

ISSUE 1: WVU Tech's Location Presents Challenges That Should Be Addressed by an Institutional Focus on Community and Student Needs.

Summary

The mission of the West Virginia University Institute of Technology (WVU Tech) is unique in that it is the only public institute of technology in the state and it prepares students in the critical fields of science, technology, engineering and mathematics. However, it is located in a small, rural town with few restaurants or businesses to enhance the quality of student life. Students who drive to WVU Tech on a daily basis must cope with industrial traffic on narrow mountain roads, and park on the major streets while attending classes. In addition, the campus has a number of aging buildings and its physical plant has significant problems due to poor or deferred maintenance. Although some progress has been made in repairing the aging buildings on campus, this has not been finished and will be an ongoing, substantial expense. While WVU Tech cannot change its physical location, it should work with the community of Montgomery to address improvements. WVU Tech should also identify and address the needs of its students to enhance the quality of student life.

Background



Figure 1: Old Main and Tech Center

WVU Tech primarily serves the southern counties of the state. It was started as a preparatory school for West Virginia University in 1895. Administrative operations are located in Old Main, an original structure. As the state's only public institute of technology, WVU Tech offers baccalaureate degrees that address the engineering, scientific and technical education needs of business, industry and government. Its mission and curriculum support the master plan for West Virginia Higher Education which calls for the graduation of more students in high-demand fields and workforce shortage areas, particularly in science, technology, engineering and mathematics. Presently, WVU Tech and West Virginia University have the only colleges of engineering in West Virginia, offering nationally accredited degrees for professional engineers. Students attending Marshall University can receive an engineering degree in civil engineering issued from WVU Tech. On July 1, 2007, WVU Tech became a division of West Virginia University. Prior to division status, the West Virginia Institute of Technology was a regional campus of West Virginia University. Its name was changed to the West Virginia University Institute of Technology when it first affiliated with WVU in 1996.

WVU Tech's Location is Isolated

Montgomery, home of WVU Tech, is a small, rural town which straddles the two southern West Virginia counties of Fayette and Kanawha. It had a population of 1,942 as of the 2000 US census. The largest population centers nearby are the capital city of Charleston which is a 40 minute drive away, and the city of Beckley which is approximately an hour's drive from WVU Tech.

Highway travel to other institutions of higher education in West Virginia has changed over the years, and it is considerably easier for students interested in science, technology, engineering and mathematics to travel to the state universities in Morgantown and Huntington than it was when WVU Tech was the West Virginia Institute of Technology in the 1960s. Travel time from Charleston to Morgantown in 1960 was four hours and 45 minutes. Today, because of better, more direct highways, travel time to Morgantown has decreased by two hours and 20 minutes. Travel time to Huntington from Charleston in 1960 took one hour and 25 minutes. In 2008, travel time from Charleston to Huntington has decreased to 56 minutes due to better highways. **However, travel time to Montgomery from Charleston has only decreased by 11 minutes since 1960 since little change has been made to the highway access to Montgomery in the intervening 48 years. According to the West Virginia Division of Highways, the cost of making U.S. Route 60 a four-lane highway 11 miles from the Chelyan to Montgomery would be approximately \$415 million.** Additional travel times from Princeton, Lewisburg and Beckley comparing 1960 travel times with 2008 are found in Table 1 in Appendix B.

There is no major interstate highway, or controlled access highway, leading directly to WVU Tech in Montgomery. Even with this physical isolation, almost three-quarters of the students enrolled at WVU Tech do not reside in student housing. Many commute from locations outside of Montgomery. The WVU Tech campus is located 12 miles from the nearest interstate. The primary access roads into Montgomery are either US Route 60 (on the northeast bank of the Kanawha River) or state road 61 (on the southeast bank of the Kanawha River). State road 61 is also named the Fayette Pike in Montgomery. Both are narrow, winding two lane roads heavily

traveled by multi-ton coal trucks in addition to students in personal vehicles driving to WVU Tech. Once in Montgomery, students park along both sides of the Fayette Pike in front of the campus.

WVU Tech sits on a steep hillside and overlooks the community of Montgomery. The campus of WVU Tech is separated from the business section of Montgomery by the Fayette Pike and the Chesapeake and Ohio (C&O) railroad tracks



Figure 2: WVU Tech abuts the Fayette Pike where students often park.

(see Appendix C for two map views of Montgomery).

In addition to the congested, busy secondary road that traverses Montgomery, the business district near WVU Tech gives an appearance of physical distress. Some downtown buildings appear to be vacant. Few businesses appear to provide goods or services specifically for students (see Appendix D). The experience of driving to Montgomery can be challenging, and once in Montgomery there are few businesses or restaurants to enhance a student's visit.

Students Choose WVU Based on Programs and Location

In the spring semester of AY 2008, the Legislative Auditor surveyed undergraduate students from southern counties enrolled in engineering classes at West Virginia University regarding their reasons for choosing WVU over WVU Tech (See Issue 3 for complete results of the student survey). Here are some comments by students regarding their choice of institution:

- WVUIT did not offer a degree in my specific engineering field. However, I would have considered Tech if it would have moved to Charleston and taken advantage of the DOW tech center offer. Montgomery does not provide a higher education environment. This is just an older area trying to hold on to the last thing it's got. Their protest to keep Tech in Montgomery was not for the benefit of the students or their education. All of Tech's programs, including engineering, will continue to decline in Montgomery for this reason. I feel that WVU-Morgantown offers more opportunity.
- I have been a lifelong Mountaineers fan so that was the main reason I chose WVU. But a major problem I feel with kids my age is Montgomery is not a very appealing place at all. The town is basically a ghost town and it is very depressing. I understand it may be a good school, but if it was [joined] to WVU and came to Morgantown where people actually want to be.
- I should say that I have known some brilliant engineers that have graduated from WVU Tech. My personal opinion was at the time, and still is, that the town of Montgomery and the school's campus is not only not conducive to creative thought, but is also less of a culturally diverse location. Although WVU (Morgantown) is admittedly lacking in a culturally enriching atmosphere, it was the best choice for an Engineering School in my specific price range.

Capital Improvements at WVU Tech

Prior to the July 2007 change from a regional campus to a division of West Virginia University, buildings on the WVU Tech campus shared the physical distress that is apparent in observing the small community of Montgomery. In WVC §18B-1C-1, it is noted that *Facilities at West Virginia University Institute of Technology are in greater disrepair and in greater need of overall capital investment than are facilities at West Virginia University.* An example of the disrepair is the Coed residence hall which is no longer in use due to structural and water incursion problems (see Appendix C). As part of the change to division status, a transition steering committee with members from WVU and WVU Tech identified capital improvements that needed to take place on the WVU Tech campus due to the disrepair of the facilities. The West Virginia University Board of Governors approved two capital projects financed by a capital

lease not to exceed a cost of \$11 million in principal amount. Two major projects financed by this capital lease are completed. They are the following renovations:

- **Maclin Hall.** This student dormitory renovation cost \$6.2 million, created over 145 student rooms and includes upgrades to meet all code issues, the installation of new sprinkler and fire alarm systems; a new roof; new heating and cooling system; updates to student bathrooms; and new interior finishes. The renovation was completed in time for in-coming students for academic year (AY) 2008.



Figure 3: Entrance to Maclin Hall from Fayette Pike



Figure 4: Maclin Hall Student Lounge

- **Tech Center (Student Center).** This renovation cost \$4.6 million and includes upgrades for the sprinkler and fire alarm system in addition to the relocation of the campus dining service with renovations to the former snack bar kitchen and serving area, and new finishes to other student areas such as meeting rooms and the ballroom. The renovation was completed in January 2008, mid-way into AY 2008.



Figure 5: Tech Center Renovated Dining Area



Figure 6: Tech Center Renovated Food Service

The renovations were funded by a capital lease, which was awarded to the Suntrust Leasing Corporation. Because it is a five-year lease purchase agreement with *three additional five-year renewal periods*, the lease could be in effect for as long as 20 years. The first five-year period requires nine semi-annual principal and interest payments of \$402,437. **At the end of the first five year period, the final payment is a balloon payment of \$9,177,437.** If the lease is

paid off in the first five-year period, it will total \$12,799,377. If the lease is rolled over, the cost to the institution will be greater. Including the WVU Tech lease, the capital lease obligations outstanding for the Higher Education Fund presently total about \$46.2 million.

In addition to the capital lease building renovations, upgrades have been made or planned for other campus facilities. Engineering upgrades have been a priority. Facing an accreditation visit in AY 2008-09 by the Accreditation Board for Engineering and Technology (ABET), the Leonard C. Nelson (LCN) College of Engineering and Sciences needed to address prior concerns of the accrediting body and replace aging and outdated equipment in its engineering laboratories. It also needed to upgrade and modernize its engineering auditorium. For FY 2007 and FY 2008, the Legislature approved and re-appropriated a total allocation of \$3.2 million to provide for these upgrades. The financial appropriation by the Legislature for the LCN College of Engineering and Sciences allowed the institution to add needed laboratory equipment and make other improvements to the engineering college without incurring additional debt. These upgrades have been completed, and the LCN College of Engineering and Sciences welcomed in-coming students in the fall of 2008 to a newly refurbished set of laboratories, computer science classrooms and a renovated and modernized engineering auditorium.



Figure 6 Robotics Lab has new equipment.



Figure 7 The engineering auditorium is completely refurbished with all new lighting, seating, and screens in addition to audiovisual equipment.

Payment of the capital lease for the renovation of Maclin Hall and the Tech Center represents a significant ongoing expense for the institution. Also, the engineering building still needs a new roof and new air handlers. These repairs are listed as priority projects in a grant application from West Virginia University to the Higher Education Policy Commission (HEPC) for a 50 percent matching grant. In addition, other buildings on the WVU Tech campus need new roofs, and additional repairs and electrical upgrades. These infrastructure needs will continue to add substantially to the ongoing capital expenses of the institution.

Conclusion

WVU Tech is struggling to overcome significant barriers in order to increase student enrollment. One barrier is the isolation and difficulty of travel by students to its location in Montgomery. Once in Montgomery, the lack of businesses to provide services or entertainment for students detracts from the quality of student life. Another barrier is the widespread disrepair of the aging structures on campus. The dilapidated condition of two of its facilities has already required costly repairs and renovation, and other facilities on campus need such major replacement items as new roofs and new heating and cooling systems. While the change to division status with West Virginia University has enhanced the institution's capacity for borrowing, the increased borrowing capacity has already resulted in substantial debt. Additional repairs will result in additional debt. Fixing the infrastructure problems on campus does not address the physical problem of access to Montgomery or the intangible problem of the quality of student life in Montgomery. The Legislative Auditor concludes that significant changes to make physical access to WVU Tech less difficult are unlikely without a major investment in highway construction. In addition, enhancing Montgomery is a long-term project of community relations. However, the institution should identify and address the needs of students while they are on the Montgomery campus, since there may be practical steps, such as increased off-street parking, that the institution can take to enhance the experience of students attending WVU Tech.

