The Dawn for a New Era for Higher Education

Mirta Martin and Jacob Abrams

Colleges and universities cannot immunize themselves against COVID-19 by simply shutting their gates and throwing away the key, nor can they claim ignorance of the broader social and economic storms impacting their students. Rather, institutions of higher education must embrace their core mission to educate and improve the lives of their students. In a Fall 1821 letter from the Rector of the University of Virginia, Thomas Jefferson, wrote, “we fondly hope that the instruction which may flow from this institution...by advancing the minds of our youth with the growing science... and elevating the views of our citizens generally to the practice of the social duties, and the functions of self-government, may ensure to our country the reputation, the safety and prosperity, and all the other blessings which...result from the cultivation and improvement of the general mind.” At the turn of the twentieth century, education reformer John Dewey (Dewey 1900) similarly contends that “All that society has accomplished for itself is put, through the agency of the school, at the disposal of its future members. All its better thoughts of itself it hopes to realize through the new possibilities thus opened to its future self”. The precedents of history thus demand that higher education not shrink from the needs of the times, but rise to meet them.

The times at present are indeed unprecedented. The current pandemic has claimed over half a million lives and infected over 24 million people around the world (Hopkins 2020). In the United States alone, the Centers for Disease Control now estimates that between 196,000 and 207,000 people will be lost to the virus by September 19th, 2020 (CDC 2020). A Harvard study suggested that waves of social

M. Martin (✉) · J. Abrams
Fairmont State University, Fairmont, WV, USA
e-mail: Mirta.Martin@fairmontstate.edu

J. Abrams
e-mail: Jacob.Abrams@fairmontstate.edu

distancing may be necessary through at least 2022 in order to combat the virus's spread and lessen its toll on the human population (HSPH 2020). At the same time, economies worldwide have been ravaged. A Reuters poll found that by March 27, 2020, one in four adults had been laid off or furloughed in the United States, and the World Bank more recently concluded that the globe will plunge into a Recession not seen since World War II (Kahn 2020; Worldbank 2020). In other words, lives and livelihoods will continue to be lost as a result of the pandemic for the foreseeable future.

Similar patterns are emerging at the local level. The University of Texas COVID-19 Modeling Consortium (2020) projects that West Virginia will experience anywhere from 5 to 20 deaths per day by mid-August. As of this writing, West Virginia has one of the highest rates of transmission of COVID-19 in the country (Silverman 2020; Krieger 2020). Though there are signs of improvement in economic conditions, the June unemployment rate in West Virginia was double (10%) than it was in January of 2020 (5%); from March to April, over half of all leisure and hospitality sector jobs were lost, and less than half of those jobs have returned to the State thus far (US Bureau of Labor Statistics 2020).

Additional complications present themselves: West Virginia's population, including its younger citizens, are particularly vulnerable to experiencing severe, even fatal, outcomes from the virus. This is particularly notable, as the United States consistently ranks among the wealthiest countries with highest rates of obesity, diabetes, heart disease, chronic lung disease, and disability in general (Woolf and Aron 2013). A study reported by US News and World Report in May ranked West Virginia as the state with a population most vulnerable to COVID-19, with two out of five people in 52 of West Virginia's 55 counties having one or more risk factors (Davis 2020). West Virginia has the highest prevalence of obesity, cardiovascular disease, chronic obstructive pulmonary disease (COPD), and arthritis in the country, the second highest rate of diabetes, and the second highest percent of adults who smoke cigarettes or use smokeless tobacco frequently (WV DHHR 2020). In 2017 alone, West Virginia ranked 8th in the United States for deaths from influenza and pneumonia, with mortalities almost 4% points above the national influenza and pneumonia fatality rate that year (WV DHHR 2021). Among high school students, the national *High School Youth Risk Behavior Survey* reveals that almost 1 out of 4 adolescents report having asthma, 1 out of 5 students indicate they are obese, and more than 1 out of 3 students note having three or more health conditions OPA 2019). As concerning, one fifth of adults and one fourth of children live in poverty throughout West Virginia (Talk Poverty 2018). In fact, in 2018, the State again ranked first in the United States for the number of people age 18–24 who are neither employed nor are pursuing an educational credential, and last in the country for the percent of its population (a little over 33%) who have a college degree (Talk Poverty 2018).

