half of the respondents currently continue to reside in the Sheridan area (46.6%). Of those who left the area, the majority still resided within the state of Wyoming (73.0).

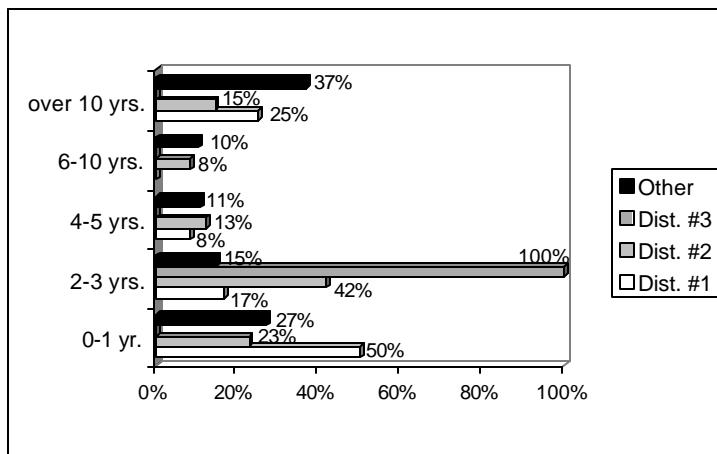


Respondents who left the area were asked why they left. The majority gave "other" reasons, such as returned home, went to the military, and to go with spouse or significant other. The majority of the individuals in this "other" category, however, said they were never in Sheridan – but instead had lived in Gillette.



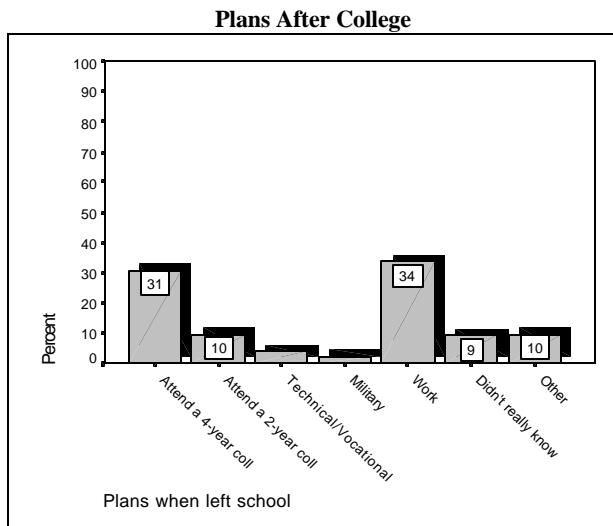
The locations of high schools that respondents attended also were determined. Results indicated that the majority of the respondents (74%) attended a high school outside of the Sheridan school district. Furthermore, as the figure below indicates, most of the respondents attended Sheridan College within three years after they left high school. All of District #3 students took a year off before attending the community college, as was the case with 42% of Sheridan College students who had attended District #2.

**Percent of Respondents Who Attended Sheridan College  
After A Specified Number of Years  
and by District**



#### Previous Plans and Degree Met

Respondents were asked what their plans were when they left Sheridan College (see figure below). As expected, the majority had planned to work (34%) or go to a four-year college (31%). "Other" plans included self-improvement (11), remain in a two-year college (10), specialized training (7), other personal plans (3), get married (2), having a baby (1), and take time off (1).



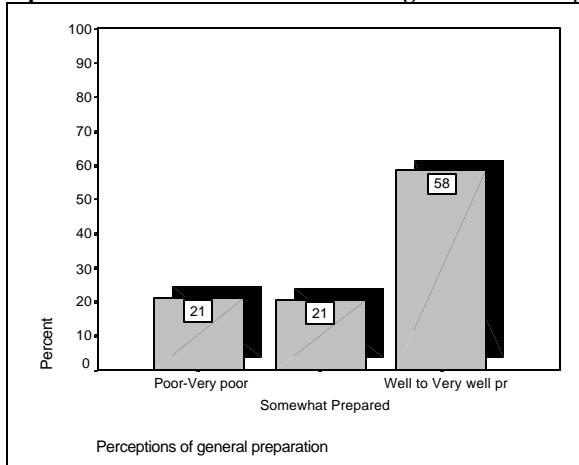
To determine the extent to which these plans were met, respondents were explicitly asked if they had met their goals. About 86% claimed that they had done what they had planned.

Those who did not fulfill their plans were asked why. Personal/family issues (34%) ranked as the most common reason why plans were not met, followed by jobs not being available (8%) and not being able to get into school (8%). "Other" reasons (48%) included getting a better opportunity in another endeavor (4), not being ready (4), taking time off (4), having a hard time making a living (2), moving away, and working too much.

#### Perceptions of Preparation by Respondents

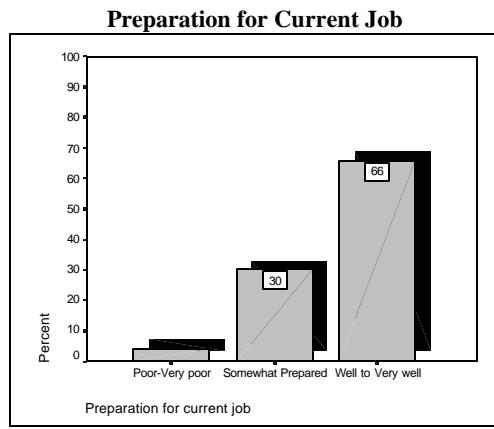
Respondents were asked the extent to which Sheridan College had prepared them to do what they did right after leaving Sheridan College. The majority (58%) said they were well to very well prepared, whereas only 21% said they were poorly prepared or not at all prepared.

**Preparation for Endeavors After Leaving Sheridan College**

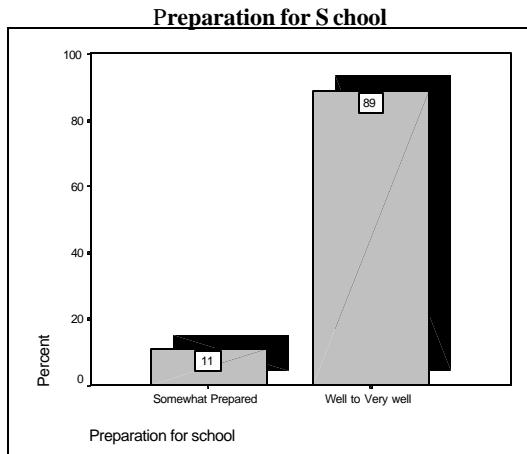


Those who indicated that they were poorly prepared or not at all prepared were asked to identify the reasons for this. Among those reasons provided were: taking a small number of courses so could not determine preparation level (5); courses not being good (5); courses not relating to what they wanted to do (4); major not being offered (3); limited courses available (3); not completing degree (2); teachers not being good (2); having problems with administration (2); and financial problems (1).

Respondents also were asked the extent to which Sheridan College had prepared them for their current jobs. The majority (66%) said they were well to very well prepared, whereas only 4% said they were poorly prepared to not at all prepared. Respondents who did not feel prepared indicated that the courses did not relate to what they were doing and that they lacked real-life experiences.



When asked to indicate their preparation for further study when they left Sheridan College, all respondents indicated that they were prepared. In fact, the majority (89%) claimed they were well to very well prepared.



#### Challenges and Needs

Respondents were asked whether there were any educational or vocational opportunities that they would like to have had but did not while at Sheridan College. About 21% indicated that there were. These responses are categorized in the table below, and unduplicated responses are included in Appendix A.

Comment	Frequency
More diverse course offerings	44
Improve existing courses/programs	11
Offer 4-year degree	9
Lack of resources (e.g. no theatre, improve computers)	7
More variety of degrees offered	7
Scheduling changes (e.g., more night classes)	6
Increase in satellite courses	3

In addition, 13% of the respondents indicated that they lacked certain skills and abilities. For the most part, respondents identified courses that would have helped them obtain needed skills and abilities (see Appendix A for complete list).

Comments	Frequency
Have more courses to teach needed skills	25
Computer skills	7
Business skills	5
Real world skills	5
Financial planning	3

Respondents who were currently seeking employment or considering returning to school were asked to identify the top challenges they faced. **Computer skills** were the most oft-noted problem (see Appendix A for list).

#### *Survey of Employers*

Individuals at the workplaces of former Sheridan College students – specifically, the people most knowledgeable of the former students' capabilities – were contacted to determine their perceptions of these students. A total of 119 individuals completed the Employer Survey. The majority of respondents were immediate supervisors (70.6%).

The top 10 positions currently held by former students are listed below. A complete list is included in Appendix A.

Position	Frequency
TEACHER*	26
MANAGER**	19
NURSE	16
ACCOUNTING	11
SALES REPRESENTATIVE	11
DENTAL HYGIENIST	9
SECRETARY	8
ELECTRICIAN	7
BUSINESS OWNER	6
RANCHER	6

\*Teacher includes elementary, secondary, and college/technical school instructors.

\*\* Manager includes assistant, service, parts, business and shift managers.

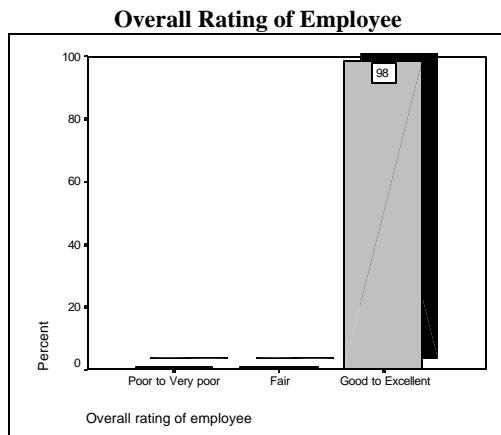
As shown in the figure below, the majority have been employed either for a very short period of time (28% less than one year) or for an extended period (32% more than 4 years).



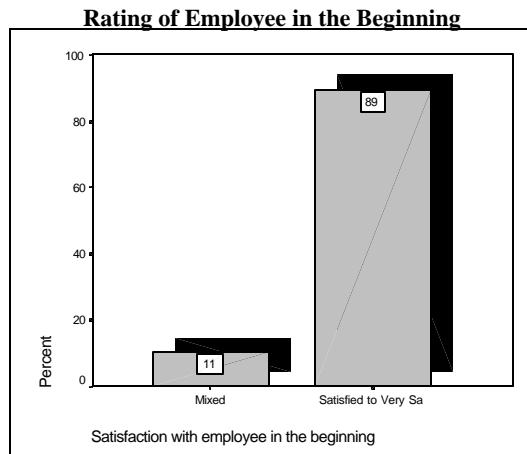
Employers were asked whether former students had received on-the-job training, and about 68.9% did require some training. The **majority of these employees required computer skills training** (16) and received general training in various aspects of their positions. Appendix F includes a complete list of trainings provided.

#### *Evaluation of Former Students by Employer*

Overall, former students were rated very highly by employers. About 98% of employers rated the employees as good to excellent.

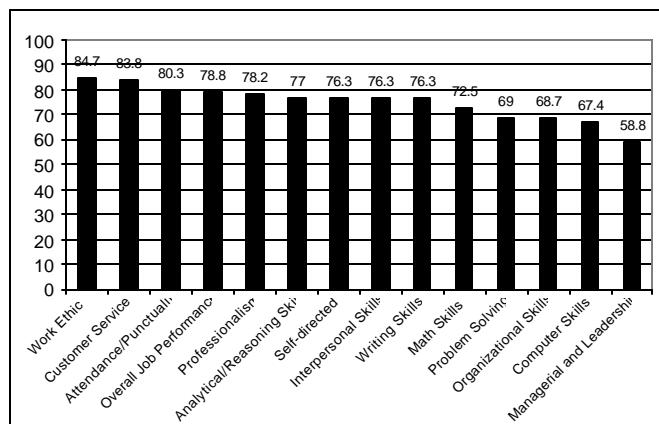


In addition, the majority of employers (89%) were satisfied to very satisfied with former students when they began working for them.

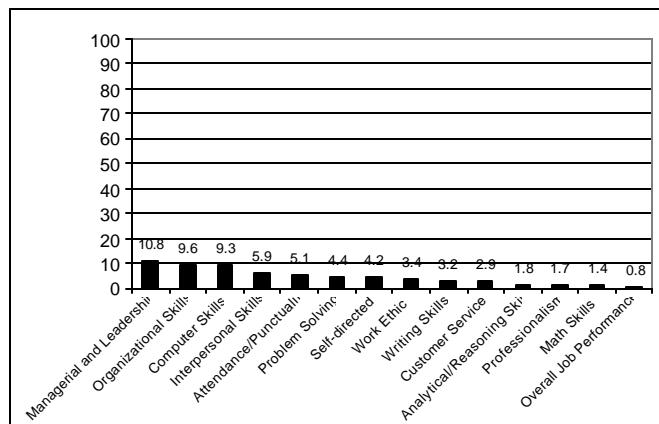


Employers also were asked to identify the extent to which former students possessed certain skills and qualities characteristic of good employees. The figures below indicate their ratings on these various qualities. Among the highest rated qualities were work ethic and customer service. The lowest ranked areas were leadership/managerial, organizational and computer skills.

**Percent of *Good to Excellent Ratings* on Employee Qualities**



**Percent of *Poor to Very Poor Ratings* on Employee Qualities**

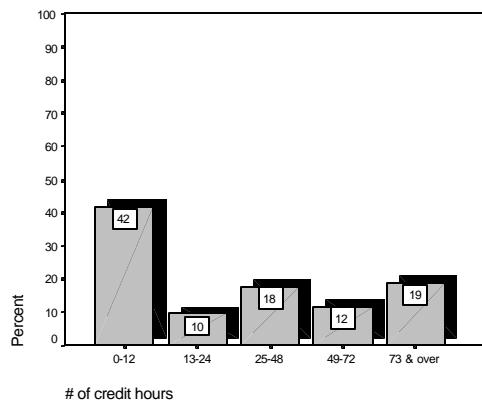


#### Analysis by Number of Credit Hours

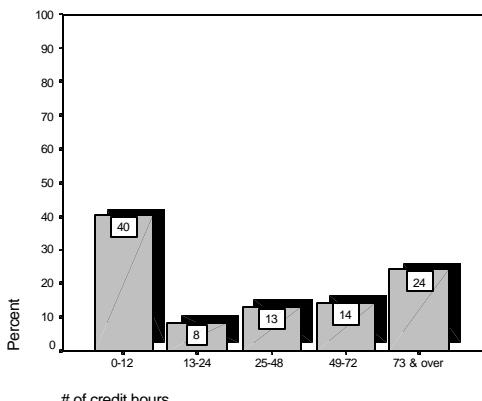
There was no significant relationship between the number of credit hours completed at Sheridan College and the respondents' and employers' perceptions of preparation.

The figures below show the percent of respondents who believed they were well to very well prepared for (1) their future endeavors right after leaving Sheridan College; (2) their current job; and (3) further schooling, by number of credit hours. The graphs show no real discernible pattern.

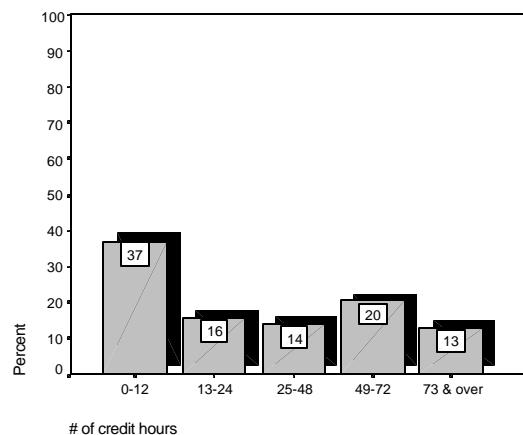
**Percent of Students Well to Very Well Prepared for Endeavors After Leaving Sheridan College by Number of Credit Hours**



**Percent of Respondents Well to Very Well Prepared for their Current Jobs, by Number of Credit Hours**



**Percent of Respondents Well to Very Well Prepared  
for Further Study, by Credit Hours Completed**



***Analysis by Graduation Status***

Comparisons by graduation status indicated that those who graduated were significantly more prepared for their endeavors right after leaving their college and for their current jobs than those who did not graduate. Percent differences between graduates and non-graduates are displayed below.