Recommendations

1. *WVU Tech should consider surveying all students to determine how the institution can best meet student needs, including but not limited to student travel and vehicle parking issues.*
2. *WVU Tech should work with the town of Montgomery to improve the appearance of the town and to enhance the quality of student life.*
3. *WVU Tech should carefully consider the future financial impact of all capital improvements to its campus.*

ISSUE 2: Enrollment at WVU Tech Should Be Primary Focus of the Institution's Efforts to Achieve Financial Stability

Summary

Enrollment of students at the West Virginia University Institute of Technology (WVU Tech) has declined steadily since 1991, when 3,054 students were enrolled in the two-year and four-year programs. By 2007, only 2,210 students enrolled in two-year and four-year programs, a loss of 844 students, or a 28 percent decline in student enrollment from 1991. However, the decline in enrollment of engineering students in the Leonard C. Nelson (LCN) College of Engineering and Sciences is more pronounced. Engineering enrollment declined by 49 percent between 1992 and 2007. Declining engineering program enrollment at WVU Tech continued during this time period despite teaching and course collaborations with West Virginia University in 1999, Marshall University in 2004, the addition of a baccalaureate degree in Computer Engineering in 1998, and an increase of engineering majors offered at WVU Tech.

WVU Tech posted a \$1.2 million deficit for FY 2007 and expects to post a deficit for FY 2008. Internal financial projections indicate continuing deficits unless the decline in student enrollment is halted and restored to enrollment levels of the mid 1990s. Focus on the student enrollment problem has been blurred by competing events on the Montgomery campus including 1) division status changes resulting in consolidation of some departments with West Virginia University; 2) turnover and loss of personnel in key administrative, management and decision-making positions; and 3) overall financial assessment. Although a number of factors may affect enrollment, there is reason to believe that students are available but choose not to attend WVU Tech. A comparison of five counties providing students to engineering programs at WVU Tech and West Virginia University shows that the number of students enrolling in engineering classes in 1997 and in 2007 from those counties remained the same, but West Virginia University obtained a greater percentage of the students over time. WVU Tech must address the cause or causes for this shift and strongly reposition itself in the marketplace to enroll students.

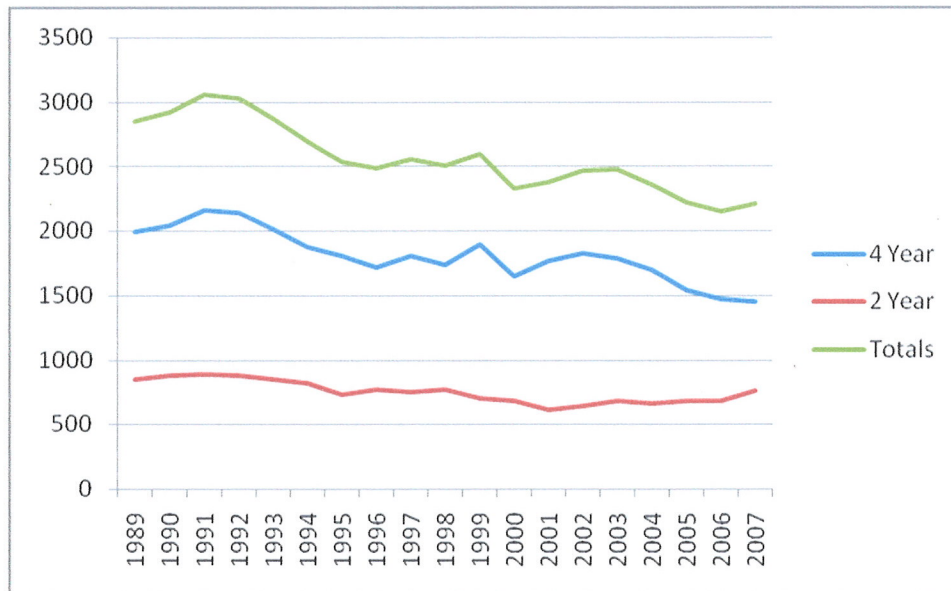
WVU Tech Student Enrollment Is Declining

Overall student enrollment at WVU Tech has declined over the past 16 years.¹ In West Virginia, student tuition and fees contribute about two-thirds of total revenue for public institutions of higher education. Therefore, the number of enrolled students is important in assessing the financial viability of an institution. In 1991, WVU Tech enrolled 3,054 students in two-year and four-year classes for the fall semester. By academic year (AY) 2008, the fall semester student enrollment for two-year and four-year classes was lower by 844 students and the overall enrollment count was 2,210 (see Figure 1 below). During this period, the fall

¹ Since the Community and Technical College (which offers two-year classes) was not separated from WVU Tech until 2004, the Community and Technical College is included in the designation "overall student enrollment."

semester in 1991 (AY 1992) had the highest enrollment of students. The overall decline in enrollment from fall semester 1991 until fall semester 2007 is 28 percent.

Figure 8: Decline in Overall Student Enrollment

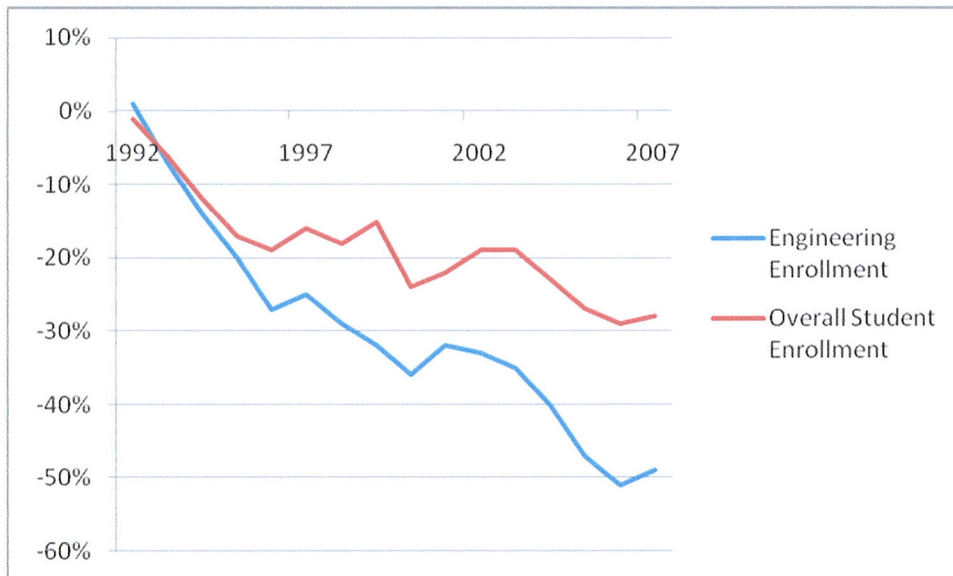


Source: Enrollment count from WVU Tech for 1989-2007.

The LCN College of Engineering and Sciences experienced a greater decline in enrollment than the overall decline at WVU Tech. In 1989, the College of Engineering and Sciences had a fall enrollment for AY 1990 of 742 undergraduate students. **For the next five years, the undergraduate engineering enrollment rose and reached a high of 804 students for the 1992 fall semester of AY 1993.** However, in the fall of 1993 (AY 1994) engineering enrollment dropped by 59 students and the number of engineering students has continued to decline in each succeeding year. By AY 2008, the fall enrollment of the College of Engineering and Sciences (which included the 16 civil engineering students enrolled at Marshall) was 410 undergraduate students.² **This is a 49 percent decline in engineering enrollment during the 15 year period** (see Figure 2 below).

² Marshall civil engineering students were counted each semester starting for the AY 2007. In fall 2006 there were 20 student, and in spring 2007 there were 17 students at Marshall. For AY 2008 in spring 2008 there were 13 students.

Figure 2: Engineering Enrollment Decline Is Steeper Than Overall Enrollment Decline Since 1992



Source: Engineering enrollment count from WVU Tech for 1992-2007.

According to the acting dean, the College of Engineering and Sciences can physically accommodate about 700 professional engineering students. Instructors would need to be added to keep class size to an optimum number of 20 students to one instructor. In fall 2007, the College of Engineering and Sciences was at 58 percent of its capacity.³

WVU Tech Competes With WVU For Engineering Students; More Local Engineering Students Choose WVU Today

In 1997 and in 2007, the number of students enrolled in engineering classes at WVU Tech and West Virginia University from five counties near WVU Tech has remained almost the same. These counties have historically provided the largest numbers of in-state students to the LCN College of Engineering and Sciences at WVU Tech.⁴ In 1997, 427 students from Cabell, Fayette, Kanawha, Putnam and Raleigh counties enrolled in engineering classes at WVU and WVU Tech. Seventy-five percent of these engineering students were enrolled at WVU Tech. In 2007, 421 students from these counties enrolled in engineering classes at WVU Tech and West

³ The College of Engineering and Sciences could physically accommodate as many as 850 students if class size were to increase to 24 per class.

⁴ In 1997, the four-year WVU Tech enrollment from Cabell, Fayette, Kanawha, Putnam and Raleigh counties was 1,150. In 2007, the four-year enrollment from these counties was 806.

Engineering Students From Cabell, Fayette, Kanawha, Putnam, Raleigh Attending WVU and WVU Tech In 1997 and 2007

	1997	2007
WVU	108	218
Tech	319	203
Total	427	421

Change in Percentage Attending WVU and WVU Tech

	1997	2007
WVU	25%	52%
Tech	75%	48%

Virginia University. However, the percentage of these students attending WVU Tech decreased from 75 percent to 48 percent. The continuing number of students interested in and meeting the requirements to enroll in engineering courses indicates that declining county population and high school graduation rates may not be significant as a factor in WVU Tech's decline in engineering enrollment.