What does this mean for higher education in West Virginia and beyond? It means that universities nationwide must endeavour to address the barriers to their students' safety and wellbeing, and in doing so, they may paradoxically ameliorate the enrolment trends already negatively impacting the outlook of higher education for decades. According to surveys from Student Experience at a Research University Consortium,

only 1% of respondents throughout the United States indicated that they planned not to return to a research university to continue their education as a result of COVID-19, suggesting that enrolment declines for returning students at larger institutions may not be severe (Jaschik 2020). Indeed, an analysis from the National Student Clearinghouse of actual nationwide enrolment data from Spring 2020 semester found that enrolment patterns at institutions across the United States were consistent with those seen prior to the pandemic, and universities in States hardest hit by the pandemic over the Summer, such as Georgia and Texas, actually reported record-high summer course enrolments (NSC Blog 2020; Zalaznick 2020; Johnson 2020). With respect to the current Fall semester, another nationwide survey conducted by McKinsey and Co. found that total full-time enrolment for baccalaureate degree-seeking students entering higher education straight out of high school will probably remain relatively unchanged from previous years during the Fall, but would likely experience overall enrolment shifts to the benefit of many public institutions; within the group of students surveyed, 1 out of 5 had changed their first choice school to an institution closer to their home with cheaper tuition (Hayoung et al. 2020).

The increased sensitivity to cost, and the comfort—indeed the mandate in some areas—of staying close to home will affect enrolment patterns nationwide. Already, students appear to be resisting high or downright exorbitant tuition prices at private institutions, regardless of the prestige or brand-name recognition of the institution. Many students at institutions such as Rutgers, Harvard, the University of Chicago, Chapman University, etc. have already expressed concerns, even to the point of filing lawsuits, at paying large non-refundable tuition prices for a college education delivered through a “glorified Skype” session (Hubler 2020; Hendrickson 2020). In fact, Harvard’s yield rate declined 3% by late June of 2020, and over one out of five freshmen, rather than experience Harvard virtually, requested a deferral of the Fall admission until the Spring or Fall 2021 (Theharvardgazette 2020; Bikales and Chen 2020). Indeed, some private colleges are reporting up to 20% declines in enrolment as of the beginning of the Fall 2020 semester, while many public institutions in June of 2020 were reporting relatively stable, if not augmented, anticipated enrolment for Fall 2020 (Jaschik 2020).

Prior to the pandemic, enrolment trends in West Virginia were already an ever-growing concern for many, as the college-going rate stagnated, the number of adults returning to seek a college-degree profoundly weakened. The number of high school seniors subsequently enrolling at a college or university immediately following graduation was 10% points less in 2018 than in 2009, while students older than 25 left higher education by almost a third over the past 4 years (Treadway 2019). Further, 200,000 people are expected to move out of the State by 2040, and NCES anticipates the number of 2027 high school graduates from West Virginia, Ohio, and Pennsylvania to decline by at least 5% relative to 2013 (Hussar and Bailey 2019).¹

¹ For an interactive map provided by the Demographics Research Group, Weldon Cooper Center for Public Service, University of Virginia, please see: <https://demographics.coopercenter.org/united-states-interactive-map> (27.08.2020).

However, at least some of this decline may be attributable to the improvement in economic conditions experienced across and around the State prior to COVID-19. A paper from the National Bureau of Economic Research (NBER) suggests that as much as 30% of nationwide college enrolment declines experienced prior to the Great Recession are attributable to the growth in wealth experienced during the housing boom, as many potential students concluded that the opportunity costs of not engaging in an expanding job market at the time were too great (Charles et al. 2015). Similarly, a study from the Dean of the Harvard Graduate School of Education suggests that college enrolment grew greatly, particularly among two-year degree programs, during periods of high unemployment at the height of the Great Recession (Long 2014).