		Graduate	
		Graduated	Did Not Graduate
Perceptions of general preparation	Poor-Very poor	8.3%	25.2%
	Somewhat Prepared	5.6%	25.2%
	Well to Very well	86.1%	49.6%
Preparation for current job	Poor-Very poor	1.3%	5.6%
	Somewhat Prepared	14.5%	36.4%
	Well to Very well	84.2%	58.0%

***Analysis by GPA***

Preparation for endeavors after respondents left Sheridan College was examined based on GPA. Results indicated significant relationships between students' Sheridan College GPAs and preparation levels. Specifically, analysis revealed that students with higher GPAs felt more prepared do what they had planned to do right after leaving Sheridan College. In addition, employers of students with higher GPAs rated them more highly, were more pleased with their

overall job performance, and were more satisfied with them when the students began working for them.

High school of origination also was examined based on GPA. When the respondents who attended a high school in Sheridan County (N=256) were compared to respondents who attended a school elsewhere (N=1,108), results indicated a significant difference. **Specifically, respondents from Sheridan high schools had higher cumulative GPAs at Sheridan College than students from other districts.** There were no significant differences among the Sheridan high schools in terms of GPA.

*Analysis by Time Last Attended*

Preparation for endeavors after respondents left Sheridan College also was examined based on the school year they last attended. Results indicated no significant difference in preparation levels as perceived by respondents or employers based on the time they last attended.

**Follow-up Summary**

Several noteworthy results emerged from the follow-up study of students and employers. First, a widespread perception communicated to researchers at the onset of this study was that the vast majority of students leave Sheridan (and Wyoming) within a couple of years. Our analyses of mobility patterns do not confirm this perception, however, particularly for students from District #2. Rather, analyses indicate that the majority of the high school respondents (69%) and just less than half (47%) of the college respondents currently reside in the Sheridan area and, of those who left the area, most still reside in Wyoming. Comparison by high school district showed that the percent of respondents from Sheridan #2 who remained in Sheridan County was significantly higher (75%) than those from Sheridan #1 (47%) and Sheridan #3 (43%). Of course, the length of follow-up conducted by this study was three years back for the high schools and five years back for Sheridan College. It does not, therefore, provide long-term mobility patterns.

Second, a large proportion of high school and college students enter the world of work after leaving school – either on a full-time or part-time basis. On average, one-third (33%) of students across all three districts go directly into work only. Specifically, 63% of District #1 students are either working solely (28%) or working *and* going to school (35%). About two-thirds of District #2 students (67%) are working solely (36%) or working *and* going to school (31%). District #3 has the fewest students – though still a substantial minority at 43% – in the workforce. This is a very important finding, as it suggests that preparation for the workforce must occur for the vast majority of students – rather than just those not bound for higher education. It also is highly significant given that both college and high school respondents indicated that the schools in Sheridan did a far better job at preparing them for further study (89%-college and 92%-high school sample well to very well prepared) than for their current job (66%-college and 49%-high school sample well to very well prepared). Reasons that college respondents gave as to why they were not prepared for their current jobs included having taken courses not related to what they were doing and lacking real-life experiences. High-school respondents gave reasons including lack of job-specific training.

In addition, analysis according to district showed that respondents who had attended Sheridan #2 felt significantly less prepared for their endeavors after leaving high school (21% unprepared) and for their current jobs (13% unprepared) than did respondents from the other districts (0% unprepared). Analysis by the high schools in Sheridan #1 showed that more respondents who attended Big Horn were well prepared for their endeavors right after leaving school (89%) than were those who attended Tongue River (50%), though a smaller percentage were well prepared for their current jobs (64% versus 83%).

All told, about 21% of the college sample and 26% of the high-school sample indicated that they would like to have had more educational and/or vocational opportunities made available to them. In both samples, the leading responses as to what those opportunities might have been included more diverse courses and improvement and increase in the existing program/course offerings. In addition, about 13% of the respondents from Sheridan College and 20% of the respondents from the high-school districts indicated that they believe they lacked certain skills or abilities when they left school. Amongst the **Sheridan College** sample, the leading things they believed were lacking in their education were courses that taught necessary skills, such **computer** and business skills. In the **high-school** sample, **topping the list of skills lacked were advanced math and writing skills**. Assessment results reported earlier in this report reach the same conclusions.

Upon examining the types of skills that **both employers and students rated poorly**, it is important to note that the majority of them related to **soft skills and higher-order thinking skills**, specifically: managerial & leadership skills; punctuality & attendance; self-direction; organizational skills; and problem solving and analytical skills. For Sheridan College, teaching of computer skills clearly was rated lower than other skills. Accordingly, employers said computer skills marked the most frequently needed on-the-job training required of Sheridan College students. Other results in this study also point toward the need for teaching of computer skills at the high-school level.

Writing and higher-order math skills are other study areas that need to be emphasized across county schools, especially in districts #2 and #3. In addition, problem-solving skills were rated more poorly for students from District #2 than those in other districts – yet another finding corroborated by the assessment results, as well.

Sheridan County students also highlighted challenges they encountered in seeking employment or returning to school. In particular, high school respondents said that finding a job that matched their skills and paid well was difficult, while college respondents indicated that a lack of computer skills was hampering their attempts to find strong employment.

Current employers of former Sheridan County students evaluated the former students highly. In fact, 98% of the college sample and 89% of the high school sample were rated as good to excellent employees. In indicating their satisfaction with the former students *at the beginning* of their employment, these employers again were satisfied to very satisfied with the majority of the college sample (89%) and high-school sample (82%). No significant differences existed between employees from the various Sheridan County high-school districts.

In further evaluation, employers of respondents both from Sheridan College and Sheridan high schools identified work ethic, enthusiasm and customer-service skills as the strongest qualities of these former students, while listing leadership and managerial skills as lowest in quality. One significant difference existed between the districts: Sheridan #2 was rated significantly lower than Sheridan #1 in terms of problem-solving abilities.

Analyses of perceptions about preparation levels of respondents and their employers also were conducted – based on variables likely to have an effect on preparation. First, *graduation status* seems to have an effect on preparation: High-school respondents who graduated were significantly more prepared for their endeavors right after leaving their high school and likewise earned higher ratings from their employers in terms of job performance and satisfaction than those who did not graduate. Similarly, college respondents who graduated were significantly more prepared for their endeavors right after leaving their high school and for their current jobs than those who did not graduate. Thus, retention of students until they graduate is a very important outcome to be emphasized by all levels, particularly District #2 which has somewhat higher dropout rates than the other districts. Second, *GPA* of Sheridan College respondents indicated significant relationships with preparation levels: Students who had higher GPAs were more prepared for their endeavors right after leaving college and were rated more highly by their employers, both in terms of satisfaction when they began working and in future overall job performance. Notably, Sheridan College students who had attended high school in Sheridan County had higher grade point averages than students who came from districts elsewhere in Wyoming. Third, further analysis of the Sheridan #2 graduate sample revealed that those who were in a *college preparation program* were more prepared for their endeavors right after leaving high school and for pursuing higher education than those who were not. In addition, those who were *not* in a vocational education program were evaluated more highly by their employers in overall job performance compared to those who were. Finally, analysis of the college respondents' preparation by the *number of credit hours* they had taken at Sheridan College showed no significant effect.

## **V. Focus Groups & Interviews**

The purpose of the qualitative portion of this study was to gather and compare perceptions of a variety of community members regarding preparation and needs of Sheridan youth. This form of data collection enhances our understanding of the perceived needs and strengths within the community because it is *semi-structured* in nature. That is, while focus groups and interviews were designed to tap a variety of topics of interest, they also were unstructured enough to pursue noteworthy themes and emerging areas of interest.

The qualitative data collection portion of this study consisted of: 1) four focus groups held with community organizations; 2) seven focus groups conducted with students from the three school districts and Sheridan College; 3) forty-six completed telephone interviews with purposively selected individuals representing various segments of the community; and 4) twenty telephone interviews with a randomly selected population of community members. A summary is provided in the Table below.

**Qualitative Data Collection Summary**

METHOD	RESPONDENTS	TIME PERIOD	ADDITIONAL COMMENTS
<b>Community Focus Groups</b>	Four held with different community organizations including: Retired Teachers Association, Rotary Club, Downtown Sheridan Association, and the Chamber of Commerce	November 2001	Representation of local business community and parents.
<b>Student Focus Groups</b>	Seven held: One with Sheridan #1, two at Sheridan #3, two at Sheridan #2, two at Sheridan College.	November 2001	Focus groups held primarily with 11 <sup>th</sup> & 12 <sup>th</sup> grade students at the HS level.  Wide cross-section of students at Sheridan College, including dental hygiene and auto-mechanics students.
<b>Phone interviews with purposively selected community members<sup>17</sup></b>	N=46  Average # of years that respondents were in Sheridan community was 25.58 years, ranging from 1 year to 62 years. Mostly comprised of white-collar professionals.	January 2002 – May 2002 <sup>18</sup>	These represented individuals who were in unique and key positions in the community to reflect on the preparation of students, including approximately 20 educators.
<b>Phone interviews with randomly selected sample of community members<sup>19</sup></b>	N=20  Average # of years in community was 26 years, ranging from 5 years to 65 years. Respondents were from a wide variety of SES backgrounds and occupations.	March – April 2002	An additional random sample of community members was interviewed to get a sense of how representative they were of interview findings.

<sup>17</sup> This first group of interviewees were purposively nominated by Whitney Board Members to provide us with the perspectives of individuals who held positions in the community that would contribute to our understanding of what is currently going on and what is needed. For example, YMCA & Healthy Communities/Healthy Youth, board members on community organizations, etc.

<sup>18</sup> Some additional interviews with vocational educators in the community took place in May/June as well.

<sup>19</sup> A nationally known telephone sampling firm was retained and provided a random sample of 120 home phone numbers within the Sheridan Community.

As the above table illustrates, this portion of the study collected information from a wide cross-section of individuals within the community, including: employers, parents, students, business, educators, and representatives from various community organizations. In general, respondents had significant longevity in Sheridan (average=26 years) and could discuss issues from a variety of perspectives (e.g., parent, employer, community member, etc.).<sup>20</sup>

While the above summary is quite self-explanatory, elaboration on the rationale behind some of the methodology is warranted. Specifically, as the study was originally designed, researchers were only going to conduct focused interviews with a group of purposefully selected members within the community. As these interviews were taking place, however, it was noted by researchers that this population, while highly informed and representative of major segments of the community, was not necessarily representative in that it predominantly comprised highly educated professionals. With that in mind, it was determined that additional interviews needed to be conducted with a *random sample* of community members to see whether the themes that emerged from the first set of interviews were, indeed, representative of the broader community.

It was learned that the original group was, indeed, highly representative of the community in that members of this small, tightly-knit community made similar observations about the preparation of Sheridan youth. That is, the major themes that emerged were consistent across all of the different forms of data collection and respondent groups. Given that the identified themes were shared across both focus groups and interviews and across the different respondent groups, they are presented as a whole in the section that follows.<sup>21</sup>

#### Qualitative Data Collection Findings

The following summary is divided into sections by the topics that emerged from a review of the interviews and focus-group discussions. These themes consist of the following:

1. In general, satisfaction is quite high with the schools and opportunities are there *if students are motivated*;
2. A noteworthy minority of students (20% or so) are foundering somewhat within the educational system, either because of lack of motivation and direction or because they do not fit into the traditional system.
3. While students who are going to college are generally well-prepared, preparation levels are more questionable for students not going directly on to college.
4. Students need an increased awareness of the real world and preparation in the “soft skills” necessary to succeed in that world.

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<sup>20</sup> Copies of all instruments used in this study, including the focus group and interview protocols are included in Appendix A.

<sup>21</sup> It is important to note that, when interpreting information from such qualitative data collection techniques as focus groups and semi-structured interviews, the data reported consist of **recurrent and shared themes** that emerged. That is, comments from a single individual which are not reflective of a larger proportion of respondents are not identified as a finding or “theme.”

5. Academics and vocational education need to be more integrated. Students need to see how learning is relevant to the real world and can be “applied.”
6. More emphasis is needed on vocational training and the trades.
7. Resources and support are available to students but some are insufficient.
8. The educational system needs to become more “individualized” so that it can be tailored to the unique needs and strengths of individual students.
9. Lack of opportunities in the Sheridan community are accompanied by a general reluctance to grow or expand.

***THEME #1: In general, satisfaction is quite high with the schools and opportunities are there if students are motivated.***

A pervasive theme throughout the focus groups and interviews was that, overall, people had a great deal of praise for the educational systems available within Sheridan County. Respondents felt that, although preparation levels vary somewhat, **students are, in general, getting a very good education and have many opportunities available to them** within the community.<sup>22</sup>

The schools are doing a fine job of preparing students. Schools provide the students with enthusiasm and allow students to feel secure. The program that allowed my HS children to attend classes at Sheridan College broke down the barrier to their transition into college. I would not have expected anything more from the schools in terms of preparing my kids for their post-graduation lives. – Mother of five

A widely held notion was that **students who want to learn have the opportunity to do so in Sheridan.**<sup>23</sup> Personal initiative or lack thereof often was cited as a primary reason for why some students excel and others do not. Often heard were statements such as, “**You get out what you put in.**”

Students coming out of the high schools can be very well prepared to succeed but it's their choice.  
-- A teacher

There is a wide range of preparedness among graduates- some are very prepared while most are 'not great.' A 'can do' attitude is a big strength of those who succeed. – Local Government Official

There are a lot of motivated and talented kids at high school who will succeed but only 10% are well prepared and driven. –Businessperson

All students can be prepared for their post-school lives if they take advantage of what's available. Sheridan offers AP classes and good teachers so everything depends on students' motivation. --An attorney

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<sup>22</sup> This study was a “needs assessment” and as such, purposefully focuses on identified needs and suggestions. This is based upon the premise that, no matter how good the educational system is it can always be improved. However, even though results focus on needs one should not lose sight of the general high level of satisfaction with schools in the broader Sheridan community.

<sup>23</sup> By “Sheridan” we are referring to the broader Sheridan County community, which includes Sheridan school districts #1, #2, and #3.

Passive students defeat themselves. If students put in their time, they can succeed. --A Sheridan College teacher

According to respondents, a **small but substantial minority of students in Sheridan County lack focus, direction, and motivation.**

"Kids can't see opportunities." -- College staff member

A weakness of the schools is trying to get kids to set goals at an earlier age."  
-- Vocational educator

A recurrent theme is that students need to be focused and have direction, the implication being that schools, community, and parents need to do what they can to encourage a sense of purpose in students.

Kids who were all-star athletes and straight-A students, bright and personable, weren't applying to any college. They were intimidated by the process. -- Parent

Several suggestions came out regarding the area of better and earlier career counseling so that students have a clear sense of purpose and direction established early on (discussed in further detail under Theme #7). At the same time, several respondents explicitly noted that it was the **responsibility of parents to be actively involved in their children's future** and that they should be the ones pointing out available options.

"Don't expect schools to do what parents should be doing." --Businessperson

Let's put more responsibility on the parents to explain why kids don't succeed.  
-- Businessperson

Indeed, one employer basically stated that the successes or failures that the youth encounter ultimately rest with their parents. That being the case, as the next theme suggests, a small but substantial minority of students may not be getting such guidance.

**THEME #2: A noteworthy minority of students (20% or so) are foundering somewhat within the educational system, either because of lack of motivation and direction or because they do not fit into the traditional system.**

Among all of the groups of interviewees, there seemed to be a consensus of 80% as a figure representative of those who are willing to be taught and who eventually will succeed at something. There remains, however, a disturbing 20% faction of students who are perceived as not caring and/or not wanting to learn. This underachieving student population is perceived as often being left to their own devices.

Teachers are focused on students who can succeed and others are left to fall behind (like my son).  
-- A father of a JHS student

***THEME #3: While students who are going to college are generally well-prepared, preparation levels are more questionable for students not going directly on to college.***

The vast majority of students, employers, parents, and educators agreed that Sheridan County students were indeed prepared to attend college. Their perceptions of the students' preparation levels for work was, however, much more mixed. Although perceptions about students' preparation for employment varied greatly depending on who you asked, there was general consensus that many students lack basic life, pre-employment skills, professionalism and direction. The view that "students are well-prepared for college and less prepared for the workforce" often was expressed by respondents.

