

Introducing cannabis education on a college Campus in 2021

The case of Medgar Evers College

Alicia E. Reid
Micah E. S. Crump
Vikiana R. Clement
JoAnn D. Rolle

Medgar Evers College, New York, U.S.

Abstract

This paper illuminates how introducing cannabis on a college campus parallels the transition of cannabis in U.S. society moving from legitimate to illegal to legalization to corporate to academia. Using a case study methodology, the purpose of this research is to examine how a college or university might respond to a new industry opportunity. In response to a campus charge, student demand and industry demand, a small college located in the heart of Brooklyn, New York City answered a call to advocate on behalf of its student and community members. Over a period of two-years, a new cannabis education and programs initiative was introduced to the campus within the backdrop of such actions being viewed as controversial. Introduction and approval of cannabis education on a campus required critical campus stakeholders to undergo change-shaping events over time that led to shifts in their attitudinal thinking.

Throughout the two-year period, new courses were co-created by campus faculty and leading cannabis voices in the U.S. that included industry, investors, academics, and alumni who had accumulated cannabis expertise. The newly created rigorous and science-heavy curriculum spanned multiple academic departments and offering cross-listed courses, certificates, scholarships, industry-academic research, entrepreneurial assistance, various types of advocacies, and internship and employment pipelines. This study contributes to the body of higher education literature by mapping out steps institutions of higher learning might take to garner broad campus support for cannabis education.

Key words

Cannabis education
College campus
Medgar Evers College
Social equity
Legislating cannabis
Cannabis science
Cannabis research

Corresponding author: Alicia E. Reid

Email address for the corresponding author: alreid@mec.cuny.edu

The first submission received: 15th July 2021

Revised submission received: 16th February 2022

Accepted: 25th February 2022

Introduction

Medgar Evers College - *Raison D'être*

Medgar Evers College, since its founding in 1970, remained charged with providing educational, workforce development, and economic uplift opportunities primarily to economically disadvantaged Brooklyn, New York, and surrounding community members. Essential to that charge is that the campus exists as a key watchdog for its community. For many decades, academic institutions, philanthropic organizations, and governmental bodies and policymakers have expended great efforts to improve the sociopolitical and economic standing of black communities. Yet black metrics such as unemployment rate, income, wealth, education attainment, health and healthcare, incarceration, morbidity, mortality, career

advancement, business ownership, and many others remain dismal relative to all other racial and ethnic groups in the United States (Crump, Hills, & Hardin, 2018; Crump et al., 2015; Singh, Knox, & Crump, 2007; Lee et al., 2021). Black schools and colleges, municipalities, and businesses find themselves grossly under-resourced and undercapitalized and therefore most often caught up in a vicious cycle of wanting to do more, while not being able to (Kedia, Clampit, & Gaffney, 2014).

Yet, members of the U.S. black population, like other black populations worldwide, represent a hugely undervalued and untapped resource that could provide much relief to many of society's perils. Organizations that set out to serve black community advancement such as black churches, schools, recreation centers, salons, barber shops, healthcare providers, and others are extremely and intimately aware of these struggles that suppress black uplift. Medgar Evers College is among a small handful of these institutions that are trusted by the black communities they serve, and that both understand and formally educate them (Crump, Hills, & Hardin, 2018; Crump, 2013).

The historical and contemporary treatment of cannabis in US society, from producers, sellers, purchasers, and users, has created a nexus of conflict and opportunity whereby people the campus serves stand much to unfairly lose amid enormous and explosive industry growth and opportunity. Many of these members are positioned as mere sidelined participants relegated to observe others revel and blossom. The campus was therefore compelled to intervene on behalf of those it served to redirect looming trajectories.

Medgar Evers College consequently devised an innovative approach to uncover and capture the types of untapped knowledge awaiting discovery within communities of disenfranchised blacks. The approach consists of creating an innovative academic program in cannabis that promises to bring together a broad array of people and institutions to enact broad and positive change on many of the dismal social and economic justice metrics described above. The resulting benefits may be encapsulated into a model of black economic intervention and uplift, led by an academic institution, that can be disseminated among governments, academic institutions, and society to replicate in their respective environments.

The Transformation of Cannabis in Society - from Good to Bad to Good

Cannabis is known by many names including reefer, weed, marijuana, Mary Jane, ganja, grass, 420, skunk, herb, dope, and others. Prior to the 1930s, cannabis had been used favorably in society for centuries dating back to at least 4,000 BC (Lashley & Pollock, 2020). In the mid-nineteenth century, cannabis was even recommended by US Pharmacopeia to treat a series of pain-related conditions, lack of appetite and a variety of mental health conditions (Vitiello, 2019). Until 1913, cannabis usage remained legal throughout all the United States under both state and federal law. Then, in 1913, the state of California, and a year later, Utah outlawed cannabis usage (Dills et al., 2020, Terry, 1915). Over the next nearly two decades, a total of 30 states banned the plant (Dills et al., 2020).

The growing movement to outlaw cannabis in states found an increased footing toward criminalization on the federal level by the 1930s. This movement, orchestrated through media, politicians, and policymakers was anchored in a demonization strategy in American society promulgated through racist policies and negative public sentiment in the U.S. (Vitiello, 2019). The Federal Bureau of Narcotics began pressuring states in 1930 to enforce its Uniform State Narcotic Drug Act and provided states with discretionary authority on how each effected its own cannabis policy oversight (Ferraiolo, 2007). Seven years later, the Marihuana Tax Act of 1937 created such a prohibitive taxation burden that it essentially illegalized cannabis federally (Musto, 1991).

The demonization and racist treatment of cannabis remained a mainstay of legislative and regulatory policy particularly during the Nixon presidential years when the plant became a Schedule I drug in 1970 under the Controlled Substance Act, and during the Reagan presidential years (Lashley &

Pollock, 2020; Vitiello, 2019). Not until 1991 would cannabis be approved in the United States in San Francisco, California for the medicinal treatment of AIDS patients. Usher in capitalism, enterprising individuals, and a growing body of scientific research that argues the plant's superior effectiveness in therapeutic and medicinal applications (Caligiuri, Ulrich, & Welter, 2018; DiDiodato, Hassan, & Cooley, 2021; & Vannabouathong, Zhu, Chang, & Bhandari, 2021), and now U.S. society finds itself experiencing one of the fastest growing industry explosions in modern times.

Because the plant remains federally prohibited, cannabis jobs statistics are neither tracked nor reported by the US Department of Labor. However, the cannabis industry is reported by various industry and media outlets to be the fastest-growing American industry in terms of new jobs created. Leafly's website, a news media providing cutting edge cannabis journalism, cannabis analytics, and cannabis market and job reports, claims that as of January 2021, there were 321,000 full-time equivalent (FTE) jobs supported by the legal cannabis industry in the United States. Even during the COVID19 pandemic which witnessed near universal job decline, the 321,000 cannabis jobs represented an astounding 32 percent year-over-year job growth over the previous year (Barcott, Whitnet, & Bailey, 2021). These jobs range from plant-touching jobs involving cannabis cultivation and extraction, supporting jobs in agricultural technologies and laboratory testing, and ancillary jobs in insurance, financing and pharmaceutical research and development. The current cannabis jobs in the US are projected to increase to nearly half a million by 2022 (Arcview Market Research, 2019).