As such, the current economic conditions in the State and across the country may actually induce enrolment from students who would have otherwise not done so, particularly given the necessary expansion of distance learning options as a result of COVID-19. The number of students taking at least 1 online class in the United States increased from 1 in 10 in 1999 to almost 1 in 3 by 2015, to the detriment of many public institutions which did not adapt this option into their educational delivery methods (Hobson and Puruhito 2018). While public in-state student enrolment declined 5% from 2010 to 2018, enrolment in online-only degree programs at private for-profit universities—institutions that charged almost three times as much in 2019–2020 tuition as their public in-state counterparts—increased by 7% for undergraduates and a whopping 28% for graduate students from 2012 to 2016 (College Board 2019; NCES 2020; Howarth and Stifler 2018). COVID-19 therefore offers public institutions a reprieve to enrol both students from regions outside of the State and those within West Virginia who would have otherwise pursued online learning in the for-profit sector, thus expanding the types of students institutions can reach, such as those with young children or those older adults who left higher education previously to engage in occupations that precluded enrolment on a full-time schedule. Moreover, online, virtual, hybrid, and distance forms of learning have the advantage of limiting the density and physical contact of students on-campus, thereby reducing the risk of viral spread, while allowing the institution to service students who may rely on housing and dining on-campus to compensate for food and housing insecurity at their homes (Hamidi et al. 2020).

However, there is a price to pay for such educational delivery. A late March of 2020 poll of students conducted by EDUCAUSE revealed that students' strong, negative experiences related primarily to the accessibility of the physical tools required in order for distance learning to take place, such as wi-fi, and the availability of resources and services that were previously more easily accessible to them outside of the physical classroom, such as mental health counselling, career services, health clinics, etc. Indeed, a report from New America in April of 2020 found that West Virginians on average pay higher costs for slower connectivity than most other areas of the country, and a US News and World Report metric similarly concluded in 2017 that West Virginia had the second-worst infrastructure for internet availability in the country (Park 2020). While many institutions may be able to successfully address the availability of services like counselling in online mediums throughout the coming

semesters, the precarious socioeconomic status of many students makes it difficult for institutions already struggling to keep costs contained to provide quality services to those students absent outside financial support.

As such, though a possibility for improvements in enrolment through the type of educational delivery methods offered to students is heightened, higher education in West Virginia faces a cost calamity as a result of COVID-19. Moody's already projects the State to experience anywhere from the 13th–5th worst budget shortfall in the country due to COVID-19 (Kablerstaff 2020). Even prior to the pandemic, a report from the National Conference of State Legislatures showed that though state appropriations to higher education improved by 1.6% across all 50 States from 2014 to 2018, West Virginia experienced a massive decline—20.6%—the largest experienced in the country during the same time period (Seltzer 2018). Moreover, in 2019, West Virginia had a 3-year average student loan default rate of 17%, meaning that even if augmented costs are absorbed by students via increases in tuition and fees, there is a likelihood that those expenses would be passed to loans that many students (possibly 1 of 5) would not repay, and that such action would hinder enrolment, as studies have shown that up to 2 out of every 5 high school students are loan-averse (Federal Student Aid 2020; Boatman et al. 2017). Without infusion of revenue from other sources, it is possible that West Virginia's institutions will face financial consequences up to and including closure in the future.

Nationally, things are not much better. By late July, over 15,000 employees at universities and colleges across the country were no longer employed by those institutions, with over 220 schools laying off staff and faculty as a result of profoundly severe budget shortfalls (Sultan 2020). Indeed, a preliminary analysis from the Brookings Institute found that financial risks posed by the pandemic were practically universal, with Baccalaureate and Master's degree-granting institutions facing more risks than those faced by doctoral and Historically Black Colleges and Universities (HBCUs) for the upcoming academic year (Startz 2020). Moreover, colleges and universities have also begun to cut degree programs, with one university removing 39 programs from their rosters (Dickler 2020). Indeed, the 2020 *Inside Higher Ed's* Survey of College and University Business Officers (CBOs) found that over half of all respondents indicated that they were not confident in their institution's financial stability over the next five years, with CBOs at private institutions expressing less confidence than those over public colleges and universities (Lederman 2020). In the face of COVID-19, it is not necessarily declining enrolment which threatens survival through the pandemic, but the financial costs of adapting to it.

West Virginia's trends can be generalized to the trends currently at play, not only in the United States, but worldwide. We have seen institutions close their doors due to declining enrolments and poor financial conditions. We find ourselves in the darkest, longest night for higher education. It is anticipated that smaller colleges will continue to fail—accelerated by the pandemic (McLaughlin 2020). But, higher education will awaken and survive. The opportunities presented by this pandemic, to reinvigorate the local and community-based missions of higher education and to transform the educational experience to meet students' needs regardless of where they are, are

paramount. As such, from the scourge of this pandemic will arise new methods of content delivery and new disciplines which will guide the next generation of leaders to ushering forth a dawn for a new era in higher education.