A large number are really prepared for college, however the students are not as prepared for the workforce. My classes are the only ones that have kids really working. – Vocational educator

I don't think anything can prepare you for what you see out in the real world. -- A student

Kids on the college track aren't being challenged enough, while those who want to be electricians and plumbers aren't prepared at all – Local government official

***THEME #4: Students need an increased awareness of the real world and preparation in the "soft skills" necessary to succeed in that world.***

According to many parents, employers, educators and students themselves, students do not have an awareness about what it takes to succeed in the real world. Words such as "sheltered," "innocent," "naïve," and "vulnerable" were commonplace.

They have no clear vision of the future and career and what it takes to get there. – A parent

The size of Sheridan may indeed lend itself to producing sheltered youth. For instance, one employer noted that it's easy to give students a list of eight to 10 contacts for Christmas jobs or to know a student employee's parents and therefore be more forgiving for any problems that may arise. Another employer stated that the "security of the community makes them uninspired," suggesting that this vulnerability produces a lack of initiative on the part of the students.

Furthermore, some respondents believed that the youth were unrealistic in terms of their goals and beliefs. They were perceived as being ignorant in terms of how much things cost, what it takes to get a job, and so forth. For instance, one employer stated that only 10% of student applicants hand in a resume, either because they do not know how to complete a resume or are simply unaware of their importance in the employment process.

They have no clear vision of the future and career and what it takes to get there. -- Parent

Most of them just show up looking for a job to get a paycheck and otherwise have no idea what the job is about or what was expected of them. – Local employer

Respondents offered two suggestions for improving upon students' levels of awareness. First, it was suggested that we must increase awareness of career options and what it takes to succeed in the chosen profession at an earlier age – in junior high school, for example. This will allow students to be more focused during their high-school years so they can gear their class schedules toward their goals. Second, students should get more opportunities to learn life skills needed to function within this economy. In fact, the students themselves considered courses such as keyboarding, accounting, math, English, and skills such as how to buy a car, how to keep a checkbook, information about taxes, getting loans, and establishing credit as most useful to them, in part, because these were some of the few courses in which they could see the relevance of what they were learning.

High school graduates lack practical, real-world problem-solving skills - especially those requiring math. The schools might offer more hands-on experiences and provide outreach and internships so students learn what the real world expects of them. – Father of two

Schools focus too much on school skills rather than life skills. People skills are not taught in school. Many good students aren't well-rounded. – Businessperson

Employers and vocational educators especially mentioned the need for students to learn pre-employment skills that target their appearance, demeanor, and attitude as it relates to employment. Several felt that students were sorely lacking in the areas of punctuality, creativity and the demonstration of initiative.

High school students are fluent in academics but weak in reality, ethics and responsibility. – Local employee

Their weaknesses are utilizing what they know and knowing how to get it out there. They are missing the creativity part. – Vocational educator

There needs to be a commitment to attendance and [the students need to learn] people skills and how to present themselves. Speaking skills are also essential, especially when promoting oneself for a job. – Vocational educator

Students need constant supervision and have to be told when to get things done. Without instructions, they're stuck! -- Teacher

***THEME #5: Academics and vocational education need to be more integrated. Students need to see how learning is relevant to the real world and can be “applied.”***

Students, especially, as well as other respondent groups, emphasized the need to make learning relevant. While most believed that the teachers in the community are very good, in “academic” classes especially, there often is a gap between “book” knowledge and application thereof. Students, in particular, made note of this in the focus groups and specifically mentioned that it often is difficult for them to see the relevance of what they are learning. Vocational teachers and classes apparently require a lot more application and are more likely to arrange for students to visit real working situations or to bring members of the community in as guests in the classroom. The dichotomy between “academic” and “vocational” is perceived as being much more striking

in the larger Sheridan High School,<sup>24</sup> where teachers are in departments and are not as likely to interact with one another as in the smaller school districts. Additionally, respondents said that **all teachers need to be more conscious of the vocational needs of the students and be supportive of their desires to fulfill these needs.** It should be noted, however, that a few respondents explicitly said that teachers oftentimes simply cannot deviate from the curriculum because of state standards and the drive for accountability. In addition, there are no rewards from the state for career-building

Teachers can make things relevant to our daily lives but you need to have the right teacher. – Student

Teachers can't teach what the real world is about because they don't have any real -world experience. --Parent

Whitney needs to look at providing alternative teaching methods to make learning relevant to what is happening in the outside world. --Former teacher

***THEME #6: More emphasis is needed on vocational training and the trades.***

According to many parents, educators and employers, high schools are geared toward students who are college-bound, thereby making it difficult for students who are interested in the trades. This seemed to be particularly true of Sheridan High School. Employers, in particular, felt that "students coming out of high school do not have many strengths for physical labor and crafts." One government worker said that many vocational classes were cut in the 1980s, a move he believed unfortunate. He spoke of a brother who was guided by the school into a technical area and now is earning a six-digit income. Some students also realized that they needed to develop applied skills and found that the skills learned in vocational courses were critical. In fact, when asked what courses were most relevant in terms of being able to apply their skills, they mentioned machine shop, welding, woods, accounting, and agriculture classes.

Schools used to have more shop time... Schools need to provide more practical education and teach trades. -- A government official

They are prepared to learn [a trade] but are lacking the skills to gain experience.  
--A contractor

We need to give pride back to technical skills. – A teacher

High schools are under pressure from colleges and universities to feed them students....  
Educational facilities should be built that support students going into crafts.  
--A contractor

In addition, some employers believed that supply is not meeting demand within the Sheridan community. One employer said that there is a shortage of carpenters and plumbers in the area. Employers said that the medical field and energy business also are growing, and medical

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<sup>24</sup> A common perception expressed about SHS is that the vocational track is viewed as "less than" and as having less stature as compared to the college track. This dichotomy was less marked in the smaller districts where students and teachers are more likely to have constant interaction with everyone.

personnel, welders, and mechanics are required to support these industries, yet little is being done. Another entrepreneur indicated the need to encourage entrepreneurship because the community is losing youth to start -up companies outside of Sheridan.

A community can grow so much without people to fill jobs. --A banker

The students with talents in vocational areas might not be overly motivated to seek out alternative routes to get to where they are going and might give up and go nowhere. The community thereby loses talent that could have been helped. --A teacher

Respondents also made suggestions as to what can be done. One employer suggested that there be more focus toward development of crafts/service skills, including provision of apprenticeships and on-the-job training. A teacher also suggested that money not be directed solely to those who are academically superior and going to college. Instead, students deciding to go into the trades should be offered scholarships and financial aid.

It also should be noted that at least two respondents felt that concern about lack of vocational training was "bunk." Rather than focus our efforts toward providing these opportunities to our youth, we should provide a well-rounded individual and empower them with the ability to learn, seek out information, and make decisions on their own. So if they decide to go into a trade after graduating from high school, they will know *how to learn* the trade.

In secondary school, we need to give them enough background in enough areas so that they can discover potential interests and strengths but the actual training happens at community or technical school. --School Board member

Several interviews were conducted with vocational educators within the Sheridan community. It should be noted that, in general, vocational education classes are considered electives. Whereas all teachers perceived their classes as valuable elements of education and recognized the importance of broadening the classes for those students who want to go on to trade schools or directly into the workforce rather than on to two- or four-year college/university programs, they acknowledged that the students had less time for electives as more academic courses are becoming required for graduation.

Many students who lean toward vocational subjects do not do well in academic areas and often must repeat classes, leaving even less time for electives. Typically, students who take vocational classes as electives do so because they want to, because a counselor may have advised them to, through word of mouth from other students who have taken the classes, or because they think the courses or teachers are easy. Particularly in Sheridan #2, there seems to be a consensus that the schools offer vocational education classes but they do not promote them – nor does scheduling allow much opportunity for students to take vocational classes. Often, students only have the opportunity to take one semester of vocational classes, if any. There also was a plaint that value be attached to the work done by tradesmen in the community and in the schools. If the community does not value the products and work of the types being done in vocational classes, students will be less likely to enter a profession that they believe is not valued or respected.

We desperately need to keep vocational classes and they need to be promoted rather than used as a dumping ground. -- Vocational educator

The school has gotten heavy on AP classes and is pushing concurrent enrollment. The real focus is on meeting standards so the message is that Voc Ed is ‘less than’. – Vocational educator

**THEME #7: Resources and support are available to students but some are insufficient.**

It is clear from interviews and focus groups that much of what children learn about the possibilities in the job market, the possibilities afforded by higher education, and how knowledge learned in the classrooms is applied in practical situations is learned from the parents and educators. In addition, some work experience and internships are available to those students who apply themselves and take advantage of such resources.

While the majority of parents, educators, and employers acknowledge that the schools and community are able to provide students with the resources needed to succeed, however, many also claim that more is needed. For instance, opportunities for job shadowing, internships, and taking college-credit courses are available only to a limited number of students. Several students said they believed that internships and dual enrollment classes are extremely beneficial because they offered them exposure to careers and work experience.

More adults in community need to be mentors or coaches. --Businessperson

Job shadow day was an eye-opener for students who worked with the interior designer. 'You mean it's more than you show up at someone's house and tell them this or that would look pretty there? You actually use math to measure and you work long hours.' --Businessperson

It's good to learn whether you like working with children before taking 4 years of college courses and then finding out you hate it. --A student referring to internships

The Tech course offered by Sheridan College was really useful because they told us the kinds of jobs that would be available to us. – A student

One government official and parent believes that schools should invite more representatives from different colleges to offer a more diverse sampling of institutions of higher education. Parents and employers also believe that better counseling is needed to inform students of opportunities available to them, and that more mentors in the community should be tapped. The student strategic planner position like the one at Sheridan High School was noted as a valuable asset; indeed, one parent specifically mentioned that such a position is needed in District #1. Students felt that the career planning class was not particularly useful, and several respondents remarked that career counseling is insufficient if it is only done on the computer or by testing, as that only gives an indication of what a student's strengths are – but not what options are available in terms of using those skills. Thus, there is a clear expressed need for more and better career counseling.

The career planning class was not at all useful. The resume templates they had us use were brainless – all we had to do was fill in the blanks. – A student

In high school, the only career guidance I got was on the computer and it only told me what I was good at but not what to do with it. – A current 19-year old student at Sheridan College

School counselors only serve the role of scheduling advisors. -- A single parent with daughter in high school

Sheridan High did a poor job in counseling for opportunities and gave no advice regarding money.... I'm as much at fault. -- A Parent

Better counseling is needed to make kids understand the skills that are needed, financial aid available and to help kids make decisions. --A banker

There also appears to be some lack of awareness of services already available out in the community. For example, a parent of a Sheridan High student mentioned that his daughter did not seek counseling and guidance services because of a lack of awareness.

There should be a place in the community, outside of the schools, where kids could pick up literature on different career paths. -- A mother of two

A few employers and educators believed that opportunities and support were available to all students but that students are not taking advantage of these resources. This is related to the theme discussed previously, in reference to students being naïve in terms of what is needed to succeed in the world. That is, some educators and businessmen believe youth do not show initiative or motivation as it relates to their futures. Another businessperson thought that students saw job shadow day as a "day off from school and free lunch." And although the experience can be enlightening, it was perceived that some students do not take it seriously.

Students also spoke of problems with the school technology available to them. One student complained about the lack of up-to-date equipment used during vocational courses. In addition, the high school uses Macs, whereas most students have IBM -compatible computers at home. Therefore, when a resume is created at school, students are unable to print it out at home. Thus a fit is needed between the technology available and the technology that students need.

***THEME #8: The educational system needs to become more “individualized” so that it can be tailored to the unique needs and strengths of individual students.***

One area of agreement, it can be said, is that not all students are "smart" in the same way and that "one-size-fits-all" testing or curriculums leaves out many talented individuals who express themselves in different ways.

One size doesn't fit all. Yet (our) current system only allows students to be tracked into college-bound or agriculture programs. --A teacher

In high school, kids need a system with more opportunity to go in directions where they have strengths. --A teacher

[There is a] generalized curriculum (like biology) rather than personalized and tuned into personal interests. Nothing is individualized! --A student

All constituent groups (parents, students, educators, and employers) emphasized the need for even further individualization in the schools. But how to coordinate the need for individualization in the context of new state graduation requirements is as much a challenge for all Sheridan school districts as it is for other districts throughout the state of Wyoming. Not all students have the same goals, want to end up in the same place, have the same interests, aptitudes, or abilities, yet all must jump through the same hoops to graduate. There is a need to integrate core curriculum subjects with areas of student interest and accommodate different learning styles. Teachers also said that, as a result of core curriculum, students have fewer opportunities to take electives. Current scheduling does not allow for flexibility so students can't sample different course offerings. And as previously discussed, it was felt that schools need to revise their curricula so that non-college bound students also receive adequate preparation, and to ensure that life skills are taught.

Respondents also raised some issues about college preparation courses offered at local high schools. A relatively small proportion of students who take AP courses actually applies and get college credit. Students at District #1 also wanted to see more AP classes offered. Most parents, students and educators were more supportive of concurrent courses, in which Sheridan College credit is automatically given if students pass. In fact, an educator stated that about 1,100 high-school students are currently taking classes at Sheridan College via concurrent enrollment. Another parent believed that District #2 was failing to take advantage of this arrangement with Sheridan College.

It appears to me that the top 1/3 of any given class is well prepared to go on. Maybe we spend a lot of time with some of the bottom kids with special programs, but I'm not sure that the middle third gets lost in the shuffle. --School Board member

***THEME #9: Lack of opportunities in Sheridan community are accompanied by a general reluctance to grow or expand.***

A theme echoed repeatedly by many was that people in the community resist growth, are negative about progress, and that this attitude impedes expansion of job opportunities.

Many kids leave the community because of a lack of opportunities. There are not a lot of jobs in Sheridan. --A mother of five

More industry should be encouraged but the pervasive mood is to keep Sheridan a retirement community. This is negative and backward thinking. -- Local resident

The community doesn't want economic development. Career planning sends kids out of state. Students read about or are told about jobs but they don't see them in Wyoming. -- Sheridan College staff member

## **VI. Pulling It All Together: Summary & Recommendations**

This study pulled together information from a variety of different sources, and several of the same results emerged regardless of the data source.

First, results of the focus groups, interviews, student climate surveys, and follow-up studies all point up the need for Sheridan County students to have more real-world experiences. Potential ways of doing this include: 1) exposing students to more authentic work experiences through internships, apprenticeships, job shadowing, mentorships, and so forth; and 2) integration of critical workplace skills into the academic curriculum.

Elaborating on these suggestions, current opportunities for such experiences as internships, apprenticeships, and job shadowing are only available to a limited number of students in most of the high schools.<sup>25</sup> Such opportunities should be expanded, and all students should be encouraged to participate in them – not just “vocational” students. Indeed, one of the findings from this report is that the majority of students are, in fact, *vocational*, in that they find themselves in the workplace in the immediate years following high school and college (either solely or in concert with attending school).

Next, all teachers – not just vocational teachers – need to connect careers to subject matter. Students need to see the relevance of what they are studying and how it can be applied to real-world settings. Perhaps, if academic instructors can show the relevance and applications of what students are learning, then more students will be motivated to try harder and succeed. Lewis (1997)<sup>26</sup> in his summary of successful school-to-work programs found that the failure or success of vocational education programs often hinges upon teacher attitudes. Teachers are often concerned that incorporating practical and hands-on learning will detract from the more traditionally defined academic skills they consider critical to their students' success in standardized testing, college admissions, and more advanced study. Therefore, it is essential that teachers be provided with the time, resources, leadership, and support necessary to integrate work-based learning into all aspects of the curriculum.