The apparently stable number of students from the five counties that supplied the highest number of engineering students to WVU Tech indicates that in recent years, more of the students enrolling in engineering classes are choosing to attend West Virginia University over WVU Tech. One factor influencing the choice to attend WVU may be the range of engineering studies available at WVU. WVU offers baccalaureate degrees in the

following engineering fields: 1) chemical, 2) civil and environmental, 3) industrial and management systems, 4) computer science and electrical, 5) mechanical and aerospace, 6) mining, and 7) petroleum and natural gas. The WVU Tech program offers baccalaureate degrees in five basic engineering fields: 1) chemical, 2) civil, 3) electrical, 4) mechanical, and 5) computer science. WVU Tech students who want to obtain a degree in an engineering area not offered by WVU Tech can take the first two years at WVU Tech but must transfer under a 2+2 articulation agreement to WVU to complete their remaining two years.

A second factor in the choice to attend WVU may be the award of the state's merit-based Promise Scholarship. West Virginia awards eligible high school graduates the Promise Scholarship each year. The Promise Scholarship is available for all public and private institutions of higher education in the state. Promise pays tuition and mandatory fees for four years at any public institution in the state that the eligible student elects to attend. Private in-state institutions receive a cash award. Once the state determines the award for a specific student, the institution determines the scholar's continuing eligibility. The first Promise awards were made for fall semester of AY 2003. In fall 2002, the state awarded 3,497 Promise scholarships to students attending public and private colleges in the state. This number climbed to a total of 9,299 Promise awards in AY 2007. Also in AY 2007, 45 percent of all Promise scholars attended WVU, and 17 percent attended Marshall. WVU Tech had 180 Promise scholars which were 2 percent of the total Promise scholarships awarded for AY 2007. A trend toward more engineering students from Cabell, Fayette, Kanawha, Putnam and Raleigh counties attending WVU began to appear in the second year of the Promise Scholarships, and by Promise's fourth year, WVU had enrolled more engineering students than WVU Tech.

During the period of declining enrollment, the LCN College of Engineering and Sciences has maintained its national accreditation and expanded engineering opportunities for WVU Tech students. In 1999, the WVU Tech LCN College of Engineering and Sciences entered into an agreement with the College of Engineering and Mineral Resources at West Virginia University

to teach classes through distance learning. Immediately following this initiative, several classes were taught in conjunction with WVU. Presently, WVU Tech receives a distance learning mining engineering course from WVU.

WVU Tech offered new courses in the College of Engineering and Sciences beginning in 1998 with the addition of a baccalaureate degree in Computer Engineering. WVU Tech continued to add additional engineering options including Aerospace Engineering, Industrial Technology and Engineering Technology through fall 2004. Also, in 2004 WVU Tech entered into an agreement with Marshall University to teach civil engineering courses at Marshall. Marshall engineering students enrolled under this agreement receive a degree in civil engineering awarded by WVU Tech. In 1997, at the beginning of these initiatives, the College of Engineering had 604 students enrolled. This dropped to 410 students in the fall semester of AY 2008, but has shown a slight rebound for AY 2009 with 440 students enrolling in engineering for fall semester. Despite these efforts, and including counting the civil engineering students enrolled at Marshall, the overall engineering enrollment at WVU Tech has declined sharply from its high of 804 students in fall semester of 1992 (AY 1993).

An Historical Review of WVU Tech Student Enrollment

The Legislative Auditor reviewed fall student enrollment information from 1953 through 2007 for West Virginia University Institute of Technology. In 1953, WVU Tech had a total enrollment of 506 students⁵. The enrollment has increased over the years, and since 1989 the *average* fall enrollment for the combined two-year and four-year programs has been 2,704 students. WVU Tech has achieved a fall enrollment headcount of over 3,000 for only four academic years. They are the academic years of 1975-76 (AY 1976), 1980-81 (AY 1981), 1991-92 (AY 1992) and 1992-93 (AY 1993). The largest fall enrollment took place in 1980 when 3,343 students enrolled (see Figure 3).

⁵ In 1953, WVU Tech was named the West Virginia Institute of Technology.

Figure 3: Historical WVU Tech Enrollment Showing Kanawha, Fayette and Raleigh



Source: WVU Tech and the Higher Education Policy Commission

The Legislative Auditor also reviewed the counties of residence for in-state students enrolled at WVU Tech. Kanawha and Fayette counties consistently contribute the largest number of students to WVU Tech. In fall 2007, 30 percent of the students enrolled in the two and four-year institutions were from Kanawha County. Students from Fayette County comprised 24 percent of the total enrollment. Historically, Raleigh County has not provided more than seven percent of the student enrollment, and in 2007 only four percent of the students came from Raleigh County.

WVU Tech’s 2008 Enrollment Falls Short of Needed FTEs

Total enrollment shows the number of individual students enrolling for one or more classes at an institution. However, enrollment is only part of the institution’s calculation of student revenue. Institutional revenue from students is actually based on the number of “full time equivalents” (FTE) enrolled.⁶ AT WVU Tech, the enrollment that historically included the Community and Technical College no longer counts CTC students because the community college is separated from WVU Tech. The 1,211 FTEs enrolled at WVU Tech in fall 2007 (AY 2008) did not include enrollment at the community college, and fell short of generating enough revenue from student enrollment and student fees needed for operations. Although WVU Tech is now a division of WVU, it must pay its own operating costs from the revenue it generates. The Chief Financial Officer for WVU Tech estimates that **1,931 FTEs, each paying an annual tuition and fees of \$4,964, is necessary for AY 2009 in order to generate about \$9.5 million, or two-thirds of the revenue needed by WVU Tech.** This represents an increased number of

⁶ The FTE is a statistic derived from the student credit hour output of the institution. It is based on 15 credit hours and includes part-time and full-time enrolled students.

720 FTEs from fall 2007 in order for WVU Tech to generate adequate revenue to meet anticipated operational expenses. **However, a review of the FTEs at the four-year college of WVU Tech from 1989 onward indicates the highest number of FTEs enrolled was only 1,881 in fall 1992 (AY 1993). When enrollment numbers were posted for fall semester AY 2009, the total enrollment of FTEs was 1,034.** This number represents a decrease of 177 FTEs from fall semester of AY 2008.

WVU Tech Is Experiencing Financial Deficits

WVU Tech posted a financial deficit of \$1.2 million in FY 2007, and expects to have a deficit for FY 2008, despite administrative consolidations with WVU, and the elimination of six on-campus administrative positions. Internal financial projections by the Chief Financial Officer at WVU Tech indicate that expenditures will continue to be greater than revenue generated from student tuition and fees, state appropriations and other sources for FY 2009 through FY 2012. However, the Provost and the Chief Financial Officer are in the process of developing a plan by which they hope to eliminate deficit spending by the end of FY 2009. In addition to attempting to raise the student enrollment over the next four years, the financial plan will incorporate the following:

- 1) transferring management of the nursing program to the WVU School of Nursing,
- 2) closing-off unnecessary dormitory space in one residence hall,
- 3) auctioning surplus equipment,
- 4) leasing three residential properties owned by WVU Tech,
- 5) reducing the number of vehicles and replacing existing vehicles with fuel-efficient models, and
- 6) reducing the institution's marketing and communications budget.

Although WVU Tech consolidated some administrative functions following the change in status to a division of WVU, it appears that the only real solution to the financial problems at WVU Tech will be to increase the number of students enrolling for classes.

Recent Enrollment at Other Institutions in West Virginia

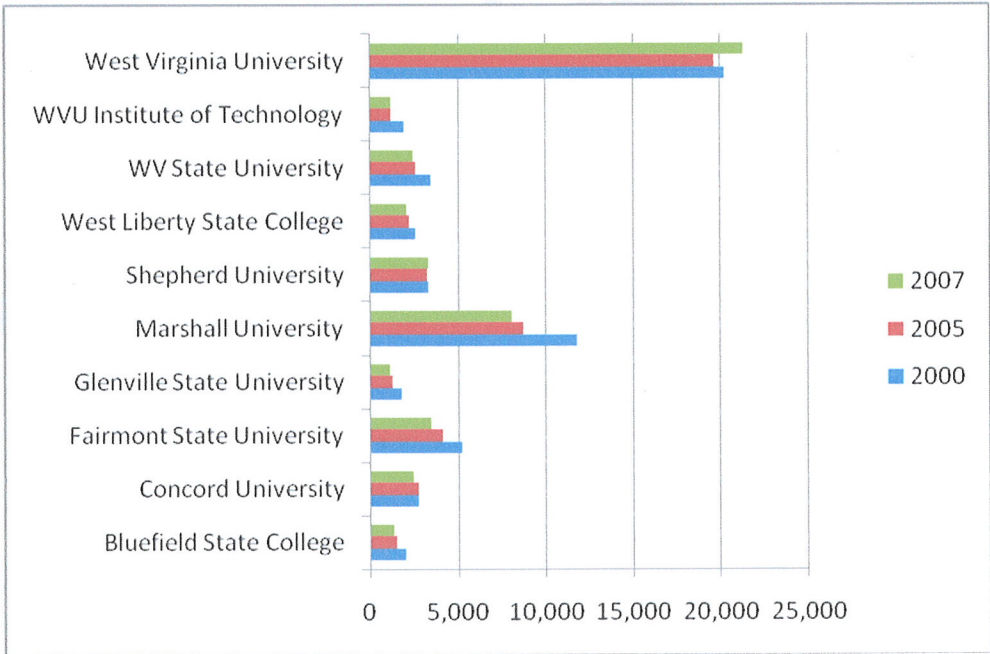
In fall 2007 (AY 2008), WVU Tech had 1,211 FTEs and experienced a further decrease of 177 FTEs in fall 2008 (AY 2009). In analyzing the declining enrollment at WVU Tech, the Legislative Auditor compared the FTE undergraduate enrollment from fall semesters of 2000 (AY 2001), 2005 (AY2006) and 2007 (AY 2008) at ten public baccalaureate institutions to determine if the declining FTE enrollment was specific to WVU Tech, or indicative of

enrollment at other similarly sized institutions.⁷ Statewide undergraduate FTE enrollments are compared in Table 1 below.

Table 2 Ten West Virginia Public Institutions of Higher Education FTE Undergraduate Enrollments For 2000, 2005 and 2007			
	2000	2005	2007
FTE Undergraduate Enrollment	53,375	47,445	47,099

During this seven year period, only Shepherd University and West Virginia University maintained the same undergraduate FTEs, or increased undergraduate FTE enrollment. FTE undergraduate enrollment at the other eight public institutions in the state declined (see Figure 4 below).

Figure 4: FTE Enrollment at Eight Public Institutions Declined Since Fall 2000



Source: PERD compilation from Higher Education Policy Commission enrollment reports.

⁷ The ten institutions are: Bluefield, Concord, Fairmont, Glenville, Marshall, Shepherd, West Liberty, WV State, West Virginia University and WVU Tech. Due to its small size and highly specialized training program, the West Virginia School of Osteopathic Medicine was not included in this review.