References

- Bikales, J., & Chen, K. (2020). Over 20 Percent of Harvard Undergrads Do not Intend to Enroll in Fall 2020 (07.08.2020), Retrieved from: www.thecrimson.com/article/2020/8/7/harvard-coronavirus-fall-enrollment-numbers (28.08.2020)
- Boatman, A., Evans, B., Soliz, A. (2017). Understanding Loan Aversion in Education: Evidence from High Schools Seniors, Community College Students and Adults, *AERA Open* vol.3 (1), 1-16, <https://doi.org/10.1177/2332858416683649>
- CDC (Centers for Disease Control and Prevention) (2020). Coronavirus Disease 2019 (COVID-19), Retrieved from: www.cdc.gov/coronavirus/2019-ncov/covid-data/forecasting-us.html (28.08.2020)
- Charles, K.K.; Hurst, E. Notowidigdo, M. (2015). Housing Booms and Busts, Labor Market Opportunities, and College Attendance, *NBER Working Paper Series, Working Paper 21587*, National Bureau of Economic Research, Retrieved from: www.nber.org/papers/w21587.pdf (28.08.2020)
- College Board (2019). Trends in College Pricing 2019, *Trends in Higher Education Series*, Retrieved from: <https://research.collegeboard.org/pdf/trends-college-pricing-2019-full-report.pdf> (28.08.2020).
- Davis, E. (2020). The States Most Vulnerable to COVID-19, U.S. News & World Reports (12.05.2020), Retrieved from: www.usnews.com/news/best-states/articles/2020-05-12/a-new-study-unveils-the-states-most-vulnerable-to-the-coronavirus (28.08.2020)
- Dewey, J. (1900). The School and Society. Being three lectures, Retrieved from: www.gutenberg.org/files/53910/53910-h/53910-h.htm#Page_19 (28.08.2020)
- Dickler, J. (2020). Colleges cut academic programs in the face of budget shortfalls due to Covid-19, *CNBC* (23.06.2020), Retrieved: www.cnn.com/2020/06/23/colleges-cut-programs-in-face-of-budget-shortfalls-due-to-covid-19.html (28.08.2020)
- Federal Student Aid (2020). Official Cohort Default Rates for Schools, Retrieved from: www2.ed.gov/offices/OSFAP/defaultmanagement/cdr.html (28.08.2020)
- Hamidi, S.; Sabouri, S., & Ewing, R. (2020). Does Density Aggravate the Covid-19 Pandemic, Early Findings and Lessons for Planners, *Journal of the American Planning Association*, <https://doi.org/10.1080/01944363.2020.1777891>
- Hayoung, K; Krishnan, C., & Law, J. (2020). COVID-19 and US higher education enrolment: Preparing leaders for fall, McKinsey & Company (21.05.2020), Retrieved from: www.mckinsey.com/industries/public-and-social-sector/our-insights/covid-19-and-us-higher-education-enrollment-preparing-leaders-for-fall (28.08.2020)
- Hendrickson, M. (2020). US Chicago announces tuition freeze, but students still threaten payment strike, *Chicago Sun Times* (16.04.2020), Retrieved from: <https://chicago.suntimes.com/education/2020/4/16/21222787/university-of-chicago-tuition-freeze-strike-students-coronavirus-covid-19> (28.08.2020)
- Hobson, T.D., & Puruhito, K.K. (2018). Going the distance: Online course performance and motivation of distance-learning students. *Online Learning*, 22(4), 129-140.
- Howarth, R., & Stifler, L. (2019). *The Failings of Online For-Profit Colleges: Findings from Student Borrower Focus Groups*, The Brookings Economic Studies, Retrieved from: www.brookings.edu/wp-content/uploads/2019/03/The-Failings-of-Online-For-profit-Colleges.pdf (28.08.2020)
- HSPH (Harvard School of Public Health) (2020). Intermittent social distancing may be needed through 2020 to manage COVID-19, Retrieved from: www.hsph.harvard.edu/news/hsph-in-the-news/intermittent-social-distancing-may-be-needed-through-2022-to-manage-covid-19/ (28.08.2020)