Providing *all* teachers with time and professional development designed to give them experiences with employers and work-based learning may also serve to break down traditional barriers between vocational and academic education. Notably, academic and vocational programs appear somewhat more integrated in Districts #1 and #3 and vocational programs more highly regarded there than in District #2. Vocational education tends to be seen in a somewhat negative light in District #2 in that there exists the perception of vocational education as a lesser than alternative for the more poorly prepared students. Such a stigma is common and has been well-documented elsewhere in the research literature<sup>27</sup>. Indeed, vocational education's image problem has been recognized by the American Vocational Association, which devoted three

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<sup>25</sup> For example, District #1 has a .5 semester hour class on mentorship; District #2 has a very limited number of internships available; District #3 has job shadow days.

<sup>26</sup> Lewis, M. (1997). Characteristics of Successful School-to-Work Initiatives: Information Series No. 370. Columbus, OH: ERIC Clearinghouse on Adult, Career and Vocational Education.

<sup>27</sup> Boesel, D. & McFarland, L. (July, 1994). National Assessment of Vocational Education: Final Report to Congress, Summary and Recommendations (Vol. 1). Washington: U.S. Printing Office.

journal issues to this topic. There are many factors which contribute to negative attitudes towards vocational education. First, there is a general prejudice against blue-collar jobs. Parents want to see their children obtain a higher education because it is believed they need a college degree to get a good job<sup>28</sup>. Guidance counselors are often reluctant to steer students towards vocational programs or blue-collar jobs. Also, low-achieving students may be directed towards vocational programs, which may make it more difficult to maintain program quality and rigor. Changing the stigma associated with vocational education programs is not an easy fix since it involves changing people's attitudes and beliefs. However, it is critical that *value* be attached to vocational education and that it be viewed as a challenging and worthy option for students.

Providing students with more real-world experiences through involvement in work experiences and integration of vocational and academic education also might help address two other major findings of this study: 1) that students are much less prepared for the world of work than they are to pursue higher education; and 2) that there is a substantial proportion of students who lack focus, motivation, and direction.

The follow-up study, district data, phone interviews, and focus groups all support the finding that students are much less prepared to enter the workforce than they are to go on to higher education. To be sure, Sheridan schools deserve kudos for the excellent job they are doing in preparing students to pursue higher education. Nonetheless, improvement is needed in preparing students to enter the workforce. Specific types of skills and competencies that need to be developed among Sheridan County students include the following: managerial & leadership skills; attendance & punctuality; teamwork & cooperation; the ability to be self-directed, take initiative, and complete tasks; organizational skills; problem solving skills (particularly in District #2); writing; higher-order math skills; and general life skills. For Sheridan College students, computer literacy is a critical area in need of improvement.<sup>29</sup>

The finding that a substantial minority of students lack direction and motivation is a noteworthy one. Steps need to be taken to help children think about the future early on. Earlier and more in-depth guidance and career counseling<sup>30</sup> may be one way to address this, as may be early exposure to careers. Counseling may occur formally through counselors or through adult mentors in the community, with whom students can be paired. Another manner of addressing this might be through parental education. Parents need to be informed of the opportunities available to their children so that they can serve as additional "guidance counselors."<sup>31</sup>

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<sup>28</sup> Note that this perception shows a lack of awareness of labor market information. A recent survey showed that most adult respondents estimated that more than 40% of jobs required a college degree – as compared to actual labor market statistics which put it more at 20% or less.

<sup>29</sup> Again, such skills cannot just be taught in vocational courses as a majority of students enter the workforce regardless of whether they are college bound or not.

<sup>30</sup> The ratios of guidance counselors to students are as follows: Sheridan #1: 3.5 for 325 = ratio of 93 kids per counselor

Sheridan #2: 14 for 1,080= ratio of 77 kids per counselor. Sheridan #3: 0 for 43.

<sup>31</sup> It should be recognized that, unfortunately, some parents won't do this, even if provided with resources. It is important that a "safety net" be established so that students get such direction and exposure from other sources in addition to parents.

Certainly, there is a need to revisit the types of vocational offerings available, in light of current labor market trends. In particular, expanding the number of health and technology offerings available at the secondary and postsecondary level should be considered, along with a possible decreased emphasis on agricultural areas, which are not experiencing growth. Certainly the results of this study support that Sheridan College should consider offering a technology degree. In addition, both secondary and postsecondary vocational curricula should be continually updated to take into consideration evolving technologies.

In sum, recommendations emerging from the Whitney Foundation educational and vocational needs assessment revolve around the following:

- ✓ **Build “21<sup>st</sup> century literacy,”** → Provide a base of strong academic skills as well as pre-employment and employability skills for *all* students. Critical areas in need of development include “soft skills,” such as leadership and managerial skills, punctuality, task completion; problem solving; and proficiency in technology.
- ✓ **Facilitate Direction, Interest & Motivation** → Offer early career selection & exposure; connection with “real-world experiences;” opportunities for mentorships, etc... Make learning relevant through integration of vocational and academic curricula. Attach stature to vocational education so that it is not a “lesser-than” alternative. Develop a process for identification and early intervention for at risk children.
- ✓ **Identify Pathways and Form learning linkages** → Enhance connections between high schools, vocational schools, postsecondary institutions and the workplace so that students are motivated to step up personal goals and have realistic views of real working environments.
- ✓ **Increased Guidance & Exposure** → Provide meaningful experiences to youth that help give them focus and direction and educates them about skills-demands and training opportunities to acquire such skills.
- ✓ **Reevaluate Program Offerings** → Increase enrollment and opportunity for information technology and healthcare programs. Ensure a process wherein high school and postsecondary vocational curricula are continually updated to reflect changing job-market trends.

## **APPENDIX A**

### **OPEN-ENDED RESPONSES**

Responses to the question, "In general, were there any educational or vocational opportunities that you would like to have had while attending school in Sheridan County that you did not get?

Comment	Sheridan #1	Sheridan #2	Sheridan #3
COLLEGE CREDIT COURSES	1	3	1
MORE MUSIC PROGRAMS/CLASSES		3	1
LATIN CLASSES		2	
MORE AUTOMOTIVE CLASSES/PROGRAMS		2	
MORE CAREER CLASSES IN DRAFTING, ENGINEERING		2	
DIVERSE CLASSES	2	1	
LIMITED EXTRA CURRICULAR	2	1	1
MORE AG PROGRAMS	2	1	
ART DEPARTMENT, POTTERY	1	1	
ROTC	1	1	
ADVANCE SCHOOLING		1	
BASIC EDUCATION, ENGLISH AND MATH SKILLS		1	
BEING LEFT ALONE BY THE PRINCIPALS		1	
BETTER ENGLISH		1	
BETTER WELDING PROGRAM		1	
BROADER NETWORK BACKGROUND		1	
BUSINESS CLASSES		1	
CAREER SEARCHING		1	
COMPUTER GRAPHICS		1	
DID NOT LIKE A LOT. WORTHLESS REQUIRED COURSES (I.E., PE)		1	
DRIVER EDUCATION		1	
ITALIAN		1	
MORE CAREER ORIENTED STUFF		1	
MORE EMPHASIS ON COLLEGE PREP		1	
MORE FIELD EXPERIMENTS IN THE SCIENCES		1	
MORE FINANCING BALANCING CHECK BOOKS		1	
MORE OUT-OF-CLASS STUFF, ON SITE EXHIBITS/DEMONSTRATIONS.		1	
MORE SCIENCES		1	
MORE THEATER CLASSES		1	
MORE VOCATIONAL OPPORTUNITIES TO LEARN ABOUT BUSINESS WORLD		1	1
MORE VOCATIONAL-MACHINE SHOP HAD NO KNOWLEDGEABLE STAFF		1	
NO COSMETOLOGY SCHOOL THERE OR A TECH SCHOOL		1	
OUTDOOR ACTIVITIES LIKE ROCKCLIMBING, ETC INSTEAD OF PE		1	
PROBLEMS WITH THE ADMINISTRATION AND FACULTY		1	
RESEARCH SKILLS		1	
SHERIDAN COLLEGE ENGLISH TEACHERS FELT STUDY HABITS WERE POOR		1	
SOCIAL CONDITIONS HARMED LEARNING CONDITIONS		1	
SUPPORT FROM SCHOOL		1	
TEACHERS WHO CARED		1	

THEY WOULDN'T LET ME COME BACK		1	
TOO MUCH MONEY IN ATHLETIC PROGRAMS		1	
TRAVEL MORE FOR FIELD TRIPS		1	
CALCULUS	2		
BETTER COUNSELOR, MORE AP	1		
GLASS BLOWING PROGRAM	1		
MORE SPORTS OPPORTUNITIES	1		
MORE VARIETY OF ART CLASSES	1		
SCHOLARSHIP INFORMATION FFA	1		
MORE FOREIGN LANGUAGE			1
NO HONOR CLASSES			1

Responses to the question, "In general, were there skills or abilities that you needed for your post-school endeavors to which you were not exposed while at school in Sheridan?"

Comment	Sheridan #1	Sheridan #2	Sheridan #3
ADVANCED MATH SKILLS	3	7	
WRITING ABILITIES		5	
STUDY SKILLS		4	
COMPUTER SKILLS		3	
ART TEACHERS WEREN'T VERY GOOD, DIDN'T SPEND ENOUGH TIME		1	
CHEMISTRY		1	
DANCE TEAMS, MORE THEATER AND MUSIC		1	
EMPHASIS			
ELECTRICAL TRAINING		1	
ENGLISH SKILLS		1	
HIGHER LEVEL OF COMPUTER EDUCATION (PROGRAMMING CLASSES, ETC)		1	
HIGHER LEVEL SCIENCE CLASSES		1	
MONEY MANAGEMENT		1	
MORE ADVANCED MECHANICS CLASSES		1	
MORE ELECTRONIC TRAINING		1	
MORE EMPHASIS ON WRITING		1	
MUSIC CLASSES		1	
NO ONE EVER CAUGHT ON THAT I COULDN'T READ WELL		1	
OCEAN RELATED CLASSES		1	
OPERATING MACHINERY		1	
PILOT CLASSES USED TO BE OFFERED AT HIGH SCHOOL		1	
SAFETY SKILLS		1	
TECHNICAL WRITING VS REGULAR WRITING		1	
TIME MANAGEMENT,		1	
TYPING		1	
WASN'T A SHOP CLASS THAT I LIKED-AUTO MECHANICS		1	
WASN'T ABLE TO GET IDEAS I WANTED		1	
WELDING CLASSES		1	
ART DEPARTMENT, SMALL SCHOOL, NOT AS MUCH OPPORTUNITY	1		
CALCULUS	1		
LACK OF CLASSES OFFERED	1		1
SCIENCE AND MATH	1		
NOT AS BIG OF SCHOOL OR VARIETY			1

**HIGH SCHOOL RESULTS**  
**Positions Currently Held by Former Students**

Position	Frequency
CLERK	11
WAIT/SERVER	7
CHILD CAREGIVER	3
LAB TECHNICIAN, RETAIL SALES	3
LABORER	3
CNA	2
DELIVERY PERSON	2
OFFICE ASSISTANT	2
RANCH MECHANIC, HANDYMAN	2
SECRETARY	2
TEACHERS AIDE	2
TELLER	2
ACCOUNTING OFFICE ASSOCIATE	2
ARTISAN	1
ASSISTANT HALL DIRECTOR	1
ASSISTANT KITCHEN MANAGER	1
BARISTA	1
BELLMAN	1
CHEF	1
CIVIL ENGINEER	1
CONDUCTOR	1
DRILLER'S HELPER	1
EQUIPMENT OPERATOR	1
FORESTRY AID	1
FRONT OF HOUSE MANAGER	1
GOLF SHOP ASSISTANT	1
GROUND STAFF	1
HABILITATION TRAINER	1
HOUSEKEEPING	1
INSTALLER	1
JANITOR	1
KENNEL HELP	1
LAUNDRY TECH	1
LUB RACK TECHNICIAN	1
MEAT PROCESSOR	1
MECHANIC	1

OILER	1
PHYSICAL THERAPY AID	1
PROJECT SUPERVISOR	1
PUMPER IN METHANE FIELD	1
RECREATION ASSISTANT	1
SERVICE TECHNICIAN	1

**HIGH SCHOOL**  
On-the-Job Training Received at the Beginning of Employment

Training	Frequency
COMPUTERS	9
JOB SPECIFIC, PRODUCT KNOWLEDGE	6
EQUIPMENT OPERATIONS (Unspecified)	5
CASH REGISTER	4
FOOD SAFETY, COOKING	4
COMPANY POLICIES & OPERATIONS	3
CUSTOMER SERVICE	3
CHILD CARE, LESSON PLANS, ACTIVITIES	2
CONTINUING EDUCATION CLASSES	2
ORIENTATION TO FACILITY	2
ANALYZING HIGHWAY PROJECTS	1
BANQUET SETUPS, TEAR DOWN, PREPARATION, ORGANIZATION	1
BLACKSMITHING & METAL FABRICATION, EQUIPMENT OPERATIONS	1
BOOK KEEPING, ACCOUNTING, BUSINESS MATH, WRITING	1
CHAINSAW, DEFENSIVE DRIVING, FIRST AID/CPR, FIRE SCHOOL	1
CHECKING, BOOK KEEPING, ORDERING GUN	1
CLEANING AND MEDICATING ANIMALS	1
CLEANING CARPETS, STRIPPING AND REFINISHING FLOORS	1
COMMERCIAL LOAN ASSISTANT	1
DOCUMENTATION, PROGRAMS, INTERACTIONS	1
DRILL AND RIGS	1
DRIVING SEMIS	1
FILM PROCESSING, JOB SPECIFIC	1
FIREFIGHTING, MECHANICAL SKILLS, GOV POLICIES	1
FLOORING INSTALLATION	1
GOLF SHOP FUNCTIONS	1
HOUSEKEEPING, DISINFECTING, ETC	1

HOW TO FIX HOT TUBS	1
INDIVIDUAL CARE AND CARE PLANS	1
LAUNDRY, HOSPITAL PROCEDURE	1
MAKE ICE CREAM CONES--OTHER MENU ITEMS	1
MEDICAL OFFICE WORK, APPOINTMENT MAKING	1
PERSONAL SKILLS, ORGANIZING ACTIVITIES, PROBLEM SOLVING	1
PHYSICAL THERAPY EQUIPMENT, SCHEDULING, PATIENT EXERCISES	1
PROBLEM SOLVING, DRYING AND GRINDING DIRT, MACHINE USE	1
PROJECT SUPERVISION, CODING	1
QUILTING MACHINE SEWING MACHINE	1
SALES, PRICING	1
SAWS, DRILLS	1
SUPERVISOR TRAINING, TRAINING IN CATERING AND SERVICE	1
THE WHOLE JOB IS A TRAINING SITUATION-- MUSIC	1
TRAINED AS BUSER, ROOM SERVICE, TABLE SETTING	1

SHERIDAN COLLEGE

Other Programs of Study		
	Frequency	Percent
MISSING	103	28.93%
NON.SPECIFIED	96	26.97%
PD	60	16.85%
HIGH SCHOOL STUDENT	43	12.08%
OFFICE	7	1.97%
DENTAL.HYGIENE	6	1.69%
POLICE.SCIENCE	5	1.40%
HE	5	1.40%
PRE.PROFESSIONAL	3	0.84%
DIESEL.TECH	2	0.56%
ACCOUNTING	2	0.56%
GENERAL.SCIENCE	2	0.56%
ART	2	0.56%
HISTORY	2	0.56%
PSYCHOLOGY	2	0.56%
HOSPITALITY.MGMT	2	0.56%
MACHINE.TOOL.TECH	2	0.56%
MASSAGE.THERAPY	2	0.56%
ENGINEERING	2	0.56%
GENERAL.TECHNOLOGY	1	0.28%
ANIMAL.SCIENCE	1	0.28%
POLITICAL.SCIENCE	1	0.28%
BIOLOGY	1	0.28%
PHYSICAL.ED	1	0.28%
MUSIC	1	0.28%
ENGLISH	1	0.28%
WELDING	1	0.28%
Total	356	100.00%

## SHERIDAN COLLEGE

Responses to the question, "In general, were there any educational or vocational opportunities that you would like to have had while attending school in Sheridan County that you did not get?"