FTE enrollments were not available from the Higher Education Policy Commission for the nine private institutions in the state. However, compared to the public institutions, fewer private institutions showed enrollment declines between 2000 and 2007 (see Appendix E). Mountain State University, the largest and most robust in enrollment of the private institutions, is located in Beckley, about 45 minutes from WVU Tech. Mountain State offers associate, baccalaureate and graduate degrees, including degrees in nursing, computer science, information technology and business administration which may compete with degrees offered by WVU Tech.

Declining Population, High School Graduation and College-Going Rates Impact the Number of WVU Tech Applicants

Although a majority of students who attend WVU Tech reside in southern West Virginia counties and many commute to the WVU Tech campus, the available number of college-going students from the southern counties of West Virginia is shrinking. High school graduation rates in West Virginia have declined by three percent since the year 2000. The two counties that contribute the largest numbers of students to WVU Tech experienced three and two percent declines in high school graduation rates over the past seven years. They are Kanawha and Fayette counties, respectively.

According to a report by the West Virginia Higher Education Policy Commission, 20 counties in southern West Virginia have college-going rates that are lower by a combined seven percent than the state-wide average⁸. These are the counties that are geographically closest to WVU Tech. Declines in population have also impacted these counties. Four of these southern counties have experienced significant declines in population since 1990:

- 16 percent in Logan County,
- 32 percent in McDowell County,
- 20 percent in Mingo County, and
- 16 percent in Wyoming County.

The two counties with the highest number of WVU Tech students have also declined in population. Kanawha County has lost seven percent of its total population since 1990, and Fayette County has lost three percent. Despite Kanawha County's loss of population, approximately the same number of students from the county attends WVU Tech each year. Fayette County has shown a slight decline in the number of students attending WVU Tech.

Finally, not all high school graduates are interested in applying to the technical and specialized programs at West Virginia University Institute of Technology. Many of the baccalaureate degrees offered at WVU Tech are in fields that require a high level of proficiency

⁸ *The statewide average college going rate in fall 2006 was 58.3 percent. The average of the college-going rate for the 20 southern counties in fall 2006 was 51.3 percent.*

in science and mathematics. WVU Tech specializes in offering degrees that meet the engineering, scientific or technical needs of business, industry and government.

WVU Tech Admissions and Financial Aid Office Problems

Efficient admissions and financial aid offices are essential to attracting and retaining qualified student applicants. Since admissions and financial aid play an integral role in the WVU Tech student enrollment process, the Legislative Auditor reviewed the functions of these offices for the immediate past and the upcoming student enrollment periods.

The Legislative Auditor found that the admissions and financial aid functions at WVU Tech, administered by the office of the Dean of Students and Enrollment Management, demonstrated impaired efficiency in processing applications and student financial aid for AY 2008, and AY 2009. This appears to be due to a large number of supervisory responsibilities administered by this office combined with a lack of professional and support personnel and a lack of supervisory oversight to implement these responsibilities. The office of the Dean of Students and Enrollment Management at WVU Tech was in charge of eight student-related functions for AY 2008, and AY 2009 including: 1) Recruitment; 2) Admissions; 3) Marketing; 4) Financial Aid; 5) Student Support Services; 6) Student Activities; 7) Retention Activities, and 8) Residence Life. In addition, the department of the Dean of Students and Enrollment Management provided local supervision of Food Service, Physical Facilities, and the Campus Police for West Virginia University.

The Legislative Auditor found that administrative problems in both the Admissions and the Financial Aid offices at WVU Tech have the potential to negatively impact student enrollments. The following two administrative problems demonstrate the impact of the change in staffing patterns, lack of professional and support staff and lack of supervisory oversight and management.

The first administrative problem resulted from the loss of the Director of Financial Aid position in August, 2007. The director's position was eliminated as a result of becoming a division of West Virginia University. The Director of Financial Aid is usually the institutional position designated to oversee the institution's use of the U.S. Department of Education's National Student Loan Data System (NSLDS) as the Destination Point Administrator. The Destination Point Administrator is necessary for the institution to have access to the NSLDS and the position involves oversight of the use of the different types of federal aid, the amounts requested and the validity of information submitted by the institution. The NSLDS is a comprehensive database containing confidential personal and financial information related to a student's receipt of federal student financial aid.

About 70 percent of WVU Tech students receive federal financial aid. With the loss of the Director of Financial Aid position, the Dean of Students and Enrollment Management was the person assigned to provide this important oversight function. However, the Dean of Students and Enrollment Management failed to complete and timely submit information to allow him to function as the NSLDS Destination Point Administrator. This omission was discovered in September 2007, approximately seven days before the federal deadline for submission. At this point, the Associate Provost assumed the responsibility of enrolling as Destination Point Administrator, and the forms were signed and submitted just prior to the deadline. If the

institution had failed to meet the deadline and had not enrolled a Destination Point Administrator, it would not have received access to the NSLDS in order to receive federal financial aid for its students. The loss of federal financial aid would have seriously impacted many students who would have been unable to attend WVU Tech.

In early February 2008, a second administrative problem was discovered relating to new student applications for enrollment for the coming fall semester. Until February 2008, the Dean of Students and Enrollment Management oversaw the student application process, including the acceptance decision and the physical processing of student applications for acceptance. However, when the majority of the student applications for fall semester of AY 2009 were discovered not to have been processed, or entered in the WVU Tech database, this responsibility was removed from the Dean of Students. The Director of Alumni Relations assumed the additional duties of Director of Admissions, and boxes of unprocessed applications were moved to the central administrative offices in the Old Main administrative building, in order that data entry personnel could be closely supervised, ensuring that the applications would be processed. A computerized web application was designed so that the daily progress of data entry could be monitored. The data entry backlog was discovered when applicants for fall semester of 2008 (AY 2009) began telephoning the WVU Tech Financial Aid Office and inquiring about why they had not received any financial aid information from WVU Tech.

This administrative problem resulted from insufficient management and supervision by the Admissions Office in order to ensure that admissions applications be processed in a timely manner comparable to other institutions. WVU Tech officials responded to this problem not only by making admissions management and location changes, but also by hiring the former Registrar of the institution to assess and evaluate the admissions and registration process, and to make recommendations for change.

Processing delays can seriously impact the number of applicants for any academic year since students may assume that they have not been accepted when acceptance letters from other institutions are received, and an acceptance letter from WVU Tech has not been received. In addition, early information about financial aid offers will impact the college attendance decision of many students and their parents. Problems in admissions and financial aid may have contributed to the disappointing student enrollment for AY 2008 and AY 2009. As part of the change to division status with WVU, starting in AY 2010, student financial aid information for WVU Tech will be processed through WVU. However, some financial aid functions will continue to take place through a financial aid office located at WVU Tech.

Turnover in Key Personnel, and Reductions in Staff Have Also Adversely Impacted WVU Tech

Leadership, management and administration at WVU Tech have been impacted by turnover and loss of key administrative positions at WVU Tech. Some of the turnover has been due to consolidation and centralization of administrative departments as a result of becoming a division of West Virginia University on July 1, 2007. However, the process of consolidation has not always proceeded smoothly. For example, following WVU Tech's change to division status, the WVU Tech Chief Financial Officer was reassigned to a special project, but retained her title

through FY 2008. In August 2008, the Legislative Auditor's Post Audit Division found that this officer's signature was used following her reassignment and without her knowledge or approval to issue over 2,000 checks from WVU Tech during FY 2008. During this period, the Chief Financial Officer position was filled by a WVU staff member who commutes between Montgomery and Morgantown. Another administrative division losing key personnel due to consolidation is the Financial Aid Office where the director's position was eliminated. This particularly impacted the fall semester 2007 (AY 2008) student enrollment as processing for financial aid recipients was delayed due to lack of personnel remaining in the WVU Tech Financial Aid Office. Training for remaining Financial Aid employees was delayed until spring 2008.

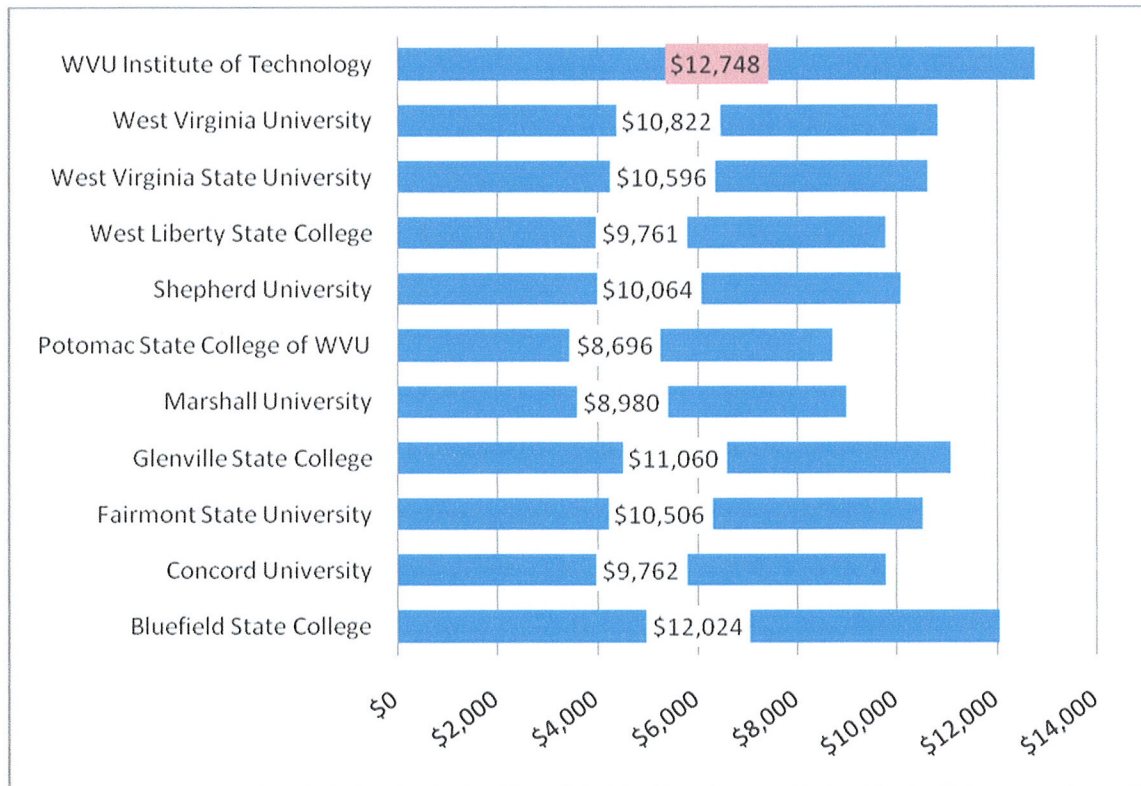
In addition to the loss or change in duties of personnel due to consolidation, WVU Tech has also lost key decision-makers. Since January 2008, the institution's Provost, Dean of Student Enrollment, Director of Alumni Relations and Student Recruitment and the Athletic Director have retired, resigned or been reassigned. Some of these positions were filled with interim appointments until late in 2008 when the interim Provost became the institution's Provost, and a new Dean of Enrollment Services was employed to perform the function of Director of Admissions. An acting dean is in place at the LCN College of Engineering and Sciences while the engineering college has undergone the periodic process of national accreditation. The turnover and lack of key personnel in decision-making and leadership positions has placed a heavy administrative burden on remaining personnel. The institution centralized many of its local management functions through the interim Provost's office.