- Hubler, S. (2020). As Colleges Move Classes online, Family rebels against the Coast, *textitNew York Times*, (15.08.2020), Retrieved from: www.nytimes.com/2020/08/15/us/covid-college-tuition.html (28.08.2020)
- Hussar, W., & Bailey, T. (2019). Projections of Education Statistics to 2027, Retrieved from: <https://nces.ed.gov/pubs2019/2019001.pdf> (28.08.2020)
- Jaschik, S. (2020). Survey: 90% of Students Will Return to Research Universities, *Inside Higher Ed* (18.06.2020), Retrieved from: www.insidehighered.com/quicktakes/2020/06/18/survey-90-students-will-return-research-universities (28.08.2020)
- Jaschik, S. (2020). Swill Students Show up at Private Colleges?, *Inside Higher Ed* (24.08.2020), Retrieved from: www.insidehighered.com/admissions/article/2020/08/24/will-students-show-private-colleges (28.08.20 20)
- Jefferson, T. (1821). *From the University of Virginia Board of Visitors to Literary Fund Bord*, 29 November 1821, Retrieved from: <https://founders.archives.gov/documents/Jefferson/98-01-02-2460> (28.08.20 20)
- John Hopkins (Coronavirus Resource Center) (2020). COVID-19 Dashboard by CSSE, Retrieved from: <https://coronavirus.jhu.edu/map.html> (28.08.2020)
- Johnson, J. (2020). Texas A&M Summer Enrollment Increases 18 Percent, *Texas A&M Today* (03.08.2020), Retrieved from: <https://today.tamu.edu/2020/08/03/texas-am-summer-enrollment-increases-18-percent/> (28.08.2020)
- Kabler Staff, P. (2020). Moody: Coronavirus Impact will send WV revenue collection plunging, *Charleston Gazette-Mail* (28.04.2020), Retrieved from: www.wvgazettemail.com/coronavirus/moody-coronavirus-impact-will-send-wv-revenue-collection-plunging/article_5d464b0f-6c9a-5845-96a0-a00ca0d944a5.html (28.08.2020)
- Kahn, C. (2020). Almost one in four Americans lost job or furloughed because of coronavirus, poll finds, *Reuters* (27.03.2020), Retrieved from: www.msn.com/en-us/money/markets/almost-one-in-four-americans-lost-job-or-furloughed-because-of-coronavirus-poll-finds/ar-BB11OwCc?&ocid=spartanntp (28.08.2020)
- Krieger, M. (2020). R_t (effective reproduction rate) COVID-19, Retrieved from: <https://rt.live/> (28.08.2020)
- Lederman, D. (2020). Covid-19's Forceful Financial Hit: A Survey of Business Offices, *Inside Higher Ed* (10.07.2020), Retrieved from: www.insidehighered.com/news/survey/covid-19s-forceful-financial-hit-survey-business-officers (28.08.2020)
- Long, B. T. (2014). The Financial Crisis and College Enrollment: How Have Students and Their Family Responded? In: J. Brown and C. Hoxby (eds.), *How The Financial Crisis and Great Recession Affected Higher Education*, University of Chicago Press (pp. 209-233), Retrieved from: www.nber.org/chapters/c12862.pdf (28.08.2020).
- McLaughlin, K. (2020). The coronavirus could force smaller liberal arts and state colleges to close forever, *Insider* (26.04.2020), Retrieved from: www.insider.com/smaller-colleges-may-never-reopen-because-of-the-coronavirus-2020-4 (28.08.2020)
- NCES (National Center for Education Statistics), Undergraduate Enrollment, Retrieved from: https://nces.ed.gov/programs/coe/indicator_cha.asp (28.08.2020)
- NSC Blog (2020), New Research Center Report Shows COVID-19 Effects on Post-Secondary Enrolment (30.06.2020), Retrieved from: www.studentclearinghouse.org/nsblog/new-research-center-report-shows-covid-19-effects-on-postsecondary-enrollment/ (28.08.2020)
- OPA (US Department of Health and Human Services, Office of Population Affairs) (2019), Adolescent Health, Retrieved from: www.hhs.gov/ash/oah/facts-and-stats/national-and-state-data-sheets/adolescent-physical-health-and-nutrition/west-virginia/index.html (28.08.2020)
- Park, C (2020). The Cost of Connectivity in West Virginia, *New America* (1.04.2020), Retrieved from: www.newamerica.org/oti/reports/cost-connectivity-west-virginia/ (28.08.2020)
- Seltzer, R. (2020). 'Anemic' State Funding Growth, *Inside Higher Ed* (22.01.2018), Retrieved from: www.insidehighered.com/news/2018/01/22/state-support-higher-ed-grows-16-percent-2018 (28.08.2020)