Note: The comments below were placed into the following categories:

- 1. More diverse course offerings
- 2. Improve existing courses/programs
- 3. Lack of resources (e.g. no theatre, improve computers)
- 4. Offer four-year degree
- 5. Scheduling changes (e.g., more night classes)
- 6. More variety of degrees offered
- 7. Increase in satellite courses

Comment	Frequency
MORE COMPUTER CLASSES	7
TO BE A FOUR YEAR	6
HAVE MORE DIVERSITY IN COURSES	4
NEED TO GET AN A BETTER ELECTRICAL PROGRAM	4
PSYCHOLOGY CLASSES	3
ACCOUNTING	2
CLASSES NOT AVAILABLE AT GOOD TIMES	2
FOREIGN LANGUAGE	2
PREFERRED BACHELORS DEGREE IN DENTAL HYGIENE	2
SATELLITE COURSE	2
THERE WERE NO ART CLASSES OFFERED	2
AUTISM CLASSES, GENERAL SPEECH CLASSES	1
AVIATION FLIGHT TRAINING	1
BETTER AG PROGRAM	1
BETTER HISTORY PROGRAM	1
BETTER PROFESSORS	1
BIGGER SCHOOL, MORE FACILITIES, COMPUTER LABS	1
COMPUTERS WERE NOT UP TO DATE AT TIME I TOOK COURSE	1
CRIMINAL JUSTICE	1
DAYCARE FOR KIDS	1
FAIR TREATMENT IN DENTAL HYGIENE PROGRAM	1
GILLETTE CAMPUS DOESN'T HAVE NEEDED CHEMISTRY CLASS	1
GILLETTE CAMPUS HAD FEWER FACILITIES	1
HIGHER LEVEL MATH	1
I WOULD LIKE TO SEE EQUINE STUDIES	1
INDUSTRIAL ARTS	1
LIMITED CLASSES	1
LOCATION OF CLASSES	1
LOSS OF INSTRUCTORS AND THEREFORE CLASSES	1

MASSAGE THERAPY	1
MATH, GOVERNMENT	1
MEDICAL CODING CLASS. NEEDS TO BE A CREDITED CLASS	1
MENTORING	1
MINING ELECTRICAL	1
MORE CLASSES FOR ADDICTION COUNSELING	1
MORE INTERNET CLASSES THROUGH UNIVERSITY OF WYOMING	1
MORE LITERATURE CLASSES/MUSIC CLASSES	1
MORE MECHANIC COURSES	1
MORE NIGHT CLASSES IN THE RIGHT AREAS	1
MORE OPTIONS FOR CLASSES AND MORE PROGRAMS	1
MORE TECHNICAL PROGRAMS	1
MORE TOWARDS SURGERY, SATELLITE PROGRAM FOR PHYSICIANS ASST	1
MUSIC, AFRICAN AMERICAN HISTORY	1
NEED MORE WITH EXERCISE SCIENCE	1
NEEDED COMPUTER HELP WITH EDUCATION	1
NICER IF LARGER COLLEGE WITH MORE VARIETY	1
PREFERRED 4YEAR NURSING DEGREE	1
PRE-VET PROGRAM COULD HAVE BEEN BETTER	1
PULLING DEGREE PROGRAMS	1
QUICKEN	1
SCIENCES	1
SOCIALLY AND CULTURALLY LACKING	1
SOME MORE OFFICE BASED CLASSES FOR YOUNG WOMEN	1
SOME THINGS, PARALEGAL AREA	1
THEATER PROGRAM LACKING A THEATER	1
TIME	1
VOCATIONAL FOR BUSINESS	1
WANTED 2 DAY/WEEK CLASSES	1
WASN'T CHALLENGING	1
WELDING, CARPENTRY	1
WIDER VARIETY OF COMPUTER REPAIR COURSES	1
WISH I COULD'VE GONE TO THE SCHOOL I WANTED	1
WOULD HAVE LIKE TO BE ABLE TO RECIEVE EDUCATION DEGREE	1
WOULD LIKE TO HAVE TAKEN A GRAMMAR CLASS	1

## SHERIDAN COLLEGE

Responses to the question, "In general, were there skills or abilities that you needed for your post-school endeavors to which you were not exposed while at school in Sheridan?"

Note: The comments below were placed into the following categories:

1. Have more courses to teach needed skills
2. Computer skills
3. Business skills
4. Real world skills
5. Financial planning

Comment	Frequency
COMPUTER COURSES	3
ART CLASSES	2
COMPUTER SKILLS	2
FINANCIAL PLANNING	2
ACCREDITED COURSES SUCH AS THE MEDICAL CODING CLASS	1
ASPECTS FOR THE WORKFORCE	1
AUTISM, LEFT PALLET UPDATE	1
BETTER MEDICAL PROGRAM	1
BUSINESS SKILLS	1
CLINICAL SKILLS	1
COMPUTER TECHNOLOGY	1
DIESEL AND WELDING	1
DIPLOMA	1
EARLY CHILDHOOD CLASSES	1
ELECTRICAL COURSES	1
ENHANCE SPELLING COURSES	1
EQUIPMENT I WORK ON DON'T TEACH AT COLLEGE	1
FIRST SEMESTER WAS HALF ASSED. LACKED HANDS ON AND BUSINESS ASPECTS OF MASSAGE	1
FURTHER FOREIGN LANGUAGE CLASSES.	1
HAD A PROBLEM WITH MATH TEACHER CANT TEACH TOO SMART	1
HANDS ON COMPUTER REPAIR	1
HIGH SCHOOL DIDN'T OFFER COURSES APPLICABLE	1
HOW TO STUDY AND WORK HARD	1
LEARNING HOW MONEY WORKS	1
MATH, TEACHING DIDN'T HELP	1
MORE COURSE IN THE FIELD GEOLOGY	1
MORE DIVERSE SUBJECTS	1
MORE ELEMENTARY EDUCATIONAL COURSES, MORE ART	1

MORE HANDS ON WITH NETWORKING	1
MORE TRANSFER HELP	1
NEEDED POST CERTIFICATION FOR PEACE OFFICER	1
NETWORKING, PROTOCOLS	1
NOT ENOUGH OPTIONS FOR MAJORS	1
NOT ENOUGH PEOPLE TO COMPLETE REQUIREMENTS	1
NOT PREPARED FOR 4 -YEAR COLLEGE	1
NOT RECEIVING THE KNOWLEDGE	1
NURSING PROGRAM IS EVERY TWO YEARS, NOT EACH YEAR	1
PARALEGAL	1
PHYSICAL THERAPY,	1
PHYSIOLOGY	1
REAL WORLD EXPERIENCE	1
SPECIAL ED COURSES	1
VOLUNTEER HOURS IN CLINICAL SETTING	1
WEREN'T AS HARD AS REAL COLLEGE COURSES ARE	1
WHAT I NEEDED	1
WORK	1
WOULD LIKE TO SEE MORE MASTERS PRE -CLASSES, MORE PSYCHOLOGY	1

SHERIDAN COLLEGE

All Responses to question, "What are the top challenges you face as you look for employment or look to further your education?"

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BACK SURGERY SO NO LIFTING (1)  
COMPUTER LITERACY (1)  
FOREIGN LANGUAGE (1)  
HIGH TECH CLASSES ARE FOREIGN TO OLDER PEOPLE (1)  
NONE (1)  
NOT ENOUGH EXPERIENCE (1)  
BEING A NON TRADITIONAL COLLEGE STUDENT (1)  
ORGANIZING TIME TO BE IN TOWN (1)

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SHERIDAN COLLEGE

Positions Currently Held by Respondents

Position	Count
TEACHER	26
MANAGER	19
NURSE	16
ACCOUNTING	11
SALES REPRESENTATIVE	11
DENTAL HYGIENIST	9
SECRETARY	8
ELECTRICIAN	7
BUSINESS OWNER	6
RANCHER	6
CHILD CARE PROVIDER	5
CLERK	5
ENGINEER (ELEC. & MINING & Biomedical)	5
RECEPTIONIST	5
APPRENTICE ELECTRICIAN	4
BANK TELLER	4
CASHIER	4
CERTIFIED NURSING ASSISTANT	4
CUSTOMER SERVICE AGENT	4
MECHANIC	4
SPECIAL ED. TEACHER ASSISTANT	4
ADMINISTRATIVE ASSISTANT	3
COAL MINE WORKER	3
COMPUTER TECH	3
DELIVERY DRIVER	3
EQUIPMENT OPERATOR	3
FOOD SERVICE WORKER	3
OFFICE ASSISTANT	3
OPERATIONS CLERK - BANK	3
WELDER	3
CONCRETE WORKER	2
CONSTRUCTION FOREMAN	2
CONTROLLER	2
COOK	2
CUSTODIAN	2
DENTAL ASSISTANT	2

EMERGENCY MEDICAL TECH	2
HOSPITALITY SERVICE	2
LAB TECH	2
LIBRARIAN	2
LOAN PROCESSOR	2
MAINTENANCE	2
MEDICAL SUPPLY TECH	2
PRINCIPAL	2
PROJECT MANAGER	2
PURCHASE AGENT	2
REALTOR	2
SECURITY GUARD/ JANITOR	2
SELF-EMPLOYED	2
WAIT/SERVER	2
ACADEMIC ADVISOR	1
AGRICULTURAL WORKER	1
APPRENTICE WIREMAN	1
ARTIST	1
ASSISTANT TECHNICAL DIRECTOR	1
ASSOCIATE DIRECTOR, YOUTHHOME	1
ASST CHORAL DIRECTOR	1
AUTHORIZED SALES AGENT	1
AUTOMOTIVE MACHINIST	1
BANK COMPLIANCE OFFICER	1
BARTENDER	1
CARPENTER	1
CHIEF FINANCIAL OFFICER	1
CHILD ABUSE INVESTIGATOR, STATE OF WYO	1
CIVIL PROCESS SPECIALIST	1
CLINICAL CARE COORDINATOR FOR A HOSPICE	1
CLOSING SPECIALIST	1
COLLECTIONS REPRESENTATIVE AT BANK	1
CONDUCTOR ON RAILROAD	1
CONSTRUCTION LABORER	1
CONSTRUCTION SUPERINTENDENT	1
CONSULTANT	1
CONTRACT SERVICE ASSISTANT	1
CONTRACTOR	1
COSMETOLOGIST	1
COUNTY ASSESSOR	1

COURIER	1
CREW MEMBER	1
CURRICULUM FACILITATOR CLERK	1
DATA AND INFORMATION MANAGER	1
DEPUTY SHERIFF	1
DESIGNER	1
DIESEL MECHANIC	1
DIETARY SUPERVISOR	1
DIRECTOR OF HOMELESS SHELTER	1
DISPATCHER AND BOOKKEEPER	1
DRAG LINE OILIER	1
EDUCATION SPECIALIST	1
ELECTRICAL INSPECTOR	1
FIELD MECHANIC	1
FIELD SERVICE TECHNICIAN LEAD MAN	1
FINANCIAL ANALYST	1
FIRE FIGHTER	1
FISH AND WILDLIFE TECHNICIAN	1
GROUP HOME WORKER	1
HABILITATION	1
HARDWARE STORE	1
HBAC TECHNICIAN	1
HORSE SHOER	1
HOUSEPAINTER	1
HUMAN RESOURCES ASSISTANT	1
HUMAN RESOURCES SCHEDULER	1
HYDROLOGIST	1
INFORMATION SPECIALIST	1
INTERVIEWER FOR DRUGS AND ALCOHOL	1
JOURNEYMAN LINEMAN	1
LABORER	1
LAWN TECH	1
LIBRARY PAIGE	1
LITERARY AID AT THE KAYCEE ELEMENTARY	1
LPN	1
MACHINIST	1
MARKETING DIRECTOR	1
MARY KAY SALES	1
MEDICAL RECORDS CODER	1
MEDICAL TRANSCRIPTIONIST	1

MUSEUM REGISTRAR	1
NATURE CONSERVANCY	1
NURSE PRACTITIONER	1
OILIER FOREMAN	1
OPERATOR FOR CONOCO PIPELINE	1
OPTOMETRIC TECHNICIAN	1
PAINTING	1
PARAPROFESSIONAL	1
PERFORMANCE SUPERVISOR	1
PERSONAL BANKER	1
PHARMACY TECHNICIAN	1
PLANTER	1
PRE DELIVERY INSPECTOR	1
PRESIDENT OF COMPANY	1
PROGRAMMER ANALYST	1
ROOFER, SIDER AND GUTTER INSTALLER	1
SAFETY	1
SCHOOL COUNSELOR	1
SHIPPER AND RECEIVER	1
SHOP HAND	1
SIGN TECHNICIAN	1
SILO REPAIR	1
SOCIAL WORKER	1
SPEECH THERAPIST	1
STAFF DEVELOPMENT COORDINATOR	1
STUDENT SENATE PRESIDENT	1
SUPERVISOR OF WATER DEPT	1
SURGICAL TECHNICIAN	1
SURVEY TECHNICIAN	1
TECHNICAL ADVISER	1
TECHNICAL INTERN AT WYO THEATER	1
TECHNOLOGY FACILITATOR AT JUNIOR HIGH	1
TOOL ATTENDANT	1
TOP SUPERVISOR	1
TOURS	1
TRUCK DRIVER	1
VIDEO EXTREMES	1
VP OF SURVEYING/ENGINEERING FIRM	1
WAREHOUSE FILING	1
WARRANTY ADMINISTRATOR	1



SHERIDAN COLLEGE

On-the-Job Training Received at the Beginning of Employment

Training	Frequency
COMPUTER SKILLS AND PROGRAMS	16
GENERAL DUTIES, LEARNING	8
DEPARTMENT SPECIFIC TRAINING	5
OPERATE EQUIPMENT	4
ABOUT PRODUCTS AND CUSTOMERS	3
ACCOUNTING, BUDGETING, FORMATTING PROGRAMS	2
APPRENTICESHIP	2
PLUMBING AND ELECTRICAL	2
TELLER AND BOOKKEEPING	2
ALL ASPECTS OF RESTAURANT	1
BARRING NOMENCLATURE, HYDRAULIC HOSE ASSEMBLY	1
BY DISTRICT AS A READING SPECIALIST, EXTENSIVE OVER 1 YEAR	1
CHECKING AND RECEIVING; COMPUTER SIGNING	1
CNA, RESIDENT CARE	1
COMMERCIAL LOAN ASSISTANT	1
CPR AND FIRST AID	1
DOZER	1
DRAFTING DOCUMENTS, WHAT THEY ARE,WHAT THEY MEAN, HOW THEY WK	1
EDITING, MONITORING, SUPERVISING, ASSISTANT MANAGING	1
ENDOSCOPY	1
EQUIPMENT USE, DRIVING SKILLS, SAFETY, MAP READING	1
EVERYTHING FOR NURSES (6 WEEKS)	1
EVERYTHING SHE DOES (MEDICAL CODER)	1
EVERYTHING THAT IS INVOLVED IN CONSTRUCTING A HOUSE.	1
EVERYTHING, PARTS DEPT. CHECKS NEW CARS	1
EVERYTHING,ORIENTATION OF HOSPITAL,CLINICAL ORIENTATION	1
FOOD HANDLING AND SAFETY	1
FORKLIFT OPERATION, SEED PROCESSING	1
HELPING DOCTORS, SUPPLY USAGE, X-RAYS, STATE X-RAY TEST	1
LEARN TO FEED, HOW TO DO LIFT AT BUS, DINAVOX	1
LIGHTS,SOUND,RIGGING,CARPENTRY, FOR THEATER	1
MAINTENANCE SCHOOL, TECHNICAL SCHOOLS	1
PARTS SYSTEM, QUICK BOOKS, SALES TRAINING	1

PERSONAL SKILLS, ORGANIZING ACTIVITIES, PROBLEM SOLVING	1
PROCEDURAL TRAINING IN TELLER POSITION	1
SUPERVISORY SKILLS	1
TAKE CARE OF SHAKE MACHINE, SANITIZE, FRY STATION	1
TRANSCRIPTION AND CODING	1
TRUCKS AND FRONT END LOADERS	1
TUTORING PROGRAMS, INTERPERSONAL COMMUNICATIONS SKILLS	2
WATER SYSTEM OPERATIONS	1
WEB PAGE (IN-FORMAL)	1

## **APPENDIX B INSTRUMENTS**

SHERIDAN STUDENT FOLLOW-UP SURVEY 2002  
University of Wyoming Survey Research Center

1. Please enter your initials.

INIT 1:1-3

|\_\_|\_\_|\_\_|

2. TIME INTERVIEW STARTED.

ISTIME 1:4-8

|\_\_|\_\_|\_\_|\_\_|\_\_|

3. Hello! Is \_\_\_\_\_ there?

(If not, find out when a good time to call back would

be.