Finally, a report from the Higher Education Policy Commission shows that WVU Tech has lost 67 faculty members and 46 classified employees since 1997. Overall, there were 105 fewer employees at the institution in 2007 than in 1997.

WVU Tech AY 2008 Commuter Costs Estimated Higher Than Other Public Institutions

The estimated annual commuter costs (including estimated living expenses, books, travel costs and other incidentals) provided to prospective students by WVU Tech's Admissions Office and based on in-state rates for AY 2008 for full time students indicated to prospective applicants that it would cost more to attend WVU Tech than to attend any other public institution in the state last year. High commuter costs should be considered a deterrent to student enrollment. The Legislative Auditor reviewed commuter cost comparisons because 74 percent of students at WVU Tech in AY 2008 did not reside in student housing (see Figure 5).

Figure 5: Institutional Commuter Budget Cost Comparisons AY 2007-08



Source: Commuter budget costs developed by the WVU Tech Department of Admissions based on Higher Education Policy Commission in-state rate information. Commuter budget costs typically include tuition and fees, books and supplies, an estimated cost for room and board, transportation and personal expenses.

The estimated costs for in-state *residential* students at WVU Tech were also high. In AY 2008 it cost more to live at WVU Tech than at eight other state institutions. Only Shepherd University and Glenville State College cost more for in-state residential students than WVU Tech.

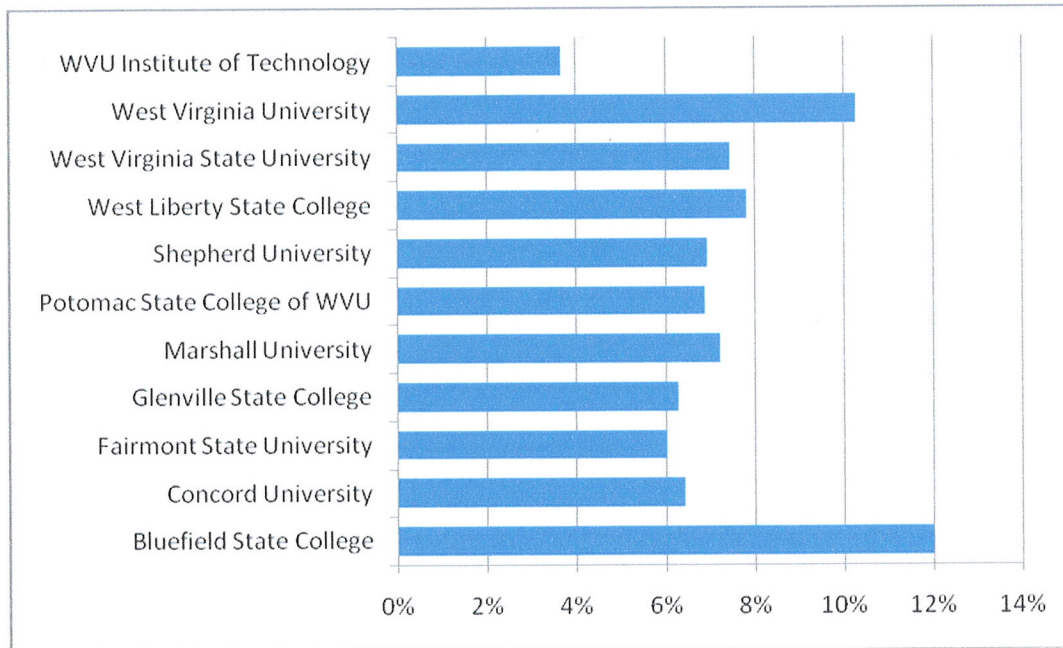
Tuition and fees to attend WVU Tech have risen over the past ten years. In 1997, WVU Tech students paid \$2,370 per year in tuition and fees. By 2007, tuition and fees at WVU Tech had risen to \$4,598 per year. For the AY 2009, the cost of tuition and fees at WVU Tech has increased by \$366, to \$4,964. This does not include the additional costs of books, residence, meals and other incidentals.

WVU Tech Can Control Certain Costs

The cost for tuition, fees, room and board for students to attend WVU Tech is one factor that can be addressed and partially controlled by the institution. At WVU Tech, non-repayable institutional financial aid defrays student expenses through housing waivers, scholarships, and tuition waivers. The Legislative Auditor reviewed tuition waivers given by all of the public institutions of higher education in West Virginia to determine whether WVU Tech was providing proportionally more in tuition waiver assistance than other state institutions. **WVU Tech issued**

fewer tuition waivers than any of the other public institutions during the academic year of 2006 (see Figure 6 below).

Figure 6: Comparison of the Percent of Four-Year Students Attending Public Institutions of Higher Education in AY 2006 Who Received Tuition Waivers



Source: PERD calculations based on information from the Higher Education Policy Commission.

There are statutory limitations on the total number of undergraduate tuition waivers that can be awarded by the regional institutions. In addition, the tuition revenue that is forgone by the institution may limit institutional aid. WVU Tech was within the statutory requirement of tuition waivers being no more than 10 percent of the institution’s fulltime student enrollment for the fall of the preceding year in which the waiver is awarded.⁹ West Virginia University and Marshall University are exempt from this requirement.

Engineering Students Receive Institutional Aid Proportional to Enrollment

The Legislative Auditor reviewed WVU Tech’s fall and spring semester institutional financial aid awarded to engineering undergraduate students for AY 2007 and AY 2008 in order to determine if WVU Tech was subsidizing engineering students with a greater amount of aid than other WVU Tech students. **In the first year examined, engineering students at WVU Tech comprised 27 percent of the student body, and received 30 percent of the financial aid**

⁹ WVC 18B-10-5(b) (1) caps the number of undergraduate fee waivers at 5 percent of the preceding year’s fulltime fall enrollment. WVC 18B-10-1(l) (5) (F) allows for an additional 5 percent in fee waivers (excluding athletes) to be approved by the institution’s governing board.

awarded by the institution. In the second year, engineering students comprised 28 percent of the student body and received 27 percent of institutional financial aid. In AY 2007, WVU Tech awarded \$1,392,545 to students, with engineering students receiving \$418,423 and other four-year students receiving \$974,122 in institutional aid. In AY 2008, the amount of institutional aid received by engineering students was \$543,052 of the total \$2,013,197 for AY 2008. In that year, four-year students enrolled in other degree programs received institutional aid totaling \$1,470,145. **The Legislative Auditor concluded that the institutional financial aid received by engineering students at WVU Tech did not increase the engineering enrollment at WVU Tech in AY 2007 or in AY 2008.**

Compared to WVU, WVU Tech Engineering Students Receive More Institutional Aid

The Legislative Auditor also compared the number of engineering students receiving institutional aid at the WVU Tech LCN College of Engineering and Sciences and the WVU College of Engineering and Mineral Resources during AY 2008 to determine if either institution's aid assistance was significantly larger and constituted a possible factor in raising engineering enrollment. Within the total engineering enrollment of the two colleges, the percentage of engineering students at WVU Tech receiving institutional aid was lower than at WVU (see Table 2).

While the percentage of engineering students receiving institutional aid was lower at WVU Tech, the average amount of institutional aid awarded to an individual student was greater than at WVU. **Engineering students in AY 2008 at WVU Tech received \$618 more per student in institutional aid than engineering students attending West Virginia University.** Of the 410 engineering undergraduate students enrolled at WVU Tech, 166 students received institutional aid. This was an average of \$3,271 for each aid recipient. By contrast, of the 2,174 undergraduate engineering students at West Virginia University, 1,020 students received an average amount of \$2,653 for AY 2008.

Table 3
AY 2008
Comparison of Institutional Aid
Received by Undergraduate Engineering Students at WVU and WVU Tech

Institution	Undergraduate Engineering Enrollment	Undergraduates Receiving Aid	Percentage Receiving Aid	Total Amount of Aid Awarded	Average Amount Received
WVU Tech	410	166	40%	\$543,052	\$3,271
WVU	2,174	1,020	47%	\$2,706,047	\$2,653

Source: Table 2 developed by PERD from enrollment and institutional aid information received from West Virginia University and WVU Tech.

The Legislative Auditor concluded that within the engineering enrollment at each institution, the percentage of students receiving financial aid was comparable. While WVU Tech showed a greater average amount of institutional financial aid, this is an average and does not reflect actual amounts awarded to individuals. In addition, the average amount was not substantial enough to encourage potential students to apply to WVU Tech.

Conclusion

WVU Tech is struggling due to declining student enrollments and current and projected financial deficits. WVU Tech’s financial situation is dependent on students enrolling, and in order for it to generate enough revenue from student tuition and fees it must add over 700 FTEs, bringing student enrollment **above** the levels of enrollment in the mid-1990s. **Such an increase will be difficult to achieve.** While the number of students from nearby counties enrolling in accredited state engineering programs has remained constant, student enrollments show a shift away from WVU Tech and toward West Virginia University. **This shift in student enrollment must be studied and addressed if the institution is to re-establish financial stability.** The focus at WVU Tech appears to be one of assessing costs, retrenchment and cost-cutting. While these are appropriate measures to take, especially in light of the FY 2007 \$1.2 million deficit, these measures do not address the problem of bringing students onto the campus in Montgomery. In fact, WVU Tech failed to oversee its recruitment, admissions and enrollment process for AY 2009, resulting in disappointing student enrollment and turnover of key personnel. In November 2008, the position of Dean of Enrollment Services had just been filled as the institution entered its recruitment year for AY 2010. **The Legislative Auditor concludes that planning and**

marketing for student recruitment is seriously hampered by the turnover in key personnel. Strong, stable management and leadership at WVU Tech is necessary if the institution is to create the extensive marketing necessary in order to generate an enrollment gain of 60 percent more FTEs than AY 2008. **WVU Tech needs to strongly address student enrollment.** The student admissions office should be given the resources, staffing and managerial oversight necessary to market the college to potential applicants within and beyond the traditional geographic area. Specialized recruiters should be added to recruit new students for the college's engineering and other specialized technical programs. This is important because parents and potential students may not otherwise have enough information to make an informed decision regarding the types of professional engineering, business, sciences and technology degrees offered at WVU Tech. As a division of West Virginia University, WVU Tech should encourage all of its degree programs to continue in creative alliances with WVU to enhance course offerings and develop distance learning to the fullest extent possible.