Legislating Cannabis Social Equity

As states increasingly legalize cannabis, the need for social equity provisions becomes increasingly warranted. As the race toward establishing strongholds in the legal cannabis industry, commonly referred to as the "green rush," leads to wealth being concentrated in the hands of a few, some research shows that less than 6 percent of legal cannabis businesses are owned by African Americans (Harris & Martin, 2021). The explosive cannabis industry is thus far dominated by wealthy white men, while black and brown communities that have been disproportionately and adversely impacted by cannabis prohibition are not benefitting substantially (Rahwanji, 2019). Nonetheless, some progress has been made in overturning some convictions relating to misdemeanors, and curtailing future cannabis-related arrests. Yet, the need to focus regulatory efforts and financial resources and analysis remains to ensure that all individuals are granted equal opportunity to experiencing the benefits of cannabis legalization (Adinoff & Reiman, 2019).

At the federal level, US congressional efforts to address growing cannabis industry social equity disparities are being implemented with the introduction of proposed legislations such as the 2020 Marijuana Freedom and Opportunity Act, the 2019 Marijuana Opportunity, and Reinvestment Expungement (MORE) Act, and the 2017 Marijuana Justice Act. Some of these proposed legislations argue to remove cannabis as a Schedule 1 narcotic, erasing prior cannabis convictions for non-violent offenders, and establishing a federal tax on cannabis products (Collins, 2020). As of mid-2021, none of these proposed legislations became law. At the state level, lawmakers are incorporating social equity initiatives into cannabis legislation and regulations in an attempt to *right the wrongs* of the US cannabis prohibition period and to ensure that disproportionately impacted communities access economic opportunities in the cannabis industry.

Industry and Academia Transformation

The primary contributions universities provide to industries are knowledge transfer through basic and applied research, a stream of developed entry workers, increased innovation through entrepreneurship, and regional development and connectivity among industry firms (Fromhold-Eisebith & Werker, 2013). Yet, a recent Fulbright study revealed that while people believe universities do have an

important role to play in addressing key challenges the world faces, 51 percent of US respondents feel that universities do not equip graduates with the skills they need to be successful in a career and another 61 percent feel that a university degree is less valuable than it was 10 years ago (Ipsos, 2020). Higher education institutions are increasingly finding it difficult to improve the efficiency with which they produce outputs such as learning, research and engagement (OECD, 2020). They are also struggling with the choice to focus more so on maintaining the status quo or innovating and reinventing themselves. Many colleges in 2021 face existential threat owing to declining enrollment, retention, attrition, and budget shortfalls and shrinking budgets (Crump, Rolle, Reid, & Brevett, 2020).

Moreover, industry is increasingly demanding of academia job-ready graduates rather than graduates who need to be trained in-house (Parker, 2020). Students are likewise and intensely demanding that academia provide workforce development and readiness training in careers of today and tomorrow (Caligiuri, Ulrich, & Welter, 2018; Coopman & Coopman, 2020; Tholen, Relly, Warhurst, & Commander, 2016). Advancements in technology and innovation are in a rapid state of growth. As this growth occurs, industry has shifted its focus and demands for up-skilling and re-tooling of current and prospective employees. The credentialing they seek has shifted from a requirement of academic degrees to certification and other forms of credentialing, and a focus on employee performance (Schwartz, 2020; Taneja, 2018). Thus, to ensure that students are equipped for success in the workforce, institutions of higher education are being forced to adopt more entrepreneurial stances, and to build deeper ties with businesses (Corso, 2020).

Academic units stand much to gain when they collaborate with industry partners. The benefits comprise sponsorships for teaching and workforce development programs, enhanced experiential learning and social network access, problem identification and awareness, and job and career mobility for students (Prigge, 2005). Industry partners also reap benefits through such collaborations which include access to basic and applied research, brand enhancements through exposure and goodwill (Hillerbrand & Werker, 2019).

Nonetheless, the interests of academia and industry do often collide especially when industry's focus tends more toward applied research for profit generation, and academia's interests more so focus on creating and generating basic knowledge (Hillerbrand & Werker, 2019, Prigge, 2005). Among institutions where these differences vastly converge, conflict will likely ensue where academia and industry may become reluctant to engage as partners for research and curricular development collaborations (Hillerbrand & Werker, 2019).

Cannabis and Academia Tension

With explosive cannabis industry opportunities drastically increasing as more and more U.S. states move toward legalizing medicinal and adult-use cannabis, the current job and career landscape is likewise experiencing turbulent change. Labor entrants who would otherwise have filled non-cannabis jobs are now filling new and attractive jobs and careers in the explosive cannabis industry space (Cheng, Mayer, & Mayer, 2018; Grey, 2016). Attractive positions are now being filled in cannabis harvesting, product testing, product formulating, budtending, dispensary operations, website managing, product design and marketing, and other cannabis sectors outlined by *Greenlight*, an online human capital management, staffing and recruitment specialist firm that concentrates on the cannabis industry.

At different institutions, the portion of faculty who may stringently adhere to continuing doing what has served them well in the past, and to holding students of today and tomorrow to the best practices committed by students in the past, will vary. In 2021, many of these professors are tenured baby boomer faculty members who remember well, watching First Lady Mrs. Nancy Reagan, the federal U.S. government, and media as far back as the 1980s expound the perils of touching cannabis as being on par

with alcoholism and harmful illegal drug use and abuse. Many of these faculty are now senior (*i.e.*, versus junior) faculty members who have now risen to gatekeeper status in universities.

To put things in a temporal timeline perspective, a person who is 91 years young in 2021, was born when cannabis first became negatively stigmatized in the United States, lived through, and witnessed the US cannabis negative stigma error, and witnessed mass de-stigmatization of cannabis both culturally and legally. Similarly, people who lived through the 1960s, 1970s, 1980s, and 1990s witnessed and lived through the negative stigmatization of cannabis era. If their current views on cannabis reflect the stigmas that were societal and cultural mainstays throughout those timeframes, and if they are senior faculty gatekeepers on college campuses, with well-intentions they may often move to protect their institutions from falling victim to embracing cannabis education programs. Their thinking may well be based on a perception that cannabis education is being promoted as a lie born out of capitalism, greed, and entrepreneurship.

Other faculty and institutional gatekeepers may even perceive cannabis as an undesirable inclusion to campus offerings owing to perhaps religion, morality, and other notions. Yet many of these notions have been characterized in the literature as misguided, misinformed, and not factually grounded (Hill & Palastro, 2017; Kilmer, 2019). Some studies go on to proffer that such dogmatic whispers or claims are even harmful in that they prevent forward progress in helping college students, industry firms, individuals in society, educational institutions, healthcare patients, healthcare practitioners, and black and brown communities who have been disproportionately and adversely impacted by such utterings (Adinoff, & Reman, 2019; Ghiabi, Maarefvand, Bahari, & Alavi, 2018; Rankin, Garrett, & MacGill, 2021). Thus, academic institutions can benefit through critical dialogue and discourse where competing perspectives are collegially presented and debated. Faculty gatekeepers who resist the notion of cannabis education having no rightful place on a college campus can present a plethora of scholarly works, activists' dossiers, proposed bills, pieces of science and other evidence to help others internalize the many needed benefits of introducing cannabis on a college campus, and particularly so on historically black colleges and universities and predominantly black institutions. In the next section, this study lays out some of those benefits including workforce development, and science, medical, environmental impacts, and business research.