If yes, continue)

Center

emerging  
student

Hi, my name is \_\_\_\_\_ and I am calling from the Survey Research

at the University of Wyoming. We are conducting a study for the  
Whitney Foundation, which looks at the preparation of youth

from Sheridan County, Wyoming. As a former Sheridan County

you have been selected to participate in this important study.  
If you would agree I would like to take 5 minutes of your time

to ask you a few questions. Is this a good time?

(If yes, proceed with interview.

If no, when would be a GOOD TIME TO CALL BACK?)

INTRO1

4. Before we begin, let me assure you that confidentiality will be  
maintained and no comments will be attributed to any  
individuals.

I'd also like to thank you for your participation.

First, I'd like to ask some questions about yourself.

INTRO2

5. Our records indicate that you went to \_\_\_\_\_  
(Interviewer: Read school name from phone sheet).

Is that right?

(Interviewer: Check the right answer)

SDID 1:9

(CHECK ONLY ONE ANSWER)

- |\_\_| 1. 1. Big Horne or Tongue River  
|\_\_| 2. 2. Sheridan High  
|\_\_| 3. 3. Arvada Clearmont High  
|\_\_| 4. 4. Sheridan College  
|\_\_| 5. None of the above

IF (#5 = 1) GO TO #9

IF (#5 = 5) GO TO #6

SKIP TO QUESTION 10

=====

6. Did you attend a school in Sheridan county?

INQ 1:10

(CHECK ONLY ONE ANSWER)

- 1. Yes (GO TO QUESTION 8)
- 2. No (GO TO QUESTION 7)

7. I am sorry, but we are supposed to interview only people  
who attended school in Sheridan county.

EXPL

(END INTERVIEW)

8. Which school in Sheridan county did you attend?

OTHERS 1:11-50

=====

SKIP TO QUESTION 10

=====

9. SDID1. Which of these 2 schools did you attend?

SDID1 1:51

(CHECK ONLY ONE ANSWER)

- 1. Tongue River High School
- 2. Big Horn High
- 3. (No Answer)

10. 1. When did you last attend?

Q1 1:52

(CHECK ONLY ONE ANSWER)

- 1. 2000-2001
- 2. 1999-2000
- 3. 1998-1999
- 4. 1997-1998
- 5. 1996-1997
- 6. Other
- 7. (No answer)

11. 1A. Did you graduate?

Q1A 1:53

(CHECK ONLY ONE ANSWER)

- 1. Yes
- 2. No
- 3. (No answer)

12. Q1B. Do you currently live in the Sheridan area?

Q1B 1:54

(CHECK ONLY ONE ANSWER)

- 1. Yes (GO TO QUESTION 17)
- 2. No
- 3. (No Answer)

13. Q1C. WHERE DO YOU CURRENTLY LIVE?

WHAT CITY?

(ENTER "NA" FOR "NO ANSWER")

Q1C 2:1-40

---

14. 1D. And what state?

(Type in name of state or foreign country)

NO ABBREVIATIONS. Enter "NA" for "No Answer")

Q1D 2:41-60

---

15. 1E. Why did you move away from the Sheridan area?

(INTERVIEWER PLEASE READ RESPONSES.)

Q1E 2:61

(CHECK ONLY ONE ANSWER)

- 1. Went away to college
- 2. To find employment
- 3. In hope of better opportunities elsewhere
- 4. Other Reason (GO TO QUESTION 16)
- 5. (No Answer)

SKIP TO QUESTION 17

---

=====

16. 1E1. What other reason?

(ENTER "NA" FOR "NO ANSWER")

Q1E1 3:1-40

---

---

LOWEST VALUE = "0"

17. 2. Now, think back to when you left school. What were your plans?

(INTERVIEWER PLEASE READ RESPONSES.)

Q2 3:41

(CHECK ONLY ONE ANSWER)

- 1. Attend a 4-year college
- 2. Attend a 2-year college
- 3. Technical/Vocational school
- 4. Military
- 5. Work
- 6. Didn't really know (GO TO QUESTION 22)
- 7. Other (GO TO QUESTION 18)
- 8. (No answer)

SKIP TO QUESTION 19

=====

18. 2A. WHAT WAS THAT?

Q2A 4:1-80

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---

---

19. 3. And is that what you did?

Q3 5:1

(CHECK ONLY ONE ANSWER)

- 1. Yes
- 2. No (GO TO QUESTION 20)
- 3. (No answer)

SKIP TO QUESTION 22

=====

20. 3A. Why not? (CHECK ALL THAT APPLY!)  
(INTERVIEWER PLEASE READ RESPONSES.)

Q3A 5:2-8

(CHECK ALL THAT APPLY)

- 1. Couldn't get into the school I wanted
- 2. Could not afford to go where I wanted
- 3. Was not qualified for the jobs I wanted
- 4. Jobs I wanted were not available
- 5. Personal/Family reasons
- 6. Other
- 7. (No answer)

IF (#20 @ 6) GO TO #21

SKIP TO QUESTION 22

=====

21. 3A1. Why was that?

Q3A1 5:9-68

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---

---

22. 5. What are you doing right now?  
(INTERVIEWER PLEASE READ RESPONSES.)  
(CHECK ALL THAT APPLY!)  
(CHECK ALL THAT APPLY)

Q5 5:69-74

- 1. Working
- 2. Going to School
- 3. In the Military
- 4. Full-Time Homemaker
- 5. Not Working and not going to school
- 6. (No answer)

23. 6. Is this different from, or the same as, what you did right  
after  
you left school?

Q6 5:75

(CHECK ONLY ONE ANSWER)

- 1. Same
- 2. Different (GO TO QUESTION 24)
- 3. (No answer)

SKIP TO QUESTION 32

---

24. 6A. What did you do right after you left school?  
(INTERVIEWER PLEASE READ RESPONSES.)

Q6A 5:76

(CHECK ONLY ONE ANSWER)

- 1. Worked (GO TO QUESTION 28)
- 2. Went to School (GO TO QUESTION 26)
- 3. Military (GO TO QUESTION 28)
- 4. Full-Time Homemaker (GO TO QUESTION 28)
- 5. Not Working
- 6. Other (GO TO QUESTION 25)
- 7. (No answer)

SKIP TO QUESTION 32

---

25. 6A1. What was that?

Q6A1 6:1-60

---

---

---

SKIP TO QUESTION 28

---

---

26. 6B. Did you graduate or finish school?

Q6B 6:61

(CHECK ONLY ONE ANSWER)

- 1. Yes
- 2. No (GO TO QUESTION 27)
- 3. (No answer)

SKIP TO QUESTION 28

---

---

27. 6B1. Why not?

Q6B1 7:1-60

---

---

28. 6C. How well did your education in Sheridan prepare you to do  
what you did  
right after high school?  
(INTERVIEWER PLEASE READ RESPONSES.)

Q6C 7:61

(CHECK ONLY ONE ANSWER)

- 1. Very Well Prepared
- 2. Well Prepared
- 3. Somewhat Prepared
- 4. Poorly Prepared (GO TO QUESTION 29)
- 5. Not at All Prepared (GO TO QUESTION 29)
- 6. (No answer)

SKIP TO QUESTION 32

---

---

29. 6D1. Specifically, tell me the top three things that you felt  
you were  
NOT PREPARED to do?  
FIRST of top three things.  
(Enter "NA" for "No Answer")

Q6D1 8:1-60

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---

30. 6D2. SECOND of top three things not prepared to do.  
(Enter "NA" for "No Answer")

Q6D2 9:1-60

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31. 6D3. THIRD of top three things not prepared to do.  
(Enter "NA" for "No Answer")

Q6D3 10:1-60

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---

---

32. 7. In general, were there any educational or vocational opportunities  
Sheridan  
County that you would like to have had while attending school in  
County that you did not get?

Q7 10:61

(CHECK ONLY ONE ANSWER)

- |  |                            |
|--|----------------------------|
|  | 1. Yes (GO TO QUESTION 33) |
|  | 2. No                      |
|  | 3. (No answer)             |

SKIP TO QUESTION 34

=====

33. 7A. What were these things?

Q7A 11:1-60

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34. 8. In general, were there skills or abilities that you needed  
for  
while  
at school in Sheridan?

Q8 11:61

(CHECK ONLY ONE ANSWER)

- |\_\_| 1. Yes  
|\_\_| 2. No  
|\_\_| 3. (No answer)

IF (#34 = 1) GO TO #35  
IF (#22 @ 1) GO TO #36  
IF (#22 @ 2) GO TO #43  
IF (#22 @ 5) GO TO #45

SKIP TO QUESTION 49

=====

35. 8A. And what were those?

Q8A 12:1-80

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IF (#22 @ 1) GO TO #36  
IF (#22 @ 2) GO TO #43  
IF (#22 @ 5) GO TO #45

SKIP TO QUESTION 49

=====

36. 9. In an earlier question you indicated that you are currently working.

Can you tell me your job title?

Q9 13:1-40

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37. 9A. Can you tell me your primary job responsibilities?

Q9A 14:1-60

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38. 10. Is your job directly, somewhat or not at all related to the classes you took while attending school in Sheridan?

Q10 14:61

(CHECK ONLY ONE ANSWER)

- |\_\_| 1. Directly

- |\_\_| 2. Somewhat  
|\_\_| 3. Not at all  
|\_\_| 4. (No answer)

39. 11. How well did the education and/or training you received at Sheridan County schools prepare you for your current job?  
(READ RESPONSE CHOICES)

Q11 14:62

(CHECK ONLY ONE ANSWER)

- |\_\_| 1. Very Well Prepared  
|\_\_| 2. Well Prepared  
|\_\_| 3. Somewhat Prepared  
|\_\_| 4. Poorly Prepared (GO TO QUESTION 40)  
|\_\_| 5. Very Poorly Prepared (GO TO QUESTION 40)  
|\_\_| 6. Not applicable  
|\_\_| 7. (No answer)

SKIP TO QUESTION 41

=====

40. 11A. Specifically, what were you NOT PREPARED to do?

Q11A 15:1-80

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41. 12. An important part of the survey involves talking to employers of former Sheridan county students, to get their point of view. Would it be O.K. with you if we contacted your place of employment to ask them a few questions about your skills and abilities when you first started work for them?

Q12 16:1

(CHECK ONLY ONE ANSWER)

- |\_\_| 1. No  
|\_\_| 2. Yes (GO TO QUESTION 42)

SKIP TO QUESTION 49

=====

42. 12A. Who would be the person who is most knowledgeable about your skills and abilities? I'll need your supervisor's name and phone number.

(INTERVIEWER: READ BACK AND SPELL NAME, READ AREA CODE  
AND  
NUMBER TO VERIFY  
WRITE ALL THAT ON PHONE SHEET TOO)  
Q12A 16:2-61

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IF (#22 @ 2) GO TO #43

SKIP TO QUESTION 49

---

43. 13. In an earlier question you indicated that you are currently  
in school.

How prepared do you feel to succeed in school?  
(READ RESPONSE CHOICES)

Q13 16:62

(CHECK ONLY ONE ANSWER)

- 1. Very Well Prepared
- 2. Well Prepared
- 3. Somewhat Prepared
- 4. Poorly Prepared (GO TO QUESTION 44)
- 5. Very Poorly Prepared (GO TO QUESTION 44)
- 6. (No answer)

IF (#22 @ 5) GO TO #45

SKIP TO QUESTION 49

---

44. 13A. Specifically, what do you NOT FEEL PREPARED for?

Q13A 17:1-60

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---

---

IF (#22 @ 5) GO TO #45

SKIP TO QUESTION 49

---

45. 14. In an earlier question you indicated that you are not  
currently

employment working or going to school. Are you currently seeking  
or considering going back to school?

Q14 17:61

(CHECK ONLY ONE ANSWER)

- 1. Yes (GO TO QUESTION 46)
- 2. No
- 3. (Don't know)

SKIP TO QUESTION 49

=====

46. 15A. Please tell me the top three challenges you face as you  
look for employment or consider going back to school?  
FIRST top challenge.

Q15A 18:1-60

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47. 15B. SECOND top challenge.

Q15B 19:1-60

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48. 15C. THIRD top challenge.

Q15C 20:1-60

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49. That's all the questions I have for you. Thank you again for  
speaking participating in this important study. It was a pleasure  
with you. Good bye.

ENDSURV

(Press enter to continue)

50. Respondent's gender?

GENDER 20:61

(CHECK ONLY ONE ANSWER)

- |  |               |
|--|---------------|
|  | 1. Male       |
|  | 2. Female     |
|  | 3. Can't tell |

51. Please enter the ID NUMBER FROM PHONE SHEET.

IDNUM 20:62-65

|\_\_|\_\_|\_\_|\_\_|

52. Please enter the area code from phone sheet.

AREA 20:66-68

|\_\_|\_\_|\_\_|

53. YOU MAY NOW REVIEW, SAVE OR ERASE YOUR ANSWERS.

FINISH 20:69

(CHECK ONLY ONE ANSWER)

- |  |                               |
|--|-------------------------------|
|  | 1. Review (GO TO QUESTION 10) |
|  | 2. Save (GO TO QUESTION 55)   |
|  | 3. Erase                      |

54. ARE YOU SURE YOU WANT TO ERASE YOUR ANSWERS?

MAKESURE 20:70

(CHECK ONLY ONE ANSWER)

- |  |                           |
|--|---------------------------|
|  | 1. Yes                    |
|  | 2. No (GO TO QUESTION 53) |

55. TIME INTERVIEW ENDED.

ENDTIME 20:71-75

|\_\_|\_\_|\_\_|\_\_|\_\_|

SHERIDAN COUNTY EMPLOYER SURVEY 2002  
University of Wyoming Survey Research Center

1. Please enter your initials.

INIT 1:1-3

|\_\_|\_\_|\_\_|

2. TIME INTERVIEW STARTED.

ISTIME 1:4-8

|\_\_|\_\_|\_\_|\_\_|\_\_|

3. Hello! Is \_\_\_\_\_ there?

INTRO1 1:9

(CHECK ONLY ONE ANSWER)

|\_\_| 1. Yes (GO TO QUESTION 4)

|\_\_| 2. No (GO TO QUESTION 5)

4. Hi, my name is (YOUR NAME) and I'm calling from the Survey  
Research Center  
at the University of Wyoming. We are conducting a follow-up on  
students  
who went to school in Sheridan County, Wyoming.  
The purpose of this study is to find out how the schools in  
Sheridan  
County might improve their curriculum so as to better prepare  
students  
for future employment.  
As an employer of (STUDENT NAME), a former Sheridan County  
student,  
you have been selected to participate in this important study.  
(NAME  
OF STUDENT) has given us permission to contact you. Could I  
take five  
minutes of your time to ask you a few questions? Is this a good  
time?

INTRO2 1:10

(CHECK ONLY ONE ANSWER)

|\_\_| 1. Yes (GO TO QUESTION 6)

|\_\_| 2. No (GO TO QUESTION 5)

5. When would be a good time to call back? (INTERVIEWER RECORD  
TIME ON  
PHONE SHEET.) Thank you.

CALLBACK

(End Interview)

=====

6. Before we begin, let me assure you that confidentiality will be maintained and no comments will be attributed to any individuals.

Your comments regarding (NAME OF STUDENT) will be kept strictly confidential. I'd also like to thank you for your participation.

O.K. now let's begin.

INTRO3

7. 1. What is the exact job title of (NAME OF STUDENT)?

Q1 1:11-70

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8. 2. Please list his/her main duties:

Q2 2:1-80

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9. 3. Which BEST describes your workplace relationship with the graduate?