Recommendations

4. *WVU Tech should prioritize the enrollment of new FTEs for AY 2010 to generate necessary revenue.*
5. *WVU Tech should ensure that its student enrollment functions of admissions and financial aid have adequate resources, including the specialized staff necessary to market individual programs at WVU Tech to prospective applicants.*
6. *WVU Tech should continue to identify and address problems within its student enrollment functions of admissions and financial aid in order to respond to student applicants in a timely manner.*
7. *WVU Tech should evaluate all of its degree programs to determine how each program can benefit from distance learning initiatives and other creative alliances with West Virginia University.*
8. *WVU Tech should evaluate and address the factors contributing to the loss of faculty and other key personnel.*

ISSUE 3: Results of Surveys of WVU Tech, Marshall University and West Virginia University Students

Summary

During the spring semester of AY 2008, the Legislative Auditor surveyed four groups of students from counties in southern West Virginia attending West Virginia University Institute of Technology, West Virginia University and Marshall University. Surveys were electronically transmitted to students between February 1 and February 12, 2008. In-state undergraduate engineering students at Marshall, WVU and WVU Tech were surveyed regarding their choices of institution and engineering program. A separate survey went to the general four-year student population at WVU Tech to determine the factors that went into their decision to attend WVU Tech. The surveys are presented in the following order: 1) WVU Tech general student population, 2) WVU Tech engineering students, 3) WVU engineering students and 4) Marshall engineering students. The response rate for some of the surveys was not statistically significant but the student comments reveal reasons for attending various institutions, and also concerns from students attending WVU Tech.

WVU Institute of Technology General Student Survey

The WVU Tech survey of the four-year student population received 91 responses from 714 students contacted, for a response rate of 13 percent. **Of the respondents, 57 percent commute from home, 19 percent live in housing on campus and 19 percent live in off-campus housing.** The Legislative Auditor posed the following questions to students enrolled for spring semester of AY 2008 at West Virginia Institute of Technology:

WVU Institute of Technology Student Survey Questions

1. *What county was your permanent residence located in at the time you were accepted at West Virginia University Institute of Technology (WVU Tech)?*

The majority of students responding were from Kanawha and Fayette counties. Please see Appendix F.

2. *What is your current major?*

The majority of students responding listed Nursing, Business Management, and Accounting for major areas of study. Please see Appendix F.

3. *Have you changed your major since enrolling at WVU Tech?*

- A. Yes (28)
 - B. No (61)**
4. *What is your current living situation while attending WVU Tech?*
- A. Commute from home (52)**
 - B. On-campus housing (17)
 - C. Off-campus housing (17)
5. *Are you currently receiving a scholarship, tuition waiver, housing waiver, books/supplies waiver or any other form of financial aid that does not have to be reimbursed? Please only include financial aid that is provided by WVU Tech. This does not include Promise scholarships or grants provided by federal or state government.*
- A. Yes (34)
 - B. No (52)
 - C. I do not know (3)
6. *If you answered "Yes" to Question 5: what factor did receiving financial aid from WVU Tech play when enrolling in the institution?*
- A. It was the primary determining factor in attending WVU Tech. (10)**
 - B. It was the only determining factor in attending WVU Tech. (0)
 - C. It was a determining factor, but I considered other factors just as seriously when enrolling at WVU Tech. (12)**
 - D. It was not a determining factor when enrolling in WVU Tech. (16)
7. *Did you give serious consideration to other colleges/universities when selecting an institution of higher education?*
- A. Yes, I gave serious consideration to colleges/universities outside of West Virginia. (8)
 - B. Yes, I gave serious consideration to colleges/universities in the state of West Virginia. (42)
 - C. Both A. and B. (15)
 - D. No, WVU Tech is the only school that I gave serious consideration. (24)
8. *Select the following statements that are applicable in your reasoning for ultimately selecting WVU Tech? (Select all that apply)*
- A. I wanted to live close to my hometown. (36)
 - B. I wanted to commute to campus. (30)
 - C. Going to WVU Tech was less expensive than other institutions. (46)

- D. I preferred WVU Tech's student to teacher ratio as compared to other institutions. (34)
- E. I had friends going to WVU Tech. (33)
- F. My specific field of study was not offered at comparable institutions. (16)
- G. I felt the program that I was looking into was better at WVU Tech as compared to other institutions. (23)
- H. I preferred WVU Tech's campus size as compared to other institutions. (30)
- I. I felt that I would get a better education at WVU Tech. (20)
- J. I preferred WVU Tech's campus. (14)
- K. I was recruited more heavily by WVU Tech officials than other institutions. (8)
- L. Other (please explain) (28)
- M. None of the above. (6)

Comments for Question 8:

1. ROTC program
2. I attended Tech in the late '80's and determined that most of my credits would transfer. While I live basically mid-way between Institute and Montgomery, I decided that not only would most of my credit's transfer, but the commute would be less congested going east vs. west of Charleston after work.
3. My coach transferred here so I also came.
4. I had an instructor at Roane-Jackson Technical Center that had attended West Virginia Tech back in the day and he highly recommended the school. I valued his opinion and went with what he thought would be best for me.
5. I am in the GSC/WVU Joint Nursing program so I really had no choice but to finish up my last two years of nursing school at WVUIT. I wish I would have chosen another route. I am unsatisfied and often times disgusted with the education that I have received while being a student here.
6. Baseball
7. **WVU Tech is a good school and I am happy that I am going there. However, we pay too much money in a maintenance fee or whatever the fee is called for the campus to be so incredibly run down!! A person should not have to dress according to the severe weather for INDOORS! The school has wasted SO much money on heating and cooling problems, it's completely ludicrous for us to keep paying so many fees for campus upkeep and they are throwing our money away.**
8. I was in Morgantown at the main campus until my fiancé decided she wanted to be closer to home so we came to Montgomery.
9. I started my Nursing Career at Glenville State College and this school was part of the joint program.
10. I have been to five colleges in West Virginia; Fairmont State, Wheeling Jesuit University, Marshall, West Virginia University, and now WVU Tech. In the first three, it seemed like I was more of a number than I was a person. At WVU I felt more like I was a person. However, because of personal problems I was forced to withdraw from WVU. I was then told about Tech and that I would get the same major (Athletic Coaching Education) that I would have gotten at WVU but with a better student to teacher ratio. In three semesters I went from a 1.9 cumulative GPA for 4 years to at 3.45 in these past

- three semesters. I love attending this institution. The students are diverse and the faculty knows and cares about you. Leave Tech in Montgomery...where it belongs!
11. It is free because of the Promise (merit scholarship) or I would have left WV.
 12. (I) had to transfer to stay in the WVU/GSC nursing program
 13. I love going to Tech. I have met so many wonderful teachers and students. The teachers are wonderful and very helpful. WVU Tech is the only other college in the state beside WVU that offers my degree. I think it is a very good school and I do not think I would have gotten a better education anywhere else.
 14. WVU Tech has a Bachelors degree in Nursing where State does not. That's why I chose to come here. I thought it would be cheaper than WVU or Marshall. It turns out I was wrong.
 15. WVU Tech's nursing faculty [staff name] was very helpful to me and worked with me since I received my initial nursing degree from a distance learning program. I was not required to take certain classes over as was the case at Marshall.
 16. I was recruited for soccer and offered scholarship money for it. This is the main reason why I came to Tech. I also had a few friends from Canada joining me, therefore making the process of decision much easier. Thank you.
 17. **I needed a scholarship to make college more affordable. I had other colleges offer scholarships for softball but received the most money from Tech so I decided to stay close to home and just go to Tech. The school isn't that bad but I feel that they have problems against their softball team and they don't give us the things we deserve like they do other sports.**
 18. I just recently transferred to WVU Tech because the university I had previously attended did not offer the major I was interested in. Transferring has allowed me to commute from home and save a substantial amount of money on tuition, room, and board, as well as pursue a degree I am very interested in, both of which were major factors in my decision to apply to Tech. Although this is just my first semester, I have enjoyed the experience and am very happy that I made the choice to transfer. The professors are great and the small student to teacher ratio has definitely been an asset in my learning experience.
 19. I am a soccer player and WVU Tech offered me the most money and the size of the campus was a factor.
 20. I got a scholarship to play soccer at WVUIT.
 21. **I came here because at the time the nursing program was very good and now it's next to last in the state. I also wanted to play softball and upon attending here the institution's outlook and funding for that sport has turned out to be a complete joke. I really wish I would have attended another university because any place has to be better than here!!!**
 22. I have friends that have completed the RN to BSN program at WVU Tech and they related that it is a good program.
 23. I am enrolled in the Regents Bachelors Degree program through WVU Parkersburg. I was unable to take any online classes there to further my degree. WVU Tech had classes available that would help me.
 24. Recommendation from Vo-tech Fayette County to speak with [staff name] about financial aid possibilities. [Teacher] at Oak Hill recommended [Tech staff person].

25. Had met some of the professors and was interested to complete my undergrad degree with some of them. Also, WVU Tech offered the only Industrial Relations program in the State.
26. WVU tech is close to where I live.
27. I was at Tech with upward bound program.
28. I work during the day and needed a college offered the classes I need for pre nursing at night or on line.
29. I was recruited for women's basketball, and also I wanted to go away to college.
- 30. If I had it to do over again, I would not choose WVU Tech, I would have attended WVU Charleston campus. The administrative staff at Tech is very disorganized. I have attended several colleges, and Tech by far, is the worse. I have recommended to many friends and coworkers not to apply to Tech. Hopefully the problems the college has will be solved in the near future as the college is valuable to the surrounding communities.**
- 31. I had previously attended West Virginia University and my grades were below average at the end of the semester. Therefore, I was not given another choice by my parents and was forced to come to Tech. My time spent here would be much more enjoyable if the staff was helpful, friendly, or competent. I do not appreciate the fact that this school isn't even comparable to the size of WVU yet WVU can still manage to treat each student like an individual. I would never recommend Tech to anyone, and plenty of people I know have received the same treatment and it has caused them to choose different schools.**
32. I wanted to be away from home (Maryland) and it is easier for me to focus on my work because of the area.
33. The classes and degree can be completed online. I work and take full time hours at WVU Tech. CTE courses are only offered through WVU Tech. Thanks, [Staff name]
34. I needed to build math skills. The pre-algebra classes offered at this institution are helping to prepare me for college level algebra.
35. The classes I needed were available at WVU IT and would transfer to WVU in Morgantown.
36. My mother went here so this is where I wanted to come.
37. I wanted to play soccer.
38. I got a scholarship from WVU Tech.