Academia's Response to Cannabis

Workforce development opportunity for employment

Given the cannabis industry's workforce development demands for a trained cannabis workforce with a broad range of skills, from accounting and logistics to farming and production, some US institutions of higher education are now adding cannabis educational programs to their offerings. These programs are preparing students for cannabis careers in cultivating, processing, researching, analyzing, dispensing, marketing and other ancillary cannabis positions. Oaksterdam University (OU) in 2007 led this charge to address the cannabis education vacuum and was the first institution to offer cannabis certificate courses. Soon after, other cannabis specific institutions offered practitioner-based instruction on growing and running a cannabis company (Bunting, Garcia, & Edwards, 2013). Next, in the United States, a small number of four-year colleges and universities stepped in to offer cannabis programs focused on science disciplines to support scientific research, medical practices, and in-depth analysis of cannabis and its various nuances (Crowder, 2019). See Hasse (2019) for a detailed chronology of US colleges and universities along with their respective cannabis educational courses, seminars, certifications, and degree programs. Many researchers argue that academicians must work very closely with cannabis industry employers to remain current with this rapidly changing industry, and to keep their curriculum up to date (Crump, Rolle, Reid, & Brevett, 2020).

Cannabis science and medical research

At the time of writing this paper, cannabis had been designated as a legal medical drug in New York and 38 additional U.S. states and territories. However much of the medical knowledge disseminated to the public about medical cannabis was derived and pushed by large corporate cannabis marketing of poorly substantiated health claims. Such medical marketing techniques were not regulated federally or internationally to counter potential harmful consequences (Ayers, 2019; Grech, 2019). A growing number of colleges and universities have therefore begun addressing cannabis research deficits. Two notable examples are UCLA's Cannabis Research Initiative which is dedicated to the study of cannabis and has studies underway ranging from medical treatments to economic impacts; and Rowan University's Cannabis Institute in New Jersey which conducts research to help fully understand the impact of New Jersey's cannabis laws as well as the potential medicinal uses of pharmacologically active components of cannabis.

Cannabis as a therapeutic is gaining traction among scientific studies for its promising efficacy among many medical conditions that are challenging to treat (Hill & Palastro, 2017). In response, the number of medical doctors and healthcare practitioners prescribing and administering cannabis is also drastically increasing (Hill & Palastro, 2017; Kilmer, 2019). This is prompting many researchers and practitioners to argue that medical and allied health students stand much to gain if they are trained in the application of medical cannabis to clinical care (Zolotova, 2021). Some pharmacy organizations have even begun advocating for pharmacists' education on therapeutic and legal issues related to medical cannabis, as more patients are prescribed cannabis as a therapeutic (Kruger et al., 2021).

Hence research scientists are producing a broad body of literature supporting the medicinal benefits of cannabis. A quick search of Pubmed.gov reveals nearly thirty-thousand scholarly medical research articles, while a search of Clinicaltrials.gov reveals more than 500 clinical studies involving cannabis. Many of these studies emphasize a need to close knowledge gaps in balancing potential health risks and therapeutic benefits associated with medicinal cannabis use. Consequently, embedded within the scientific literature is the portrayal of an urgent need for additional research examination in this area. This need is exacerbated by the reality that roughly only 10 percent of the chemical components of the plant are identified. Therefore, the scientific community posits that chemical identification of remaining compounds as well as investigation of the science underlying their bioactivity is critically needed.

A major barrier to answering this research call is that researchers and academicians face numerous obstacles to studying cannabis particularly given its federal status (Erickson, 2020). The obstacles include limited access to the entire plant for research; researchers being restricted to use only cannabis grown by the University of Mississippi under contract with the National Institute on Drug Abuse (NIDA); accessibility constraints leading researchers to rely on synthetic formulations of specific cannabis cannabinoids to study the therapeutic effects of cannabis; cannabis researchers needing to get approval from three federal agencies; and limited funding (Erickson, 2020).

Cannabis and Environmental Impacts Research

In addition to chemical, pharmacological and medical research opportunities there remains a growing concern to scientifically address a tremendous environmental burden imposed by the carbon footprint of the growing cannabis industry. Numerous opportunities await whereby science can inform cannabis touch practitioners and regulators on how to move the industry towards minimizing environmental harms (Watenberg, 2021). Such contributions informed by research may include how to minimize the number of plastics used for packaging, the quantities of electricity used for indoor cultivating, and strain on resources for cultivation waste management. Some University of California campuses have established

centers investigating environmental impacts and regulatory dimensions of cannabis cultivation (Crowder, 2019)

Cannabis and Business Research

An expansive body of scholarly research publication of business case studies specifically written on cannabis firms has been building since the 1990s. These and other publications find themselves in top tier business journals such as the *Harvard Business Review*, *Journal of Small Business and Entrepreneurship* and the *Journal of Supply Chain Management*. Business departments depend on establishing strategic partnerships with industry to spur more academic research that informs industry and to strategically benefit. Such partnerships in the fast-growing cannabis industry provide promise in yielding more peer reviewed publications in business journals, more industry sponsored research, and therefore added impact and relevance from the industry sponsored research.

HBCUs, PBIs and Cannabis Education

Historically black colleges and universities (HBCUs) and predominantly black institutions (PBIs) aim to improve higher education access for the primarily black, and to a lesser extent, brown, populations they serve. Nonetheless, much work remains in closing the widely established inequality gaps in higher education completion rates between them and other racial and ethnic groups. One research supported strategy to improve academic success metrics among black and brown college students is to intentionally and strategically restructure their social networks in such a way that contributes to their career attainment and elevation (Mishra, 2020). One such way includes adding industry network ties and nodes, as well as increasing the intensity and frequency of interactions among black and brown college students and industry practitioners.

Also, given HBCU's and PBI's disproportionate number of learners and community members who, relative to those at other campuses, have endured the brunt of the burden of cannabis legislation and regulation, with black individuals being 3.73 times more likely to be arrested for cannabis possession (Bunting, Garcia, & Edwards, 2013), the need for cannabis education at HBCUs and PBIs seems greatly warranted. Yet the cannabis education needed to assist black and brown individuals to proportionately access the booming cannabis industry, however, is generally dispersed throughout non-HBCUs and non-PBIs. Establishing innovative and promising new programs such as cannabis education at HBCUs and PBIs would be instrumental in providing the type of highly sought education that advocates, activists, educators and top state government officials and legislators seek (Crump, Rolle, Reid, & Brevett, 2020); the types of education that promises more social equity gains among participants in the cannabis industry.

Cannabis - from Stigmatization to Legitimacy

Lashley and Pollock (2020) explain that stigmatized industries such as the cannabis industry must overcome stigmatization to achieve growth, sustainability, and success. Their investigation enumerates the critical steps that cannabis activists took beginning in the early 1970s and continuing now to reduce the stigma of cannabis in U.S. society. The first step, *initiating a Moral Agenda* consists of activists psychologically reframing the perception of "marijuana" to be instead perceived as "medicinal marijuana." This repositioning led to the passage of Proposition P law in San Francisco in 1991, and later in the entire state of California in 1996. This repositioning strategy changed the psychological identity and stigma of the plant (and who smokes it) from being a Schedule 1 drug used and illegally traded by addicts and criminals to instead being a miracle medicine.