- Silverman, H. (2020). West Virginia has highest rate of transmission of Covid-19 in the country, state official says (10.07.2020), Retrieved from: https://edition.cnn.com/world/live-news/coronavirus-pandemic-07-10-20-intl/h_2e9566af310be24a81505350dd785f0c (28.08.2020)
- Startz, D. (2020). University finances and COVID-19: Different Schools, Different Risks, *Brookings* (18.06.2020), Retrieved from: www.brookings.edu/blog/brown-center-chalkboard/2020/06/18/university-finances-and-covid-19-different-schools-different-risks/ (28.08.2020)
- Sultan, Z. (2020). Colleges Consider Layoffs as COVID-19 Wreaks Financial Havoc, *U.S. News and World Report* (27.07.2020), Retrieved from: www.usnews.com/news/education-news/articles/2020-07-27/colleges-move-to-lay-off-faculty-as-covid-19-decimates-budgets (28.08.2020)
- Talk Poverty (2018). West Virginia, Retrieved from: <https://talkpoverty.org/state-year-report/west-virginia-2018-report/> (28.08.2020)
- The Harvard Gazette (2020). Class of 2024 yield drops marginally (26.06.2020), Retrieved from: <https://news.harvard.edu/gazette/story/2020/06/covid-19-concerns-drop-class-of-2024-yield-by-3-percent/> (28.08.2020)
- The University of Texas COVID-19 Modeling Consortium (2020). COVID-19 Mortality Projections for US States, Retrieved from: <https://covid-19.tacc.utexas.edu/projections/> (28.08.2020)
- The World Bank (2020). COVID-19 to Plunge Global Economy into Worst Recession since World War II, press release (08.06.2020), Retrieved from: www.worldbank.org/en/news/press-release/2020/06/08/covid-19-to-plunge-global-economy-into-worst-recession-since-world-war-ii (28.08.2020)
- Treadway, C. (2019). Enrollment Report 2019, West Virginia Higher Education Policy Commission (5.12.2019), Retrieved from: www.wvhepc.edu/wp-content/uploads/2019/12/HEPC_EnrollmentReport_FINAL_5DEC2019.pdf (28.08.2020).
- US Bureau of Labor Statistics (2020). Economy at a Glance – West Virginia, Retrieved from: www.bls.gov/eag/eag.wv.htm (28.08.2020)
- Woolf, S.H., & Aron, L. (eds). (2013). *U.S. Health in International Perspective: Shorter Lives, Poorer Health*. Washington (DC): National Academies Press (US); 2013. Summary. Retrieved from: www.ncbi.nlm.nih.gov/books/NBK154469/ (28.08.2020)
- WV DHHR (West Virginia Department of Health and Human Resources) (2020), Fast Facts / Data reports, Retrieved from: https://dhhr.wv.gov/hpcd/data_reports/pages/fast-facts.aspx (28.08.2020)
- WV DHHR (West Virginia Department of Health and Human Resources. Influenza and Pneumonia Fact Sheet, Retrieved from: www.wvdhhr.org/bph/hsc/pubs/other/Influenza_and_Pneumonia_Fact_Sheet/2017_Influenza_and_Pneumonia_Fact_Sheet_DHHR.pdf (28.08.2020)
- Zalaznick, M. (2020). More colleges breaking summer enrolment records, *University Business* (29.06.2020), Retrieved from: <https://universitybusiness.com/summer-enrollment-records-college-admissions-online-learning-covid/> (28.08.2020)

Mirta Martin is the President of Fairmont State University in West Virginia. Dr. Martin's career involves extensive work in both the public and private sectors where she served in various academic and industry executive roles. She has received numerous awards, among which are: 2020 West Virginia Inspiring Women; 2019 West Virginia Educator of the Year; The Humanitarian Award for Academic Excellence; and The Presidential Volunteer Service Award awarded by the President of the United States.

Jacob Abrams is the Director of Institutional Research and Effectiveness at Fairmont State University. Mr. Abrams previously served as a Research Associate for the Harvard-Smithsonian Center for Astrophysics. He is a summa cum laude, Phi Beta Kappa graduate of the College of William and Mary, where he also completed a Visiting Studentship at Oxford University. He holds an EdM in Higher Education from the Harvard Graduate School of Education.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.