Engineering Undergraduate Student Surveys

The Legislative Auditor was interested in student choices of engineering programs because the West Virginia University Institute of Technology's LCN College of Engineering and Sciences and the College of Engineering and Mineral Resources at West Virginia University offer the only fully accredited degrees for professional engineers in the state. In addition, WVU is the only engineering program in the state that offers four-year accredited degrees in Aerospace Engineering, Mining Engineering, and Petroleum and Natural Gas Engineering. Marshall University presently offers education in the fields of engineering, technology, and applied sciences and is completing a new \$10 million building to house the engineering program. The

Marshall program will be eligible to apply for accreditation as soon as it graduates its first professional engineering student. **Presently, the only accredited professional engineering degree offered by Marshall is the WVU Tech ABET-accredited Bachelor of Science degree in Civil Engineering given on Marshall University's campus.**

West Virginia Institute of Technology Engineering Survey

The WVU Tech survey of engineering students received 63 responses from 333 engineering students, for a response rate of 19 percent. **Out of those respondents, 28 considered the engineering program at WVU, 12 at Marshall, and 23 considered various out-of-state institutions.** The Legislative Auditor posed the following questions to engineering students enrolled for spring semester of AY 2008 at West Virginia Institute of Technology:

WVU Tech Engineering Student Survey

1. *What county was your permanent residence located in at the time you were accepted at West Virginia University Institute of Technology (WVU Tech)?*

The majority of students responding were from Kanawha and Fayette counties. Please see Appendix G.

2. *What is your current engineering major?*

Please see Appendix G for the number of students responding from each major area of study.

3. *Have you changed your engineering major since enrolling at WVU Tech?*

- A. Yes. (16)
- B. No. (45)

4. *Did you give serious consideration to other colleges/universities when selecting an engineering program?*

- A. Yes. (44)
- B. No. (16)

5. *What other engineering programs did you seriously consider?*

- A. WVU. (27)
- B. Marshall. (12)
- C. Other. (23)*

*MIT, Purdue, Virginia Tech, James Madison University, Ohio State, Virginia Tech, Case-Western Reserve University, Clemson, University of Kentucky, California Technical Institute, Georgia Tech, University Of Virginia, Ohio University, York College Of Pennsylvania, United States Naval Academy, University of Florida,

Virginia Tech, Marshall does not have an engineering program at this time, Bluefield State, Rose-Hulman Institute of Technology, Penn State, Auburn, George Mason University, Ohio State University, Ohio University, DeVry University.

6. *What is your current living situation while attending WVU Tech?*

- A. Commute from home. (18)
- B. On-campus housing. (25)
- C. Off-campus housing. (17)

7. *Are you currently receiving a scholarship, tuition waiver, housing waiver, books/supplies waiver or any other form of financial aid that does not have to be reimbursed? Please only include financial aid that is provided by WVU Tech. This does not include Promise scholarships or grants provided by federal or state government.*

- A. Yes. (30)
- B. No. (29)
- C. I Don't Know. (1)

8. *If you answered "Yes" to Question 7: what factor did receiving financial aid from WVU Tech play when enrolling in the institution?*

- A. It was the primary determining factor in attending WVU Tech. (4)
- B. It was the only determining factor in attending WVU Tech. (0)
- C. It was a determining factor, but I considered other factors just as seriously when enrolling at WVU Tech. (17)
- D. It was not a determining factor when enrolling in WVU Tech. (10)

9. *Select the following statements that are applicable in your reasoning for ultimately selecting WVU Tech?*

- A. I wanted to live close to my hometown. (22)
- B. I wanted to commute to campus. (13)
- C. Going to WVU Tech was less expensive than other institutions. (38)
- D. I preferred WVU Tech's low student to teacher ratio as compared to other institutions. (44)
- E. I wanted an engineering degree where the chances of employment following graduation would be higher. (48)
- F. I had friends going to WVU Tech. (14)
- G. My specific field of engineering study was not offered at comparable institutions. (5)
- H. I felt the engineering program that I was looking into was better at WVU Tech as compared to other institutions. (37)
- I. I preferred WVU Tech's campus size as compared to other institutions. (30)
- J. I felt that I would get a better education at WVU Tech. (44)
- K. I preferred WVU Tech's campus. (9)
- L. I was recruited more heavily by WVU Tech officials than other institutions. (4)

- M. Other (3)
- N. None of the above. (1)

Comments for Question 9:

1. I came to college from a small high school, and I enjoyed the personal interaction I had with my teachers. Tech offered that same smallness and personal attention, so I chose it. I certainly did not choose Tech for the location because Montgomery is an entirely useless town. However, the education factors and Tech's reputation for engineering strongly outweighed my desire for attractions in the surrounding area.
2. I really enjoy the small campus life. I can't say that there aren't any distractions, but in my opinion there are fewer distractions. Tech's professors are very easy to talk to and are very helpful. The engineering program is very in-depth when compared to other schools that my friends from high school attend. I know if I get a degree in engineering from Tech I'll be able to handle any problem in the real world. I am very proud of the fact that the Tech band is coming back. As a member I see the difficulties in dealing with the administration to get questions answered or problems resolved, but just as any other faculty member the director will stop at nothing short of helping out his students.
3. At the time Tech was highly regarded. Now I wish I would have gone elsewhere. I lose at least two professors a semester.
4. WVU tech's good reputation of intelligent and caring engineering professors.
5. **I feel that Tech is a great school with a great engineering program. It is starting to get better at Tech, with the recent renovations and such, however there is still much to be done from the campus being left in disrepair for so long. The pool is perhaps one of the biggest complaints on campus, along with lack of activities and a boring selection of food within the town. Perhaps one day Tech can be restored to its former glory days, sadly that road is filled with many turns.**
6. **With the quality of WVU Tech's engineering program, the enrollment at this institution should be much higher than what it is currently. This is clearly due to campus location, administrative quality, and quality of campus. A change is definitively needed in the future.**
7. WVU-Tech offers the best Civil engineering program in the state; and through its rigorous course work the best theoretical background for an engineer available. Tech specializes in more "bang for the buck".
8. I was asked to play baseball that is where I got a room waiver which was my ultimate decision in attending WVU Tech

West Virginia University Engineering Survey

The Legislative Auditor surveyed undergraduate engineering students from 20 southern counties in West Virginia.¹⁰ The WVU survey had 75 respondents from 280 undergraduate engineering students receiving surveys, for a response rate of 27 percent. **Out of the respondents, 37 stated that they did consider the engineering program at WVU Tech, and**

¹⁰ *Counties requested: Boone, Cabell, Clay, Fayette, Greenbrier, Kanawha, Lincoln, Logan, Mason, McDowell, Mercer, Mingo, Monroe, Nicholas, Pocahontas, Putnam, Raleigh, Summers, Wayne and Wyoming.*

11 applied to WVU Tech. One of the major factors why the engineering students chose WVU over WVU Tech was that WVU's location in Morgantown was considered more appealing than WVU Tech's location in Montgomery. The Legislative Auditor posed the following questions to engineering students enrolled for spring semester of AY 2008 at West Virginia Institute of Technology:

West Virginia University Engineering Student Survey

1. What county was your permanent residence located in at the time you were accepted at West Virginia University?

The majority of students responding were from Kanawha, Putnam and Raleigh counties. Please see Appendix H.

2. Are you currently majoring in Engineering at West Virginia University?

- A. Yes. (73)
- B. No. (2)

3. Did you declare Engineering as your major at the time that you enrolled at West Virginia University?

- A. Yes. (70)
- B. No. (5)

4. Did you consider the engineering program at West Virginia Tech located in Montgomery, West Virginia when you were choosing an institution of higher education to attend?

- A. Yes. (37)**
- B. No. (33)

5. How much consideration did you give West Virginia Tech?

- A. High level of consideration. (6)
- B. Moderate level of consideration. (23)
- C. Minimal level of consideration. (14)

6. Select the following statements that are applicable in your consideration of West Virginia Tech?

- A. I applied at West Virginia Tech. (11)
- B. I requested/downloaded an application from West Virginia Tech. (11)
- C. I visited the West Virginia Tech campus. (23)
- D. I visited the West Virginia Tech web site. (28)
- E. I initiated speaking with West Virginia Tech representatives. (8)
- F. I requested promotional materials from West Virginia Tech. (3)
- G. I received promotional materials from West Virginia Tech, but did not request materials. (17)

- H. West Virginia Tech representatives spoke at my high school. (12)
- I. I met West Virginia Tech representatives at a college fair. (20)
- J. Other (4)
- K. None of the above. (4)

Question 6 Comments:

1. I was offered a wrestling scholarship to Tech, which I considered a great deal, considering I'm majoring in Engineering. But I really just don't like rural places. I'm a city life kind of guy, and I don't think I would have enjoyed Tech very much.
2. Attended Camp STEM twice, eventually came back as a counselor.
3. Attended Camp STEM at West Virginia Tech in 2004 and 2005.
4. When talking about colleges with an engineering faculty member and administrator at an out-of-state engineering school who was familiar with the state, its engineering community (having worked as a consultant for a corporation with locations in the Charleston area), as an administrator at another school, and with my family (having worked with my father) in 2002, he recommended that I should at least consider Montgomery (WVU-IT). If we were having the conversation 10 years earlier, he said he would firmly recommend Montgomery over Morgantown - indicating Montgomery had the better national reputation at that time. However, he was not as certain about which would be better. He favored Montgomery over Morgantown for me based upon its previous reputation and smaller classes - and therefore potential for my professors to know me better. He felt that Montgomery had been successful, in the past, about providing an excellent foundation for later graduate education at other institutions. He emphasized that with the accreditation process the same material is covered no matter where I go to college. It has been under consideration for summer school classes for two years now - as a result of its proximity to Charleston.

7. Select the reasons why you ultimately eliminated West Virginia Tech from consideration as an institution of higher education.