The second step, *Moral Prototyping* (of an industry), includes transforming the industry that produced and supplied the plant to be identified with healing, and being disidentified with recreational use and the black market. The third step, *Side-stage Negotiations*, includes coalition and consensus building among

legalization activists, lobbyists, legislatures, and competitors who differ on how best to implement legalization among cannabis use. The fourth and final step, *Morality Infusion*, consists of cannabis industry firms actively seeking to disseminate squeaky-clean business and product images that are beyond reproach and executed by good people who uphold the best interest of the users and communities they served. This step also includes cannabis firms winning acceptance of their legitimacy to trade associations, lobbyists, legislatures, voters, state and federal government, the media, and the general public.

Black (2020) similarly argues that higher education change agents wishing to introduce cannabis, a controversial topic, on a campus could take the following four steps in order to meet the needs of the cannabis industry: (1) perceive, embrace, and promote the cannabis industry as a professional industry; (2) consult and collaborate with, and be directed, by industry experts in creating academic courses and programs; (3) create courses or programs that remain nimble to the rapidly changing needs of the cannabis industry; and (4) design courses or programs that hold the essence of love and passion for the cannabis plant. Academic program development typically is arduous, requires the support of many stakeholders, and is often political. Thus, the success of innovative new programs is in large part anchored in the approach taken by program champions.

Methodology

The research methodology used in this study includes a comprehensive review of the literature on the evolving cannabis industry and its transformation in the academy. The literature review cited in the introduction and supporting sections of the paper discuss relevant factors of cannabis including its history and impact on society.

The target population of the study includes the academic community of Medgar Evers College, specifically, faculty, administrators, and students. While the specific target population is Medgar Evers College, we posit that the study and its findings hold interests and possible replications for other PBIs and HBCUs.

The focus of the research is a demonstration case study of the introduction of academic credit-bearing curriculum through courses and experiential learning. Several courses are presented including an in-field internship. The study includes prototyping and promoting the cannabis industry as a professional industry; negotiating and collaborating with internal and external constituents; creating a multi-dimensional stakeholder's task force; surveying student interest in the proposed curriculum; and sourcing curriculum development.

The study also includes a discussion on sourcing funding to execute the proposed curriculum; preparing curriculum for approval through the governance process; and submission of curriculum for university approval. The study additionally includes a discussion and explanation of the bottom-up grassroots approach of defining a need and leveraging resources to develop an academic solution to a new and growing industry.

Introducing Cannabis Education at MEC

The purpose of this section of the paper is to inform academicians of a journey that is unfolding at an urban public college in Brooklyn, New York City, in the United States, and to outline the steps that have been taken and show how those steps relate to Black (2020) and Lashley and Pollock's (2020) recommendations. The paper documents the strategy and steps that a small group of faculty, alumni and students at the college took and continues to take as of the Spring of 2021 to include cannabis studies and programs to primarily the black and brown people the campus serves. At the time of completing this paper, the efforts were beginning to gain promising traction, despite being more than a two-year journey

of ups and downs. The effort began with the cries of students and recent alums who demanded that the institution act in response to knowledge that the students and alumni quite saliently possessed.

New York State passed a bill on March 30, 2021, legalizing cannabis for recreational use. Passage of that bill legalized cannabis for both medicinal and recreational use. Yet, such responsive regulation is hampered by the fact that cannabis education remains widely unavailable in the state, and even more scarcely so among PBIs in New York City. There are no HBCUs in the state of New York. This lack of access to cannabis education contributes to the exclusion of many students who wish to enter the legal cannabis industry in any number of the numerous cannabis industry subsectors laid out earlier. The education void also excludes small and large cannabis businesses from hiring skilled workers from diverse communities who possess the specialized skills training required, and right types of social network access, to enter to and excel in the unfolding cannabis industry. Together, these deficiencies contribute to a widening of the existing rift between job seekers and employers; a rift born out of a lack of cultural competence (Bobwitch et al., 2019).

Medgar Evers College's approach to addressing this problem is to develop rift elimination programs, to improve workforce development, entrepreneurial acumen, and bridges to financial resources for minorities to participate in the growing legal cannabis industry. This approach provides promise through implementing a major step toward closing the economic justice gaps that would otherwise prevail for many more generations. Absent this approach, black community members seem headed to business as usual where their primary role in the impending cannabis industry is that of low level "factory" workers and purchasers of the products produced by existing and new entrant firms that are favorably positioned in this booming industry in part birthed by the disparaging policies borne by black and brown populations.

This story is one that is all too familiar: An industry created on the backs of the very people it has long systematically exploited, punished, and marginalized. The economic result largely described as a machine that ensures rapidly sustained wealth transference as one community is left with limited options and therefore sells its labor to build the products, earns fewer wages, purchases the products often through interest and penalty-bearing credit instruments, and is caught in a vicious cycle that perpetuates continued poverty and all its woes and perils entailed. In response, the following strategies and steps were employed towards introducing a cannabis education program at MEC:

Step 1. Initiating a Moral agenda

MEC Action 1: A Movement is Born

Throughout the Fall of 2018, students and alumni at Medgar Evers College began asking some professors on campus what plans were in place to offer education and assistance to capitalize on cannabis industry opportunities. By Spring of 2019 the questions evolved into assertive statements that the campus should urgently and seriously examine such prospects. A small group of students, alums and faculty began periodically setting up a table in the highest foot traffic location on the campus and in its administration building. The purpose was to ask students, administrators, staff, faculty, community members, and other campus visitors their thoughts and insights on cannabis. The question was: "*What's up with Cannabis?*" Many people from all the stakeholder categories above visited the tables and shared many insights on urging the campus to (1) actively pursue watchdog strategies; (2) offer transition assistance from legacy economy (formerly referred to as "*illicit*") participation to legal economy participation; and (3) offer cannabis career and entrepreneurial training.

By early Spring, the informal inquiry evolved into a budding grassroots movement for cannabis education on campus. The team sent out a campus email call to many stakeholders asking those interested in getting involved to meet in a conference room on the second floor of the administration building. The

event was announced three weeks in advance. Nearly thirty grassroots organizers met in that room consisting of two faculty members, about a dozen alumni, about a dozen students, and a handful of staff. The group met and grew weekly until a change in venue mandated meeting in a larger library conference room. Two alumni leaders emerged along with the original two faculty members who showed up.

Throughout the interactions that continued over the next few months among campus stakeholders, a common theme emerged. A sizable portion of students, faculty and staff strongly asserted their view that anything to do with cannabis was negative and has no rightful place on a college campus. Some went so far as to chastise even the mention of cannabis education arguing that such activities amount to teaching students to walk the halls smoking blunts and smelling like weed. Others argued that the campus should refrain from inviting a negative stigma of cannabis to be attached to the college. Other myths strongly pushed were that cannabis is a gateway drug, the college would lose state funding if cannabis education was offered, and that cannabis education on campus would give students a pass to have and smoke cannabis on campus.

It quickly became evident that a drastic change in people's attitude toward cannabis was needed before cannabis would be welcomed on MEC's campus. The task force understood it needed to recraft the messaging of cannabis espoused by many campus constituents and gatekeepers. It had to help move the perception of cannabis from a negative stigma of misuse and abuse to a positive light as an education program necessitated as a moral responsibility of the college. It also had to convince people of the value of an academic pursuit of cannabis for workforce development, opportunities for funding research and student support, and opportunities for filling science and medicine knowledge gaps.