(INTERVIEWER PLEASE READ RESPONSES).

Q3 3:1

(CHECK ONLY ONE ANSWER)

- 1. Immediate supervisor
- 2. Employer/Owner
- 3. Personnel/Human Resource Manager
- 4. Co-Worker
- 5. Other (GO TO QUESTION 10)
- 6. (No answer)

SKIP TO QUESTION 11

=====

10. 3A. Please describe: \_\_\_\_\_

Q3A 3:2-61

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---

---

11. 4. How long has the graduate been employed by your firm or organization?

Q4 3:62

(CHECK ONLY ONE ANSWER)

- 1. Less than 1 year
- 2. Between 1 and 2 years

- 3. Between 2 and 3 years
- 4. Between 3 and 4 years
- 5. More than 4 years
- 6. (Don't know)
- 7. (No answer)

12. 5. Overall, how would you rate (STUDENT NAME) as an employee?  
(INTERVIEWER PLEASE READ RESPONSES.)

Q5 3:63

(CHECK ONLY ONE ANSWER)

- 1. Excellent
- 2. Good
- 3. Fair
- 4. Poor
- 5. Very Poor
- 6. (Don't know)
- 7. (No answer)

13. 6. Think back when this person began working for you. Please indicate  
when he/she  
your level of satisfaction with the graduate's job skills  
BEGAN working for you. Were you...  
(INETERVIEWER PLEASE READ RESPONSES.)

Q6 3:64

(CHECK ONLY ONE ANSWER)

- 1. Very satisfied
- 2. Satisfied
- 3. Mixed (GO TO QUESTION 14)
- 4. Dissatisfied (GO TO QUESTION 14)
- 5. Very Dissatisfied (GO TO QUESTION 14)
- 6. (Don't know)
- 7. (No answer)

SKIP TO QUESTION 15

=====

14. 6A. Which specific skills were you not satisfied with?  
Q6A 4:1-80

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---

15. 7. I am now going to list various job skills and qualities  
that are  
me the  
he/she BEGAN  
characteristic of a good employee. I would like you to tell  
the extent to which this person possessed these skills when

were working for you. For each skill, tell me if his/her skills excellent, above average, below average, or poor.

Q7

16. 7A. How were his/her interpersonal skills?  
(READ RESPONSE CHOICES)

Q7A 5:1

(CHECK ONLY ONE ANSWER)

- 1. Excellent
- 2. Above average
- 3. Average
- 4. Below average
- 5. Poor
- 6. Uncertain/Don't know
- 7. (Does not apply)

17. 7B. How were his/her writing skills?  
(PROMPT WITH RESPONSE CHOICES IF NECESSARY)

Q7B 5:2

(CHECK ONLY ONE ANSWER)

- 1. Excellent
- 2. Above average
- 3. Average
- 4. Below average
- 5. Poor
- 6. Uncertain/Don't know
- 7. (Does not apply)

18. 7C. Math skills? Remember we are still talking  
about the time (NAME OF GRADUATE) BEGAN working for you.

Q7C 5:3

(CHECK ONLY ONE ANSWER)

- 1. Excellent
- 2. Above average
- 3. Average
- 4. Below average
- 5. Poor
- 6. Uncertain/Don't know
- 7. (Does not apply)

19. 7D. Computer skills?

Q7D 5:4

(CHECK ONLY ONE ANSWER)

- 1. Excellent
- 2. Above average
- 3. Average
- 4. Below average
- 5. Poor

6. Uncertain/Don't know  
 7. (Does not apply)

20. 7E. Analytical/reasoning skills?

Q7E 5:5

(CHECK ONLY ONE ANSWER)

1. Excellent  
 2. Above average  
 3. Average  
 4. Below average  
 5. Poor  
 6. Uncertain/Don't know  
 7. (Does not apply)

21. 7F. Organizational skills? Remember we are still talking about the time (NAME OF GRADUATE) BEGAN working for you.

Q7F 5:6

(CHECK ONLY ONE ANSWER)

1. Excellent  
 2. Above average  
 3. Average  
 4. Below average  
 5. Poor  
 6. Uncertain/Don't know  
 7. (Does not apply)

22. 7G. Self-directed/takes initiative?

Q7G 5:7

(CHECK ONLY ONE ANSWER)

1. Excellent  
 2. Above average  
 3. Average  
 4. Below average  
 5. Poor  
 6. Uncertain/Don't know  
 7. (Does not apply)

23. 7H. Managerial and leadership?

Q7H 5:8

(CHECK ONLY ONE ANSWER)

1. Excellent  
 2. Above average  
 3. Average  
 4. Below average  
 5. Poor  
 6. Uncertain/Don't know  
 7. (Does not apply)

24. 7I. Customer service?

Q7I 5:9

(CHECK ONLY ONE ANSWER)

- 1. Excellent
- 2. Above average
- 3. Average
- 4. Below average
- 5. Poor
- 6. Uncertain/Don't know
- 7. (Does not apply)

25. 7J. Ability to problem solve?

Q7J 5:10

(CHECK ONLY ONE ANSWER)

- 1. Excellent
- 2. Above average
- 3. Average
- 4. Below average
- 5. Poor
- 6. Uncertain/Don't know
- 7. (Does not apply)

26. 7K. Work ethic and enthusiasm for job?

Q7K 5:11

(CHECK ONLY ONE ANSWER)

- 1. Excellent
- 2. Above average
- 3. Average
- 4. Below average
- 5. Poor
- 6. Uncertain/Don't know
- 7. (Does not apply)

27. 7L. Professionalism?

Q7L 5:12

(CHECK ONLY ONE ANSWER)

- 1. Excellent
- 2. Above average
- 3. Average
- 4. Below average
- 5. Poor
- 6. Uncertain/Don't know
- 7. (Does not apply)

28. 7M. Attendance/Punctuality?

Q7M 5:13

(CHECK ONLY ONE ANSWER)

- 1. Excellent

- 2. Above average
- 3. Average
- 4. Below average
- 5. Poor
- 6. Uncertain/Don't know
- 7. (Does not apply)

29. 7N. And overall job performance? Remember we are still talking about the time (NAME OF GRADUATE) BEGAN working for you.

Q7N 5:14

(CHECK ONLY ONE ANSWER)

- 1. Excellent
- 2. Above average
- 3. Average
- 4. Below average
- 5. Poor
- 6. Uncertain/Don't know
- 7. (Does not apply)

30. 8. Did the graduate require any on-the-job training?

Q8 5:15

(CHECK ONLY ONE ANSWER)

- 1. Yes (GO TO QUESTION 31)
- 2. No
- 3. (Don't know)
- 4. (No answer)

SKIP TO QUESTION 32

=====

31. 8A. What did he/she train on?

Q8A 5:16-75

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32. That's all the questions I have for you. Thank you again for participating  
in this important study. It was a pleasure speaking with you.  
Good bye.

ENDSURV

33. Respondent's gender?

GENDER 5:76

(CHECK ONLY ONE ANSWER)

- 1. Male
- 2. Female
- 3. Can't tell

34. Please enter the SDID# from phone sheet.

SDID 5:77

|\_\_|

35. Please enter the ID# from phone sheet.

IDCODE 6:1-4

|\_\_|\_\_|\_\_|\_\_|

36. Please enter the area code.

AREA 6:5-7

|\_\_|\_\_|\_\_|

37. YOU MAY NOW REVIEW, SAVE OR ERASE YOUR ANSWERS.

FINISH 6:8

(CHECK ONLY ONE ANSWER)

- |\_\_| 1. Review (GO TO QUESTION 7)
- |\_\_| 2. Save (GO TO QUESTION 39)
- |\_\_| 3. Erase

38. ARE YOU SURE YOU WANT TO ERASE YOUR ANSWERS?

MAKESURE 6:9

(CHECK ONLY ONE ANSWER)

- |\_\_| 1. Yes
- |\_\_| 2. No (GO TO QUESTION 37)

39. TIME INTERVIEW ENDED.

ENDTIME 6:10-14

|\_\_|\_\_|\_\_|\_\_|\_\_|

**Whitney Community Members Interview: Telephone Script**

Hello! Is \_\_\_\_\_ there? (**If not, find out when a good time to call would be. If yes, continue)**

Good morning/evening/afternoon, my name is \_\_\_\_\_ and I am calling from PRES Incorporated. We are conducting an educational needs assessment on behalf of the Whitney Foundation. The purpose of this study is to obtain information on how prepared Sheridan County students are to go forth and succeed in their post school endeavors. Another purpose of the study is to identify what may be needed in the community to enhance the preparation of students and expand the opportunities available to them.

*You have been nominated as an individual who could provide us with valuable information on this important topic. If you are willing, I would like to conduct a short telephone interview with you, it shouldn't take more than 15 minutes or so. Is this a good time?*



PROCEED WITH INTERVIEW OR SCHEDULE AN APPOINTMENT

NO...RESPONDENT IS NOT AVAILABLE



When would be a good time to call back?

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### **Community Interview Protocol**

*Before we begin, let me assure you that confidentiality will be maintained and no comments will be attributed to any individuals. First, I'd like to ask just a few background questions.*

1. How long have you lived in Sheridan County? \_\_\_\_\_
2. Did you attend school in Sheridan? Yes (ask 2b & 2c) \_\_\_\_\_ No (skip to #3)  
2b) Which school(s) did you attend? (Circle all that apply secondary & postsecondary)  

Big Horn High	Tongue River High
Sheridan High	Ft. Mackenzie High
Arvada-Clearmont High	Sheridan College

- 2c) How long has it been since you were last at this school(s)?

\_\_\_\_\_ Within past five years (Fill out Section D) \_\_\_\_\_ Over five years back

3. Have you had any children that have attended secondary or postsecondary schools in Sheridan County? \_\_\_\_\_ Yes (ask 3b & 3c) \_\_\_\_\_ No (go to #4)

- 3b) Which school(s) did your child(ren) attend? (Circle all that apply secondary & postsecondary)  

Big Horn High	Tongue River High
Sheridan High	Ft. Mackenzie High
Arvada-Clearmont High	Sheridan College

- 3c) Are they still in school? \_\_\_\_\_ Yes (Fill out Section C) \_\_\_\_\_ No (if no, ask 3d)

- 3d) How long has it been since they last attended this school(s)?

\_\_\_\_\_ Within past five years (Fill out Section C) \_\_\_\_\_ Over five years back

4. Have you ever hired or worked with students or graduates from a local high school or from Sheridan College?

\_\_\_\_\_ Yes (Fill out Section B) \_\_\_\_\_ No \_\_\_\_\_

5. Are you currently employed? \_\_\_\_\_ Yes (ask #5b) \_\_\_\_\_ No

5b) What is your occupation? \_\_\_\_\_

----- SECTION A (FOR EVERYONE) -----

*Now, I'm going to ask you some more general questions that we would like your perspectives on ....*

1. How prepared are Sheridan County students to go forth and succeed once they leave school? (*GIVE EXAMPLE OF "college, employment, etc." IF NECESSARY*).

***ADDITIONAL PROBES AS NECESSARY:***

- a. Are students prepared to do well in higher education?
  - b. Do you think they are competitive and prepared to work after they leave school?
  - c. Do you think they are able to get the jobs they want? Why or why not?
- 
2. Do you think preparation levels vary across different *types* of students?  
( IF RESPONDENT IS UNCLEAR GIVE EXAMPLES: college bound vs. vocational students, at-risk students, economically disadvantaged, and so forth)
  
  
  
  3. What are the strengths of our students in terms of skills and competencies with which they are leaving our schools?
  
  
  
  4. How about their weaknesses? In other words, what do our students need to improve upon?
  
  
  
  5. What, if anything, needs to be done in Sheridan County to help increase the preparedness of our youth and enhance the choices available to them once they leave school? In other words, what do we need more of?

**-----SECTION B (IF HIRED/WORKED WITH ONLY) -----**

*In an earlier question you indicated that you had hired or worked with students or graduates from a local high school or from Sheridan College. I'd like to ask you a little more about this.*

1. Where did the former students you worked with go to school?

Big Horn High	Tongue River High
Sheridan High	Ft. Mackenzie High
Arvada-Clearmont High	Sheridan College

2. What were your experiences with them?

***ADDITIONAL PROBES AS NECESSARY:***

- a. How prepared were these students?
- b. What were their specific areas of strengths and weaknesses?
- c. If they had experiences with students from different Sheridan County Schools, did they notice that levels of preparation varied depending on where the student had gone to school?

**-----SECTION C (CHILDREN ATTENDED SCHOOL) -----**

*In an earlier question you indicated that you had children who have attended school in Sheridan County. I'd like to ask you a little more about this.*

***IF KIDS CURRENTLY IN SCHOOL ASK THE FOLLOWING:***

1. Do you feel like your child is being well-prepared to succeed in their post school endeavors?
2. Is there anything you want your child provided with that they are not currently getting?

**FOLLOW-UP PROBE:** Are there any programs or trainings that you wish *were* available to your student(s) either via the schools or within the broader community?

3. Has your child taken any vocational offerings while at school?

**FOLLOW-UP PROBE:** What do you think of these? (PROBE FOR PERCEPTIONS OF VOC PROGRAMS).

4. Has your child received any career guidance and counseling services?

**FOLLOW-UP PROBE:** a) If yes, how useful have these services been?  
b) If not, why haven't they had such services? (chose not to, lack of awareness, and so forth)

***IF KIDS GRADUATED/LEFT SCHOOL ASK THE FOLLOWING:***

- 1. You indicated that your child(ren) has been out of school for less than five years. Did your child(ren) graduate?**
2. Where did your child go and what did they do after leaving school?
3. Was that what they had wanted?

**ADDITIONAL PROBE AS NECESSARY**

- Did their child know what they wanted? Did the school help give guidance in this area?

4. How prepared were they to succeed at this (e.g., college, work, whatever they did after leaving school)?

5. Was there anything that the schools could have done to better prepare your child for their post school endeavors?

**-----SECTION D (THEY HAD ATTENDED SCHOOL) -----**

*In an earlier question you indicated that you had attended school in Sheridan County within the past five years. I'd like to ask you a little more about this.*

1. Did you have the options and opportunities you wanted available to you after leaving school? Why or why not?
2. Did you feel well-prepared to succeed in your post school endeavors? Why or why not?
3. Did you leave Sheridan County at any point after leaving school?

Follow-up probes: Where did they go and why?  
Why did you return to Sheridan and when?