- A. I applied but was not accepted at West Virginia Tech. (0)
- B. West Virginia University or other colleges that I considered had a more appealing campus than West Virginia Tech. (33)
- C. West Virginia University or other colleges that I considered had more appealing dormitories or off-campus housing than West Virginia Tech. (20)
- D. Morgantown, West Virginia or other college towns that I considered were more appealing than Montgomery, West Virginia. (34)
- E. I felt that I would get a better education at WVU. (23)
- F. The specific field of Engineering that I was interested in was not available at West Virginia Tech. (11)
- G. I received a scholarship at West Virginia, and did not receive a comparable scholarship offer from West Virginia Tech. (10)
- H. I had more friends attending WVU. (16)
- I. Extracurricular activities were more appealing at WVU. (20)
- J. Family members attended WVU, and I wanted to go to the same institution. (13)
- K. Social activities were more appealing at WVU. (20)

- L. I am a fan of West Virginia University sports, and wanted to attend school there. (22)
- M. Other (9)

Question 7 Comments:

1. At the time I was accepted into WVU, West Virginia Tech did not offer Mining Engineering.
2. I desired Mechanical AND Aerospace Engineering.
3. WVUIT did not offer a degree in my specific engineering field. However, I would have considered Tech if it would have moved to Charleston and taken advantage of the DOW tech center offer. Montgomery does not provide a higher education environment. This is just an older area trying to hold on to the last thing it's got. Their protest to keep Tech in Montgomery was not for the benefit of the students or their education. All of Tech's programs, including engineering, will continue to decline in Montgomery for this reason. I feel that WVU-Morgantown offers more opportunity.
4. WVU had more state-of-the-art facilities, meaning the computers and software were more up to date and lab equipment was newer.
5. I have been a lifelong Mountaineers fan so that was the main reason I chose WVU. But a major problem I feel with kids my age is Montgomery is not a very appealing place at all. The town is basically a ghost town and it is very depressing. I understand it may be a good school, but if it was [joined] to WVU and came to Morgantown where people actually want to be.
6. I ultimately eliminated WVU-IT because of the decline of the status of the academic status of the institution. The aforementioned faculty member and administrator at an out of state engineering school also commented the following: the state's need for engineers was shrinking (with chemical and coal companies downsizing their workforce in the state and only a handful of employers for other disciplines), it was clear to him that the WV government, like his state's, was cutting funding for higher education even at successful institutions (and he therefore wondered about the quantity of grant research at Montgomery), and wondered about how the other areas of WV Tech had been affected considering the evident decline in its engineering programs. He did note that, if I were to go to Montgomery, it would be a big cultural change from the "big" city of Charleston to the "city" of Montgomery. More importantly, he noted that for me, as a student with learning disabilities, the smaller classes would be helpful but did question the amount of assistance I could receive considering the number of classes taught by adjunct professors and other not full-time tenured faculty who are not as available for students. As an administrator at a comparable school, he imagined I would be better able to succeed at Morgantown - that I would be able to have better access to instructors, by sheer size Morgantown would be more likely to have more available support programs (learning centers, paid/unpaid tutors organized and established, first year experience program, counseling services), and that with more students, there would be more students with learning disabilities, and also with more students there would be more like me. In the years since our conversation, I have only seen the continued decline of WVU-IT - physically and academically - and have been pleased I made the correct choice. Since I was making my college choices based only on my potential for success, I did not consider the following things which for me favor WVU: diversity of students and instructors, more social activities, and a more appealing local community.

7. I talked with several Human Resources representatives from major companies and they said they had not ever hired anyone from WVUIT. I actually went to Tech my second year and did not like it. Engineering is hard, I know, but I felt like I was learning more per class at WVU.

8. I should say that I have known some brilliant engineers that have graduated from WVU Tech. My personal opinion was at the time, and still is, that the town of Montgomery and the school's campus is not only not conducive to creative thought, but is also less of a culturally diverse location. Although WVU (Morgantown) is admittedly lacking in a culturally enriching atmosphere, it was the best choice for an Engineering School in my specific price range.

9. WVU Marching Band

10. I went to WVUIT for two years, but transferred to WVU because WVUIT didn't offer a four year program in Aerospace Engineering. They just offered a 2+2 program with WVU, which is what I did.

Marshall University Engineering Survey

The Marshall University survey received 41 responses from 183 engineering students, for a response rate of 22 percent. **Out of the respondents, 22 stated that they did consider the engineering program at WVU Tech, and 5 applied to WVU Tech.** The major factor why engineering students chose Marshall University over WVU Tech was that Marshall's location in Huntington was more appealing than Montgomery. These students were also surveyed during the spring semester of AY 2008.

Marshall University Engineering Student Survey

1. What county was your permanent residence located in at the time you were accepted at Marshall University?

The majority of respondents came from Cabell County. See Appendix I.

2. Are you currently majoring in Engineering at Marshall University?

A. Yes. (31)

B. No. (8)

3. Did you declare Engineering as your major at the time that you enrolled at Marshall University?

A. Yes. (26)

B. No. (13)

4. Did you consider the engineering program at West Virginia Tech located in Montgomery, West Virginia when you were choosing an institution of higher education to attend?

A. Yes. (22)

B. No. (10)

5. How much consideration did you give West Virginia Tech?

- A. High level of consideration. (6)
- B. Moderate level of consideration. (8)
- C. Minimal level of consideration. (13)

6. Select the following statements that are applicable in your consideration of West Virginia Tech?

- A. I applied at West Virginia Tech. (5)
- B. I requested/downloaded an application from West Virginia Tech. (5)
- C. I visited the West Virginia Tech campus. (9)
- D. I visited the West Virginia Tech web site. (17)
- E. I initiated speaking with West Virginia Tech representatives. (5)
- F. I requested promotional materials from West Virginia Tech. (5)
- G. I received materials from West Virginia Tech, but did not request materials. (6)
- H. West Virginia Tech representatives spoke at my high school. (2)
- I. I met West Virginia Tech representatives at a college fair. (6)
- J. Other. (5)
- K. None of the above. (1)

Question 6 Comments:

1. I did not consider going to West Virginia Tech, I was set on going to Marshall.
2. Both my sister and father are WVUIT alums (one is an EE the other a CE). Both of them had much to say about Tech and what it had.
3. Brother went there to finish his BS in Mechanical Engineering
4. I considered WV Tech because at the time I started Marshall I would have to transfer to a four year engineering school in order to complete my degree, and WV Tech was the closest school to home.
5. I attended camp STEM the summer before and received promotional material there.
6. I heard that West Virginia Tech had the best engineering program in the state.

7. Select the reasons why you ultimately eliminated West Virginia Tech from consideration as an institution of higher education.

- A. I applied but was not accepted at West Virginia Tech. (1)
- B. Marshall or other colleges that I considered had a more appealing campus than West Virginia Tech. (15)
- C. Marshall or other colleges that I considered had more appealing dormitories or off-campus housing than West Virginia Tech. (6)
- D. Huntington, West Virginia or other college towns that I considered were more appealing than Montgomery, West Virginia. (17)
- E. I felt that I would get a better education at Marshall. (7)

- F. The specific field of Engineering that I was interested in was not available at West Virginia Tech. (0)
- G. I received a scholarship at Marshall, and did not receive a comparable scholarship offer from West Virginia Tech. (3)
- H. I had more friends attending Marshall. (11)
- I. Extracurricular activities were more appealing at Marshall. (8)
- J. Family members attended Marshall, and I wanted to go to the same institution. (4)
- K. Social activities were more appealing at Marshall. (9)
- L. I am a fan of Marshall Sports, and thus wanted to attend school there. (4)
- M. Other. (9)

Question 7 Comments:

1. I did not want to move or make an extra long commute.
2. I'm from Milton, which is 20 miles away from Marshall. Whereas Montgomery is considerably further. My family lives here and I never considered WV Tech as an institution for me.
3. I am no longer enrolled at Marshall University. I applied for WV Tech and am now currently enrolled. I felt that the Faculty at Marshall University acted in a biased and prejudiced manner against me. I am convinced that the Faculty and Staff at Marshall University are concerned with aiding and assisting only a few select students that fit the mold of what they consider to be 'ideal' Engineering graduates. I am a non-traditional student and I do not fit this mold. My grades in the Engineering program at Marshall University consisted of all A's and B's. However, I strongly believe that GPA makes no difference at Marshall University. So after repeated attempts to obtain a resolution, I felt there was no other recourse but to transfer. I am currently enrolled at WV Tech and plan to graduate in December 2008. The Faculty and Staff at WV Tech are very enthusiastic about my enrollment and I no longer fear that my professional development is in jeopardy. Thank You.
4. As far as I knew and still know, Tech is dying. The school was a great place about 20-30 years ago, but has started to stagnate. I would have loved to go to Tech, but I got the impression from family that had attended and faculty that had left Tech that the school was in a downhill spiral. I decided to go to Marshall because it seemed to me that MU was basically acquiring Tech for itself. So, in a sense I felt like I was getting the best of Tech by going to MU instead.
5. I can attend Marshall for two years while I continue to live at home, after which time I will transfer to either WVU or WV Tech, as Marshall does not have a degree in my field of interest.
6. Live closer to Marshall.
7. I really do think that WVU Tech has good programs but the campus really isn't that great and the facilities are so-so. I hope now since WVU owns it that the area will become more developed.
8. Changed my major to Computer Science and stayed here to live closer to home.
9. I did not want to leave the Huntington area if I did not have to. Being able to take advantage of the WV Tech program at Marshall was most advantageous to me.

Conclusion

The Legislative Auditor surveyed students to determine what factors went into the choice to attend WVU Tech. Engineering students at WVU Tech, WVU and Marshall were surveyed in addition to the general four-year enrollment at WVU Tech. WVU Tech engineering students expressed satisfaction with the small size of the institution and the quality of education in their specific field of study. However, both engineering students and other students at WVU Tech expressed concerns with student interaction with the administration of the institution, concerns with the softball program, the closed in-door swimming pool, the maintenance problems in the buildings and the quality of student life as it is impacted by the limitations of the town of Montgomery. In addition, nursing students expressed unhappiness with the nursing program at WVU Tech. Engineering students attending other institutions chose other institutions based on their location and perceived qualities of the program at WVU Tech versus their chosen program and the sizes of the respective institutions. It appears from the Legislative Auditor's survey that WVU Tech should build on its engineering college's strengths and reputation and establish its niche as a small institution that can benefit the serious student. In Issues 1 and 2, the Legislative Auditor has presented recommendations that address the majority of the problems mentioned by students.