The group of grassroots organizers crafted a campus messaging draft for constituents and argued that MEC is best positioned among other societal institutions to help improve the dismal workforce readiness and new business creation metrics of its stakeholders as they relate to the rapidly growing cannabis industry. The messaging also argued the campus role of providing trusted information on the transformation of anything in society, including cannabis, that impacts business, social, health, science, economic, and justice impacts on the people the campus serves. The messaging argued that students and community members should not be forced to seek elsewhere for critical knowledge in this area. These actions constituted Lashley and Pollock's (2020) *initiating a moral agenda*.

Add in Step 2. Prototyping and promoting the cannabis industry as a professional industry

Add in Step 3. Side-stage negotiations and collaborations with internal and external constituents

MEC Action 2: Reframing "cannabis" as an emerging industry for workforce development and medical promise

Students were extremely passionate in their desire for a cannabis town hall to be organized. Thus, in 2019 #LetsTalkCannabis - a cannabis town hall held in the Spring semester of 2019 was planned and executed by the group on an evening in March 2019. Local and national cannabis experts came and provided an insightful conversation. Students and alumni enjoyed dinner with the panelists leading up to the event and on the evening of the event. Subsequent conversations continued with the cannabis experts and the informal cannabis education information inquiry group throughout the following months. Those conversations soon evolved into plans to provide a cannabis education, workforce development, and business training program for the people served by Medgar Evers College.

Insights gained through the town hall led the grassroots organization to converge their actions into a honed positioning strategy. The well-defined strategy was prototyped to accurately convey cannabis as a professional industry rife for workforce development and new business creation opportunities. This prototyped strategy emphasized how these new career and entrepreneurial opportunities could be likely forfeited if campus stakeholders did not quickly ban together to advocate on behalf of students and other

community members the campus is entrusted to serve. Thus, this action constituted Lashley and Pollock's (2020) *prototyping of a messaging strategy*.

MEC Action 3: A Task Force is Created

It quickly became apparent that a more in-depth collaboration was needed to create a program that would deliver real and instrumental outcome value to program participants. The informal group identified a need for a cannabis curriculum that was co-written by faculty and a cadre of top executives who were leaders in the cannabis industry. A centrally focused goal emerged as ensuring that the newly created campus curriculum and program would instrumentally pipeline participating students to receive attractive job offers by the firms led by those top executives.

But to engage in the type of dialogue and collaboration required some funding beyond the bootstrap funding used up until this point. The group formally organized in December of 2019 as the MEC Cannabis Education Task Force and won a competitive campus grant of \$10K based on the group's promise to formally deliver such a new curriculum and program. Now funded and sanctioned by the Office of the President and the Office of the Provost and Academic Affairs, the group established its leadership structure of an executive director, deputy director, a faculty lead, and a faculty co-lead. The students and other alumni remained active participants in planning and execution.

A second town hall was scheduled for March 2020. A three-day syllabus-writing and planning conference was also scheduled leading up to the March 2020, #LetsTalkCannabis town hall. A few days prior to the conference, the infamous COVID-19 pandemic forced the campus to close for safety purposes. Soon after, the important work of the movement continued by shifting to an online setting. Over the next year, nearly 10,000 volunteer hours of collaboration with key *industry, academic, and investor* cannabis experts were informally spent to build out a comprehensive cannabis education and research program. Additionally, letters of support, for the cannabis education program, from legislators, activists and cannabis operators were secured. The collaboration that occurred among very diverse groups during this step constituted Lashley and Pollock's (2020) *side-stage negotiations with internal and external constituents*.

Add in Step 4. Creating flexible courses and programs for rapidly changing needs of the cannabis industry

Add in Step 5. Building passion into new courses and programs

MEC Action 4: Gauged Interest in Cannabis Education

To formally gauge interest in cannabis education, a survey was administered in the Spring 2021. 122 people in the MEC campus community weighed in on their desire to enroll in cannabis education courses on MEC's campus. 98 percent of respondents indicated a definite or possible interest in taking cannabis courses on campus. 93.2 percent indicated an interest in enrolling in a cannabis minor on campus. 77.7 percent of respondents indicated an interest in enrolling in a cannabis major on campus. Interestingly, a large portion of respondents who were either no longer or not currently enrolled at MEC indicated that they would enroll or reenroll there if the campus offered cannabis education courses. The campus also continued to present virtual cannabis town hall conversations including, #LetsTalkCannabis - Mentor Monday, March 1, 2021, as well as communicating with other similar campuses who requested help in planning their budding campus cannabis programs.

MEC Action 5: Curricular and Program Development

The MEC Cannabis Education Task Force in concert with more than 50 industry, academic, investor and advocacy experts created a comprehensive planned cannabis education and broader support program comprised of four pillars: (1) education and workforce development, including thirteen new cannabis

courses that received campus-wide curriculum approval; (2) scholarship; (3) entrepreneurship; and (4) various types of advocacies.

Academic rigor remained a key component in creating the proposed new cannabis curriculum. Great care was taken to develop an academically rigorous curriculum fully grounded in science and business principles and therefore above reproach. This step was necessary for establishing academic legitimacy to secure additional buy-in from faculty and administration. This step addresses Lashley and Pollock's (2020) *Morality Infusion*. All cannabis courses in health and science tracks comprising a minor are anchored in basic science and require science general chemistry, organic chemistry, general biology, and anatomy and physiology as prerequisites. Cannabis commercialization courses are also grounded in business and entrepreneurship principles that apply to cannabis as well as other industries. Each of the newly developed courses were developed to ensure that students gained knowledge and skill sets needed by cannabis employers. Pipelines for industry internships and experiential learning opportunities were likewise built into the curriculum. These actions align with Black's 2020 step of *consult and collaborate with, and be directed, by industry experts in creating academic courses and programs*.

Employing a multi-disciplinary approach, the following outcome areas are targeted in the execution of proposed cannabis education programs at MEC:

Improving MEC's decreased enrollment and retention: As a timely, relevant, and market-driven program of study with direct pipelines to employment, this program is expected to increase enrollment and retention.

Education: Thirteen new cannabis courses were developed that will constitute a minor degree program. This minor degree program comprises four concentration areas: science 1(formulation/testing); science 2 (cultivation); health and commerce. The courses unanimously passed campus-wide curriculum approval at Medgar Evers College and have now been submitted to City University of New York (CUNY) and awaiting university approval. Flexibility to meet rapidly changing industry demands is built into each of the 13 new cannabis courses. Even during the two-year period of creating this program, as well as the during campus curriculum approval process, adult-use cannabis became legalized in the state of New York. The flexibility already built into the course made for seamless pivots and iterations in some of the courses that had already been submitted for campus approval consideration. This step constituted Black's (2020) *creating flexibility in courses and programs to respond rapidly to changing needs of the cannabis industry*.

Workforce development: According to Leafly's 2021 job report: "While cannabis continues its run as America's fastest-growing industry, troubling racial and gender disparities remain. Black Americans represent 13% of the national population, but they represent only 1.2% to 1.7% of all cannabis company owners—a gap that is far too wide." The proposed MEC cannabis education program will address this gap through built in pipelines to mentorships, scholarships, internships, experiential learning opportunities and job placement for students in collaboration with industry collaborators. An extensive network of cannabis industry leaders, influencers and employers have already been cemented to support these workforce development pipelines.