----- CLOSING COMMENTS (EVERYONE) -----

*Well, that's it! Thank you so much for your time and input! Are there any other final comments you'd like to make?*

*Thank you again for participating in this important study. It was a pleasure speaking with you. Good bye.*

## **APPENDIX C**

## **WYCTA RUBRICS**

### ***APPLIED COMMUNICATION***

<b>STRAND</b>		<b>RATING</b>			
	<b>BENCH-MARK</b>	<b>4 (Advanced)</b>	<b>3 (Proficient)</b>	<b>2 (Partially Proficient)</b>	<b>1 (Novice)</b>
<b>Listening</b>	Understands and applies directions and information	Executes a prescribed task quickly and efficiently Evaluates the verbal information and/or directions for accuracy Integrates information using prior knowledge Applies information to diverse tasks	Executes a prescribed task completely and accurately Asks clarifying questions. Requires occasional repetition Adjusts task performance based on the verbal information	Executes a task, but not always completely and/or accurately Asks inappropriate questions Requires frequent repetition	Requires constant repetition to execute task Follows verbal directions inaccurately
	expresses ideas or information	Uses interesting and precise vocabulary Presents a well-organized argument and supports the idea with compelling evidence Always uses appropriate gesture, tone, and body language Suggests applications not contained in original source	Uses effective vocabulary Communicates accurately and clearly Regularly uses appropriate gesture, tone, and body language Organizes ideas in proper sequence	Uses basic vocabulary Communicates clearly and accurately <i>or</i> in proper sequence Occasionally uses appropriate gesture, tone, and body language	Uses vague vocabulary or slang Communicates meaning other than what was intended
<b>Reading</b>	Constructs meaning from text	Extracts and synthesizes information from a variety of text forms Evaluates the significance and accuracy of text Considers alternatives to apparent or literal meaning of text	Organizes information accurately from both technical and non-technical text sources Analyzes text for significance and biases Applies information gained to a variety of tasks and situations	Accurately paraphrases information from text sources Generalizes information	Repeats information from basic text sources Generalizes information with assistance
<b>Writing</b>	Writes to convey information or express ideas	Uses interesting and precise vocabulary Uses all language conventions correctly Powerfully conveys idea through exemplary organization and compelling evidence	Uses standard language conventions Uses effective vocabulary and organization to support idea or argument with appropriate evidence Structures the composition for subject, purpose, and audience	Uses most language conventions Conveys ideas or information clearly Attempts to support with information, but not appropriately or accurately	Uses some language conventions Partially conveys ideas

## APPLIED MATHEMATICS

STRAND	BENCH-MARK	RATING			
		4 (Advanced)	3 (Proficient)	2 (Partially Proficient)	1 (Novice)
<b>Basic operations</b>	Applies the four basic operations involving whole numbers, fractions, decimals and percents	<ul style="list-style-type: none"> <li>Performs calculations requiring more than two steps and checks for reasonableness of results</li> <li>Independently completes calculations with a high degree of precision</li> <li>Independently transfers mathematics to solve novel or generalized problems</li> </ul>	<ul style="list-style-type: none"> <li>Performs calculations requiring two steps in multiple and varied settings</li> <li>Consistently and accurately completes calculations appropriate to the task or project</li> </ul>	<ul style="list-style-type: none"> <li>Performs single-step calculations in an applied setting, with occasional errors in computation</li> <li>Requires a calculator to achieve accuracy appropriate to the task in some situations</li> </ul>	<ul style="list-style-type: none"> <li>Performs single-step calculations in an applied setting with frequent errors in computation</li> <li>Does not know which operation is most appropriate to some problems</li> <li>Requires a calculator to compute with accuracy</li> </ul>
<b>Measurement</b>	Applies measurement tools and skills appropriate to a given situation	<ul style="list-style-type: none"> <li>Converts between metric and standard units</li> <li>Applies measurement skills in creative design and novel problem solving situations</li> <li>Appropriately manipulates mathematical formulas (e.g., using density and volume to find mass).</li> </ul>	<ul style="list-style-type: none"> <li>Selects the correct measurement, standard, tool, and strategy for a given task</li> <li>Measures accurately within tolerance necessary for a given task</li> <li>Accurately finds length, angle, weight, time, temperature, and determines area, volume and quantity</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates working knowledge of the relationship between the standard and metric systems</li> <li>Finds length, angle, weight, time, temperature, and determines area, volume and quantity, but not always accurately</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrates incomplete understanding of the relationship between the standard and metric systems</li> <li>Finds length, angle, weight, time, temperature, but cannot determine area, volume and quantity with accuracy</li> </ul>
<b>Data Representation</b>	Applies data to facilitate and support decision making	<ul style="list-style-type: none"> <li>Interprets graphs, charts, and tables of data to gain information needed to complete a task</li> <li>Analyzes numerical and graphical data to make accurate decisions based on inferences drawn from the data</li> </ul>	<ul style="list-style-type: none"> <li>Reads graphs, charts, and tables of data to gain information needed to complete a task</li> <li>Creates graphs, charts and tables to accurately represent data</li> <li>Assembles, classifies, and tabulates numerical data accurately</li> </ul>	<ul style="list-style-type: none"> <li>Reads bar graphs to gain information needed to complete a task</li> <li>Creates graphs, charts, and tables, but misrepresents some data</li> </ul>	<ul style="list-style-type: none"> <li>Reads graphs, charts, and tables of data to gain literal information</li> </ul>
<b>Advanced Math</b>	Employs algebraic and geometric reasoning in applied settings	<ul style="list-style-type: none"> <li>Sets up and solves multi-step, algebraic, real-world problems containing several unknowns and distractors</li> <li>Applies geometric reasoning to design creative solutions to problems</li> <li>Uses symbolic reasoning to program unique solutions to complex problems</li> </ul>	<ul style="list-style-type: none"> <li>Understands algebraic rules to set up and solve two-step word problems containing at least two unknowns and a distracter</li> <li>Applies geometric reasoning to solve work-related problems</li> </ul>	<ul style="list-style-type: none"> <li>Solves word problems containing one unknown</li> <li>Solves work-related geometric problems with occasional logic or computational errors</li> </ul>	<ul style="list-style-type: none"> <li>Attempts to solve work related algebra problems with frequent errors</li> </ul>

## AFFECTIVE AND THINKING SKILLS

STRAND	BENCH-MARK	RATING			
		4 (Advanced)	3 (Proficient)	2 (Partially Proficient)	1 (Novice)
Cooperation/ Interpersonal skills	Demonstrates cooperative and interpersonal skills in groups	<ul style="list-style-type: none"> <li>Often organizes and directs group tasks</li> <li>Often resolves conflicts between group members objectively</li> <li>Consistently acknowledges contributions by group members</li> </ul>	<ul style="list-style-type: none"> <li>Consistently and actively contributes to the group effort</li> <li>Works cooperatively at all times</li> <li>Often assists others in completing tasks</li> </ul>	<ul style="list-style-type: none"> <li>Contributes to group efforts occasionally</li> <li>Works cooperatively occasionally</li> </ul>	<ul style="list-style-type: none"> <li><b>Creates conflict within groups</b></li> <li><b>Isolates self from group efforts</b></li> </ul>
Problem solving	Uses problem solving skills in applied settings	<ul style="list-style-type: none"> <li>Applies information and logic to various life and job-related problems</li> <li>Identifies creative methods for overcoming obstacles</li> <li>Assesses each alternative fully, based on the criteria, and compares and contrasts alternatives based on results</li> </ul>	<ul style="list-style-type: none"> <li>Identifies obstacles to solving the problem</li> <li>Selects a viable solution with little trial-and-error</li> <li>Clearly identifies alternatives appropriate to the task and relevant to the decision</li> </ul>	<ul style="list-style-type: none"> <li>Selects a solution for a given problem using trial-and-error</li> <li>Identifies criteria needed to solve a problem</li> </ul>	<ul style="list-style-type: none"> <li><b>Recognizes a problem</b></li> <li><b>Relies on assistance in solving problems</b></li> </ul>
Work ethic	Exhibits proper work ethic in a variety of contexts	<ul style="list-style-type: none"> <li>Identifies necessary unassigned tasks and volunteers to complete them</li> <li>Works beyond expectations</li> <li>Works to achieve excellence on all tasks completed (assigned or unassigned)</li> </ul>	<ul style="list-style-type: none"> <li>Completes all assigned tasks on time</li> <li>Works to meet expectations</li> <li>Works to do a task well at all times</li> </ul>	<ul style="list-style-type: none"> <li>Completes task with assistance</li> <li>Oftentimes requires redirection</li> </ul>	<ul style="list-style-type: none"> <li><b>Fails to complete tasks</b></li> <li><b>Requires constant supervision</b></li> </ul>
Thinking	Uses critical thinking skills in routine and novel situations	<ul style="list-style-type: none"> <li>Evaluates information for its consequences</li> <li>Integrates information from diverse sources for application to new, multiple, and appropriate situations</li> <li>Thinks outside the obvious</li> </ul>	<ul style="list-style-type: none"> <li>Integrates information from several sources for application to a new situation</li> <li>Distinguishes relevant from irrelevant information</li> <li>Monitors for errors &amp; self-corrects without assistance</li> </ul>	<ul style="list-style-type: none"> <li>Identifies errors in information, but cannot explain why they are errors</li> <li>Self-corrects with direction</li> </ul>	<ul style="list-style-type: none"> <li><b>Does not distinguish between relevant and irrelevant information</b></li> </ul>

### **TECHNOLOGY RUBRIC**

<b>STRAND</b>	<b>BENCH-MARK</b>	<b>RATING</b>			
		<b>4 (Advanced)</b>	<b>3 (Proficient)</b>	<b>2 (Partially Proficient)</b>	<b>1 (Novice)</b>
<b>Operating Systems</b>	Identifies and operates an operating system	<ul style="list-style-type: none"> <li>Installs, troubleshoots, and monitors functioning of operating system</li> <li>Customizes facets of the operating system (e.g., desktop) to optimize performance</li> </ul>	<ul style="list-style-type: none"> <li>Uses operating system(s) needed for a variety of software applications</li> </ul>	<ul style="list-style-type: none"> <li>Able to articulate the necessity for an operating system</li> </ul>	<ul style="list-style-type: none"> <li>Identifies the name (e.g., Windows 98), but not the function of an operating system</li> </ul>
<b>Software Applications</b>	Runs software for intended purpose(s)	<ul style="list-style-type: none"> <li>Explores highly sophisticated industry - specific software</li> <li>Adjusts software for specialized applications and functions</li> </ul>	<ul style="list-style-type: none"> <li>Uses four basic software applications*</li> <li>Uses program-specific (e.g., accounting) software in classroom projects</li> <li>Troubleshoots simple software errors to complete tasks</li> </ul>	<ul style="list-style-type: none"> <li>Knows and uses limited software applications</li> </ul>	<ul style="list-style-type: none"> <li>Uses a standard word processor</li> </ul>
<b>Networking and E-Mail</b>	Uses networks and e-mail to access information and interact with others	<ul style="list-style-type: none"> <li>Keeps e-mail address book</li> <li>Understands the components and connections of networking</li> <li>Maintains network connections</li> </ul>	<ul style="list-style-type: none"> <li>Navigates LAN, WAN independently**</li> <li>Corresponds regularly and independently with e-mail</li> </ul>	<ul style="list-style-type: none"> <li>Uses e-mail, but occasionally requires assistance</li> <li>Confuses LAN and WAN</li> </ul>	<ul style="list-style-type: none"> <li>Requires continued assistance to use e-mail</li> <li>Fails to respond or is tardy in responding (more than 48 hours)</li> </ul>
<b>Internet Searches</b>	Uses the Internet to conduct research, access information, and interact with others	<ul style="list-style-type: none"> <li>Keeps Internet site information (e.g., bookmarks)</li> <li>Uses multiple search engines</li> <li>Pursues source material beyond the first set of "hits"</li> </ul>	<ul style="list-style-type: none"> <li>Uses one search engine and known Internet addresses to conduct research</li> <li>Conducts searches independently</li> </ul>	<ul style="list-style-type: none"> <li>Uses known or common Internet addresses to gather information, but requires assistance</li> </ul>	<ul style="list-style-type: none"> <li>Requires constant monitoring while on the Internet</li> <li>Breaks Internet use policy</li> </ul>

\*The four basic software applications include word processing, spreadsheet, database, and telecommunications software.

\*\*LAN refers to a Local Area Network (site-specific), and WAN refers to a Wide Area Network (multi-site).

### Pre-Employment Skills

COMPONENT	Benchmark	RATING			
		4 (Advanced)	3 (Proficient)	2 (Partially Proficient)	1 (Novice)
A) Career Interests and Characteristics	Understands personal interests as they relate to job characteristics	<ul style="list-style-type: none"> <li>Identifies career field and specific jobs</li> <li>Gives pros and cons of career characteristics</li> <li>Initiates steps to accomplish career goals, including participating in personal development activities</li> </ul>	<ul style="list-style-type: none"> <li>Identifies career field and characteristics that appeal to oneself</li> <li>Actively researches career opportunities</li> </ul>	<ul style="list-style-type: none"> <li>Identifies career field, but cannot give specific characteristics or gives wrong characteristics of the job</li> </ul>	<ul style="list-style-type: none"> <li>Cannot identify a career field or characteristics that appeal</li> </ul>
B) Career Prerequisites	Knows the educational and experiential demands for a potential job	<ul style="list-style-type: none"> <li>Gives specific education/training and experience desired</li> <li>Identifies school/training facility</li> <li>Identifies two specific jobs and two possible employers</li> </ul>	<ul style="list-style-type: none"> <li>Gives needed education/training and experiences</li> <li>Identifies one job along with a potential local employer</li> </ul>	<ul style="list-style-type: none"> <li>Gives needed training and experiences</li> <li>Identifies one job, but no local employer</li> </ul>	<ul style="list-style-type: none"> <li>Gives needed training or experiences</li> <li>Cannot specify a job or local employer</li> </ul>
C) Employment Potential	Identifies job possibilities and locates local employers	<ul style="list-style-type: none"> <li>Identifies more than 2 sources of job information</li> <li>Has all needed documents</li> <li>Contacts an employer and gets an interview</li> </ul>	<ul style="list-style-type: none"> <li>Identifies 2 sources of job information</li> <li>Has all needed documents</li> <li>Contacts employer for interview</li> </ul>	<ul style="list-style-type: none"> <li>Identifies one source of job information</li> <li>Has all needed documents</li> <li>Attempts to contact employer, but fails to connect</li> </ul>	<ul style="list-style-type: none"> <li>Identifies one source of job information</li> <li>Missing one or more needed documents</li> <li>Fails to contact employer for an interview</li> </ul>
D) Resume, Application, and Interview	Creates resume and application for a real interview	<ul style="list-style-type: none"> <li>Resume and application are typed, ordered, free from error, contain all relevant information with compelling presentation</li> <li>Interview is very well conducted, enthusiastic, and determined</li> </ul>	<ul style="list-style-type: none"> <li>Resume and application are typed, neat, with few minor errors and all relevant information</li> <li>Interview is well conducted and proper</li> </ul>	<ul style="list-style-type: none"> <li>Resume and application are typed, but not typed, with errors and some missing information</li> <li>Interview is inappropriate and/or stammering</li> </ul>	<ul style="list-style-type: none"> <li><u>Resume and application are not neat and has information missing</u></li> <li>During the interview, student's appearance is inappropriate</li> </ul>

### ***Employability Skills***

<b>COMPONENT</b>	<b>Benchmark</b>	<b>RATING</b>			
		<b>4 (Advanced)</b>	<b>3 (Proficient)</b>	<b>2 (Partially Proficient)</b>	<b>1 (Novice)</b>
A) Punctuality and Attendance	Demonstrates responsible job attendance habits	<ul style="list-style-type: none"> <li>Is always punctual and rarely misses work (near perfect attendance)</li> </ul>	<ul style="list-style-type: none"> <li>Is rarely tardy and only occasionally misses work (less than twice a month)</li> </ul>	<ul style="list-style-type: none"> <li>Is tardy 2-4 times per month and misses work about twice a month</li> </ul>	<ul style="list-style-type: none"> <li>Is tardy more than 4 times per month and/or misses work 3 or more times per month</li> </ul>
B) Interpersonal Relations	Works and communicates well with others	<ul style="list-style-type: none"> <li><u>Functions as a teamplayer</u></li> <li>Communicates especially well with colleagues and customers</li> </ul>	<ul style="list-style-type: none"> <li>Works well with others</li> <li>Communicates appropriately</li> </ul>	<ul style="list-style-type: none"> <li>Has one of the following interpersonal problems: Works well with some, but not others, or communicates poorly</li> </ul>	<ul style="list-style-type: none"> <li>Has the following problems: Conflicts with co-workers, and communicates poorly</li> </ul>
C) Attitude and Appearance	Shows positive work ethic and motivation	<ul style="list-style-type: none"> <li>"Dresses for success"</li> <li>Enthusiastic worker</li> </ul>	<ul style="list-style-type: none"> <li>Dresses appropriate to the position</li> <li>Demonstrates positive outlook toward work</li> </ul>	<ul style="list-style-type: none"> <li>Occasionally looks poorly groomed or disheveled</li> <li>Variable, mediocre attitude</li> </ul>	<ul style="list-style-type: none"> <li>Often looks poorly groomed or disheveled</li> <li>Negative work attitude</li> </ul>
D) Task Completion	Finishes quality work on time	<ul style="list-style-type: none"> <li>Always completes task to specification</li> <li>Delivers high quality results on schedule</li> </ul>	<ul style="list-style-type: none"> <li>Completes task to specification within or close to the allocated time, independently</li> </ul>	<ul style="list-style-type: none"> <li>Completes task but not to specification, within or close to the allocated time</li> </ul>	<ul style="list-style-type: none"> <li>Does not complete task, and not to specification or close to the time allotted</li> </ul>

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