Scholarship: This program will facilitate interdisciplinary funded faculty, student research and industry collaborative research projects and publications. The program will also include science labs and innovation labs enhancements that facilitate faculty-based consultation services to industry.

Entrepreneurship: This program will facilitate the development of innovation projects aimed at addressing problems, needs and deficits in the cannabis industry. A makerspace will be outfitted for exploratory research and prototyping endeavors. Students trained in this program will be guided to start and run their own cannabis-related businesses, and to provide intrapreneurial innovations to hiring firms as employees and managers.

Advocacy: In collaboration with cannabis industry, activists, and other leaders, this program will prepare, and advocate for, students and community members as future workers and cannabis-related business owners. This program also aims to provide guidance to people wishing to transition from the legacy cannabis market to the legal cannabis market while also advocating on behalf of formerly and currently incarcerated cannabis offenders.

Economic impact: There is a justified fear that MEC and the community it serves could lose out on its rightful share of funding, access to, and participation in the legal cannabis marketplace. MEC has a competitive advantage to access both state and corporate funding opportunities set aside to address cannabis education, social equity, reinvestment, and access for communities of color who have been disproportionately affected by the U.S. historical cannabis policies and war on drugs. Acquired funding will be used for addressing campus deficits, resources for scholarly research, infrastructure support, curriculum development, and community outreach efforts, programs, and support. The expectation is that these funded activities will help to reverse many of the looming economic metrics that pervasively plague the campus students and community.

Community impact: MEC has a sustainable comparative advantage in that it has access to, and trust from, the Brooklyn communities most adversely impacted by the U.S. historical cannabis policies and war on drugs. Research most strongly confirms that black and brown populations have extremely heightened levels of distrust for others (Crump, Hills, & Hardin, 2018; Crump, 2013). Thus, these population members avoid engaging institutions and agents they perceive as outsiders, and they avoid being captured as research subjects. As emerging scientific information continues to compete against sensationalized and advertisement-based information, this program offers students, staff, and the surrounding community a trusted hub for education, training, and advisory services. Arising from the campuses annual Environmental Conference in 2019, it's cannabis town hall and other interactive forums, black and brown Brooklyn stakeholders and community members are asking MEC for:

- assistance in terms of identification of entrepreneurial opportunities in the legal cannabis market
- assistance in creating their own cannabis businesses
- education on the safety of newly legalized commercial products
- access to scarce and much needed lab facilities for cannabis product testing
- assistance with product formulation and development
- advice on how to transition from legacy (illicit) to the legal market
- understanding cannabis-related record expungement processes and implications
- a fact-based, data-driven resource for differentiating between cannabis fact and fiction.

Each of the curricular and program development actions above were predicated on the belief that doing so would serve the best interest of students, alumni and other campus stakeholders and community members. The combination of (1) campus talks informally and organically transpiring at tablings on campus; (2) formal talks that occurred during in-person and virtual town halls; (3) interactions that occurred over dinners in local Brooklyn restaurants between cannabis experts and students; (4) informal talks among students, alumni, staff, faculty and campus visitors from the community; and, (5) the survey administered to gauge interest in cannabis education on campus, all brought to light profoundly deep and heartfelt concerns among particularly students, alumni and community members. The intensity embodied in the expressions of concerns were heard by campus faculty, staff, and administrators. Their voices won over even the previous skeptics as well as former naysayers. Now a vocal majority, the campus voices were passionately united to act swiftly and seize the moment on behalf of those people who MEC is proud to serve. The campus voices united to build in passion into any new courses and programs that would be advanced. Thus, this step constituted Black's (2020) *building passion into new courses and programs*.

MEC Action 6: Funding Talks Initiated

While cannabis is legal in many US states, the federal illegalization status of the plant cuts off many avenues of cannabis research. Hence funding opportunities outside of the usual state and federal mechanisms must be sought. IVY league institutions typically fare better at securing private funding. For example, in 2019, a donor gave \$9 million to Harvard and MIT researchers to explore the science of cannabinoids (HMS Communications, 2019). The MEC Cannabis Education Task Force is trying to secure both state funding and cannabis industry funding.

The New York State governor's office announced as part of its 2021 bill legalizing marijuana for recreational use, a \$100 million cannabis social equity fund. This fund should provide funding for social and economic empowerment programs to support job skills and placement services, adult education, and mental health and substance abuse treatment. The MEC Cannabis Education taskforce has also been in numerous talks with cannabis MSOs, investors, and other cannabis entities to secure funding for its educational initiative. Letters of support were received by the campus from numerous collaborating partner institutions. However, in the Spring of 2021 semester alone, three key leadership changes occurred. The previous campus president who had served since 2013 resigned, an interim president was instated, and a permanent president was hired and took position on May 1, 2021. Thus, securing signed memorandum of understandings (MOUs) was faced with some delay. In the interim, however, steps were taken to round out the task force team in such a way that could ensure long-term success and sustainability for the campus.

MEC Action 7: Curriculum Submission for Approval

In the spring of 2021, at the time of writing this paper, the curriculum was approved at the campus level. The curriculum was then presented to CUNY for approval. CUNY university approval if granted during the summer months of 2021 would facilitate courses being offered beginning in the Fall of 2021. Thus, MEC's actions number six and seven above, in addition to all the other campus actions, constitute the summation of Black's (2020) and Lashley and Pollock's (2020) steps and recommendations when applied to introducing cannabis on a college campus.

What's Next?

Four major steps await the cannabis education task force. First, the task force must obtain approval from the City of New York (CUNY), its central university. Thus, the task force must be prepared to present and defend its proposed programs inclusion if called to do so. Critical voices may or may not be open to such inclusion. Yet such support is necessary if the program is to be both effective and sustainable over the long-term. Second, if CUNY support is provided, the task force must round out the team with key representation from its university. Such representation is needed to shape the formal and written agreements with external partnering institutions. The third step consists of securing the necessary funding needed for the program to work. The fourth step includes marketing to obtain critical masses within each of the essential stakeholder groups. The fifth and final step includes executing the program.

Summary

This study outlined how Medgar Evers College addressed Black's (2020) and Lashley and Pollock's (2020) recommendations on introducing cannabis education on a college campus. The actions of the MEC Cannabis Education Task Force were taken in response to an urgent need to ensure that rightful opportunities are made available to primarily the disenfranchised student, alumni, and community members the campus serves. The actions also extend to non-disenfranchised community members and campus stakeholders as well. The major steps taken thus far included *initiating a moral agenda, moral prototyping, side-stage negotiations, morality infusion* (Lashley and Pollock, 2020), and (1) perceive, embrace,

and promote the cannabis industry as a professional industry; (2) consult and collaborate with, and be directed by, industry experts in creating academic courses and programs; (3) create courses or programs that remain nimble to the rapidly changing needs of the cannabis industry; and (4) design courses or programs that hold the essence of love and passion for the cannabis plant (Black, 2020).

The above steps taken offer promise in helping to reverse many of the adverse impact metrics that the campus is charged to combat. The steps are taken because of the task force members' and their many campuses partners' belief that doing so is morally right and just. The comprehensive educational, workforce, entrepreneurial, and advocacy development plans encompassing the strategy were co-created with external campus partners that serve as pipeline targets for students and community members who participate in, or complete, the training programs. The comprehensive programs are also symbiotic in that the foundation of the planning is based on industry and graduate program goals made explicit to the cannabis education task force by those institutions directly. The task force believes that in the final analysis, its co-executed programs and training will ultimately serve to mitigate and in some cases eradicate many of the perils that persist to the detriment of the black and brown communities it serves.

Discussion

Given the social injustices borne by members of the disenfranchised community members served by Medgar Evers College, this program is a promising step in the right direction to right many wrongs. This approach provides promise through implementing one major step toward closing the economic justice gaps that would otherwise prevail for many more generations. Absent this approach, black community members seem headed to business as usual where their primary role in the impending cannabis industry is that of low-level factory-type workers and purchasers of the products produced by existing and new entrant cannabis firms that are favorably positioned in this booming industry in part created by the disparaging policies disproportionately administered on black populations.

This story is one that is all too familiar: An industry borne on the backs of the very people it has long systemically exploited, punished, and marginalized. The economic result largely described as a machine that ensures rapidly sustained wealth transference as one community is left with limited options and therefore sells its labor to build the products, earns fewer wages, purchases the products often through interest and penalty-bearing credit instruments, and is caught in a vicious cycle that perpetuates continued poverty and all its woes and perils entailed.

The approach adopted by Medgar Evers College to introduce cannabis education on its campus was a grassroots, bottom-up approach versus a top-down approach. Campuses adopting a top down approach where top administrators initiate the charge to introduce cannabis on their campuses, in addition to recruiting faculty and staff champion such a cannabis inclusion program, should following Schoolcraft and Sax (2016) recommendations to overcome five common barriers to the development of new academic programs: (a) expedite the process by creating a fast-track approval process; (b) lighten the load by fostering a collaborative relationship between faculty and the administrator involved with the college's finances; (c) cultivate champions by providing incentives such as stipends, professional development, travel, and research grants; (d) leverage expertise by repackaging programs to implement an interdisciplinary/multidisciplinary approach; and (e) express culture by changing the college culture from an academic mindset to an entrepreneurial mindset. As more campuses, particularly HBCUs, PBIs and other campuses that education large numbers of disenfranchised black and brown populations insert cannabis education into their curricular, academia will find itself a major force helping to enact economic and social justice and equity as they relate to cannabis and its promising and unfolding industry.

Recommendations

The following outline recommendations to various stakeholders from the current research. First, educational institutions should consider how implementing a cannabis education and program initiatives fit within any socioeconomic equity and justice aspects of their campus mission. Institutions with a focus on educating members of the community who were adversely impacted by historical anti-cannabis policies should adopt each of the seven steps outlined in this study. An additional recommendation to these institutions is to begin by securing the support of internal and external partners and working closely with those partners throughout the entire process that leads to curriculum passage.

Limitations of the Research

Two limitations of this study's research are identified. First, the research does not capture all cannabis activities that may have occurred on the campus. Other staff and faculty may have independently engaged in events such as inviting speakers to a class session or holding meetings that were not broadly known across the campus community. Such activities are not reflected in this study and may have indirectly helped to foster some of the broad campus support that was eventually achieved. Second, in focusing primarily on the campus as a unit of analysis, this study does not fully capture the degree to which external stakeholders' influence may have contributed to garnering broad campus support for cannabis education. Many community activists, legislatures, public servants, alumni, cannabis organizations and others undoubtedly provided some impact on the evolution of internal member support for cannabis education on the campus.

Suggestions for future research

Our suggestions for future research are to examine what are, if any, the specific types of constraints that exist on a specific campus that prevents cannabis education inclusion into curricular and other campus programs. We believe that such constraints originate from different philosophical, moral, cultural, and economic paradigms. Determining which types of constraints exist at a given institution should determine which type(s) of strategy proves effective in overcoming such constraints. Second, we believe research should be conducted on how best to introduce cannabis education and programs on a campus based on discipline. For example, introducing cannabis education in social science disciplines likely requires different strategic actions than what is required to introduce such strategies in hard sciences disciplines and academic departments.

Third, we recommend researchers specifically delineate both the economic and social costs and benefits of introducing cannabis education and programs into a college program in terms of budget impact, non-financial resources and effort expenditure, and campus brand. We further suggest that this research inquiry should be geographically based given that sociopolitical and sociodemographic configurations based on region may differently impact how best to proceed in introducing cannabis on a college campus. Fourth, we recommend that researchers investigate the relationship of generation influence on campus propensity to include cannabis education and programs in its curricular and activity. Our fifth and final recommendation is to investigate how effective strategic marketing approaches differ in being applied to various individual key stakeholder groups such as students, faculty, administration, industry partners, graduate programs, legislatures, parents of students, and community members.

Acknowledgements

The authors thank WomenGrow and its CEO, Gia Morón for invaluable support as the most instrumental external campus partner in helping the campus program accomplish its goals.

References

Arcview Market Report (2019). Arcview Group, Intrado GlobalNewswire.

- Adinoff, B., & Reiman, A. (2019). Implementing social justice in the transition from illicit to legal cannabis. *The American journal of drug and alcohol abuse*, 45(6), pp. 673-688.
- Ayers, J. (2019) The need for federal regulation of marijuana marketing. *JAMA*. 321(22), pp. 2163–2164.
- Barcott, B., Whitnet, B., & Bailey, J. (2021). Legal cannabis now supports 321,000 full-time American jobs. *Jobs Report 2021*. pp 1-16.
- Black, B. (2020) Creating a qualified cannabis workforce: How higher education can support cannabis career pathway. 9th International Conference on Business & Economic Development. Online. August 22, 2020.
- Bodwitch, H., Carah, J., Daane, K. M., Getz, C., Grantham, T. E., Hickey, G. M., & Wilson, H. (2019). Growers say cannabis legalization excludes small growers, supports illicit markets, undermines local economies. *California Agriculture*, 73(3), 177-183.
- Bunting, W.C., Garcia, L., & Edwards, E. (2013) The war on marijuana in black and white. *American Civil Liberties Union*, June, pp. 1-190.
- Caligiuri, F.J., Ulrich, E.E., & Welter, K.J. (2018). Pharmacy student knowledge, confidence and attitudes toward medical cannabis and curricular coverage. *American Journal of Pharmaceutical Education*, 82(5), pp. 424-432.
- Cheng, C., Mayer, W.J., & Mayer, Y. (2018). The effect of legalizing retail marijuana on housing values: Evidence from Colorado. *Economic Inquiry*, 56(3), pp. 1585-1601.
- Collins, J. (2020). A Brief History of Cannabis and the Drug Conventions. *AJIL Unbound*, 114, pp. 279-284.
- Coopman, S. & Coopman, T. (2020). ExperientialLearning@SocialMedia.edu: Using the tech start-up concept to train, engage, and inform students. *Ubiquitous Learning: An International Journal*. 13, pp. 1-29.
- Corso, R. (2020) Building an Innovative and Entrepreneurial Dimension in an Institution of Higher Education. *Higher Education for the Future*, 7(2), pp. 200-214
- Crowder, L. (2019). The rapid evolution of UC cannabis research. *California agriculture* 73(3-4), 106-112.R-15.
- Crump, M.E.C., Rolle, J.D., Reid, A.E., & Brevett, R. (2020). Faculty impact on campus survivability through student experience: An appeal to reengineer faculty offerings to students at at-risk colleges facing existential threat. Paper presented at the 9th International Conference on Business & Economic Development, online. August 22, 2020.
- Crump, M.E.S., Hills, N.J., & Hardin, B.W. (2018). Informal economy as a cause for understating actual rates of entrepreneurship among blacks in the U.S. and in Africa. *International Journal of Business & Economic Development*, 6(3), 15-28.
- Crump, M.E.S., Singh, R.P., Wilbon, A.D., & Gibbs, S.R. (2015). Socio-demographic differences of black versus white entrepreneurs. *Academy of Entrepreneurship Journal*, 21(1), pp. 115-129.
- Crump, M.E.S. (2013). Black entrepreneurship: Formal versus informal economy exploitation. *Washington Business Research Journal*, 3(1), pp. 85-111.
- DiDiodato, G., Hassan, S., & Cooley, K. (2021). Elicitation of stakeholder viewpoints about medical cannabis research for pain management in critically ill ventilated patients: A Q-methodology study. *PLoS ONE*, 16(3). pp. 1-11.
- Dills, A. K., Goffard, S., Miron, J., & Partin, E. (2021). The Effect of State Marijuana Legalizations: 2021 Update. *Cato Institute, Policy Analysis*, 908, pp. 1-40.
- Erickson, B (2020). Cannabis research stalled by federal inaction. US scientists face numerous barriers to studying health effects of cannabis. *C&EN* 98(25), pp. 2-10.
- Ferraiolo, K. (2007) From Killer Weed to Popular Medicine: The Evolution of American Drug Control Policy, 1937-2000. *Journal of Policy History*, 19(2), pp. 147 - 179.
- Fromhold-Eisebith, M. & Werker, C. (2013). Universities' functions in knowledge transfers: A geographical perspective. *The Annals of Regional Science*, 51, pp. 621-643.
- Ghiabi, M., Maarefvand, M., Bahari, H., & Alavi, V. (2018). Islam and cannabis: Legalisation and religious debate in Iran. *International Journal of Drug Policy*, 56, pp. 121-127.
- Grech, V. (2019). Towards evidence-based medical cannabis. *Malta Medical Journal* 31(2), pp. 3-8.
- Grey, S. (2016). Cannabis and spirituality. Park Street Press, Rochester, Vermont.
- Hasse, J. (2019.). U.S. Universities offering cannabis - focused graduate programs and masters. *Forbes*, July 17.
- Harris, K., Matin, W. (2021). Persistent Inequities in Cannabis Policy. *The Judges' journal*. 60(1), pp. 9-13.
- HMS Communications (2019). \$9 million donation earmarked for cannabis research. *The Harvard Gazette*.

- Hill, K.P., & Palastro, M.D. (2017). Medical cannabis for the treatment of chronic pain and other disorders: misconceptions and facts. *Poli Arch Intern Med*, pp. 1-5
- Hillerbrand, R., & Werker, C. (2019). Values in University–Industry Collaborations: The Case of Academics Working at Universities of Technology. *Science & Engineering Ethics*, 25(6), pp. 1633–1656.
- Ipsos, (2020) Universities: Perceptions impacts and benefits - Higher Education around the world. Fulbright Commission, University of California and King's College London, Survey.
- Kilmer, B. (2019). How will cannabis legalization affect health, safety, and social equity outcomes? It largely depends on the 14 Ps. *American Journal of Drug & Alcohol Abuse*, 45(6). pp. 664–672.
- Kedia, B. L., Clampit, J., & Gaffney, N. (2014). Globalizing Historically Black Business Schools: A Case Study of the Application of Modern Pedagogical Theories of Internationalizing Higher Education. *Journal of Teaching in International Business*, 25(3), 214–234.
- Kruger, D., Kruger, J.S., Bednarczyk, E.M., & Prescott Jr., W.A. (2021) Cannabis education in United States Pharmacy Colleges and Schools Journal of the American College of Clinical Pharmacy. *Advances in Clinical Pharmacy Education & Training*.
- Lashley, K., & Pollock, T. G. (2020). Waiting to Inhale: Reducing Stigma in the Medical Cannabis Industry. *Administrative Science Quarterly*, 65(2), 434–482.
- Lee, M. J., Rittschof, C. C., Greenlee, A. J., Turi, K. N., Rodriguez-Zas, S. L., Robinson, G. E., Cole, S. W., & Mendenhall, R. (2021). Transcriptomic analyses of black women in neighborhoods with high levels of violence. *Psych neuroendocrinology*, 127, pp. 1-8.
- Mishra, S. (2020) Social networks, social capital, social support, and academic success in higher education: A systematic review with a special focus on 'underrepresented' students. *Educational Research Review* 29(100301), pp. 1-24.
- Musto, D.F. (1991). Opium, cocaine, and marijuana in American history. *Scientific American* 265(1), pp. 20–27.
- OECD. (2020, June 18). Resourcing higher education: Challenges, choices, and consequences. OECD Report, pp. 1-168.
- Parker, S. (2020). The future of higher education in a disruptive world. KPMG International Report, pp. 1-30.
- Prigge, G. W. (2005). University-Industry partnerships: What do they mean to universities? A review of the literature. *Industry and Higher Education*, 19(3). pp. 221-229.
- Rankin, J., Garrett, R., & MacGill, B., (2021). Critical encounters: Enacting social justice through creative and body-based learning." *Australian Educational Researcher*, 48(2), pp. 281–302
- Rahwanji, M. (2019). Hash'ing out inequality in the legal recreational cannabis industry. *Northwestern Journal of International Law & Business* 39(3), pp. 333–357.
- Schwartz, J. (2020). *Work disrupted: Opportunity, resilience, and growth in the accelerated future of work*. Wiley, New Jersey, USA.
- Singh, R.P., Knox, E.L., & Crump, M.E.S. (2008). Opportunity recognition differences between black and white nascent entrepreneurs: A test of Bhave's model. *Journal of Developmental Entrepreneurship*, 13(1), pp. 59-75.
- Taneja, H. (2018). *Unscaled: How AI and a new generation of upstarts are creating the economy of the future*. Clays Ltd. St Ives plc, Great Britain.
- Terry, C.E. (1915). The Harrison Anti-Narcotic Act. *American Journal of Public Health* 5(6), pp. 518.
- Tholen, G, Relly, S.J., Warhurst, C., & Commander, J. (2016). Competency development in business graduates: An industry-driven approach for examining the alignment of undergraduate business education with industry requirements. *British Educational Research Journal*, 42(3), pp. 508-523.
- Vannabouathong, C., Zhu, M., Chang, Y., & Bhandari, M. (2021). Can medical cannabis therapies be cost-effective in the non-surgical management of chronic knee pain? *Clinical Medicine Insights: Arthritis & Musculoskeletal Disorders*, 14, pp. 1-10.
- Vitiello, M. (2021). The war on drugs: moral panic and excessive sentences. *Cleveland State Law Review*, 69(2), pp. 441–483.
- Watenberg, A. (2021) Cannabis and the Environment: What Science Tells Us and What We Still Need to Know. *Environ. Sci. Technol. Lett.* 8 (2), 98–107
- Zolotova, Y. (2021) Medical cannabis education among healthcare trainees: A scoping review. *Complementary Therapies in Medicine*, 58, (102675), pp. 1-8.