The Theory of Reasoned Action: Influences on College Students’ Behaviors Regarding Recently Legalized Recreational Marijuana in the State of Nevada

A thesis submitted in partial fulfillment of the requirements for the degree of Bachelor of Science in Community Health Sciences and the Honors Program

by

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THE HONORS PROGRAM

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BACHELOR OF SCIENCE, COMMUNITY HEALTH SCIENCES

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May, 2018
Abstract

Using the Theory of Reasoned Action (TRA), which states that the behaviors of an individual result from their attitude about the behavior and the subjective norm associated with the behavior (Ajzen & Fishbein, 2002), this study examines whether patterns of marijuana use are associated with constructs from the TRA among college students in Nevada after recreational marijuana legalization. Using data from a survey of 844 University of Nevada, Reno students, I calculated frequencies and used chi-squared tests to compare the independent variables across marijuana use patterns: never used, used before the law legalizing recreational marijuana but not after, used after the law but not before, and used before and after the law. Marijuana use patterns were statistically associated with TRA constructs and students who only used after the law as well as those who used before and after the law had more favorable attitudes and subjective norms regarding marijuana use and lower perceived risk of marijuana use than those who never used or only used before the law.
Acknowledgements

I would like to thank my parents for their tireless dedication to my education and success. This work would not have been possible without the support and guidance of my faculty mentors, Dr. Karla Wagner and Dr. Jennifer Pearson, from the School of Community Health Sciences at the University of Nevada, Reno (UNR). Additionally, this research was greatly supported by Dr. Veronica Dahir and Jordan Clark from The Nevada Center for Surveys, Evaluation, and Statistics (CSES), Dr. Melisa Choroszy from the UNR Enrollment Services, and Dr. Alison Johnson as an Honors writing consultant.
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Introduction

My field of study for my undergraduate degree is community health sciences with an emphasis in public health. My coursework has emphasized public health interventions and prevention strategies regarding the use and abuse of both legal and illegal substances, chemicals, and medications. Medical marijuana was legalized in Nevada in 2000, but the first Nevada medical dispensary opened in 2015 (Bessette, 2015). Effective January 1, 2017, marijuana was legalized for recreational use in the state of Nevada (Richardson, 2016). Using the Theory of Reasoned Action (TRA), which states that the behaviors of an individual result from their attitude about the behavior and the subjective norm associated with the behavior (Ajzen & Fishbein, 2002), this study examines whether patterns of marijuana use are associated with constructs from the TRA among college students in Nevada after recreational marijuana legalization. This research seeks to understand whether or not college students’ perceptions of legalized recreational marijuana and the change in their community’s environment are associated with their marijuana use. Healthcare providers and university personnel can use the findings from this study to help develop substance abuse intervention programs for college students.

To answer my research question, I formulated survey questions that would assess constructs from the Theory of Reasoned Action such as attitudes, subjective norms, perceived risk of use, and environmental constraints. For example, in the context of my application of the TRA, if one had a supportive attitude towards marijuana use and thought that their friends and family supported their use of marijuana, then they would be more likely to use marijuana. I created a survey on Qualtrics and sent the survey link to a stratified random sample of undergraduate and graduate students at the University of Nevada, Reno (UNR) via email. I
randomly selected 1,000 participants from each class standing (i.e. Freshmen, Sophomores, Juniors, Seniors, and graduate students). This yielded a sample of 5,000 students receiving the link to the survey. After duplicate and inactive email addresses were filtered out of the sample, I emailed 4,342 recipients and 844 responded, yielding a 19.44% response rate. Questions in the survey addressed: demographics, history of use of marijuana for medical and non-medical purposes, how students perceive their family/friends to use and approve/disapprove marijuana use, students’ beliefs regarding benefit or harm of marijuana towards health, student support of recreational marijuana legalization, and intent to use marijuana for non-medical purposes in the future. The study was approved by the University of Nevada, Reno Institutional Review Board (1084568-4).

I measured these variables through an online survey consisting of 32 questions. Data analyses revealed college students’ perceptions of marijuana policy and whether their use of marijuana is associated with their perceptions during this transition in their community. This study had several hypotheses in regards to how the variables of the Theory of Reasoned Action were correlated with marijuana use (Figure 1) (Table 1).
Figure 1. The Theory of Reasoned Action model (H connotes the various hypotheses associated with the TRA in relation to marijuana use)
Table 1. Hypotheses relating to the variables of the Theory of Reasoned Action

<table>
<thead>
<tr>
<th>Theory of Reasoned Action Variables</th>
<th>Hypotheses</th>
</tr>
</thead>
<tbody>
<tr>
<td>H.1 - Subjective Norms</td>
<td>If one perceives that family and friends use or support the use of marijuana for non-medical purposes, then they will be more likely to use marijuana.</td>
</tr>
<tr>
<td>H.2 - Perceived Risk of Use Towards Health</td>
<td>If one does not perceive marijuana use for non-medical purposes as a risk to their health, then they will be more likely to use marijuana.</td>
</tr>
</tbody>
</table>
| H.3 - Attitude Towards the Behavior on Individual and Population Levels | If one thinks that it is acceptable for themselves to use marijuana for non-medical purposes, then they will be more likely to use marijuana.  
If one thinks that it is acceptable for others to use marijuana for non-medical purposes, then they will be more likely to use marijuana. |
| H.4 - Environmental Constraints for Access and Purchase of Marijuana | If one has greater access physically (defined as being able to purchase marijuana from a dispensary) to use marijuana for non-medical purposes, then they will be more likely to use marijuana.  
If one has greater access financially (defined as dispensary prices being the same or less expensive than other sources) to use marijuana for non-medical purposes, then they will be more likely to use marijuana. |
Historical Background

Marijuana has had a long history of use in the United States regardless of being legal or illegal. Virginia, Connecticut, and Massachusetts colonies required the farming of hemp in the early 1600s (Siff, 2014). However, marijuana was not generally used recreationally before the early 1900s (Marijuana Timeline, 2014). During the Mexican Revolution, immigrants who used marijuana recreationally influenced American use (Siff, 2014). Due to the Great Depression’s high rates of unemployment, a resentment of Mexican immigrants grew along with negative societal views of recreational marijuana use (Siff, 2014). As a result, in 1931, 29 states made marijuana illegal for consumption (Marijuana Timeline, 2014).

The first nationwide federal law regarding marijuana prohibition was the Marijuana Tax Act of 1937, which taxed the sale and possession of hemp products so that all non-industrial uses of marijuana were criminalized (Siff, 2014). During World War II industrial hemp was cultivated and continued to be produced until 1957 (Siff, 2014). Not long after, in 1970, the Controlled Substances Act was passed to repeal the Marijuana Tax Act, making marijuana a Schedule I drug (National Conference of State Legislatures, 2017). This designation indicated that marijuana did not have medical use and could be abused similar to drugs like heroin and LSD (National Conference of State Legislatures, 2017). However, in 1972, the National Commission on Marijuana and Drug Abuse recommended partial prohibition including reduced penalties for possession of a small amount of marijuana (National Commission on Marihuana and Drug Abuse, 1973). Regardless, the political administration under President Nixon did not alter the policy (National Commission on Marihuana and Drug Abuse, 1973).

It was not until 1996 that California was the first state to legalize medical marijuana use, under the Compassionate Use Act, for those with severe illness (National Conference of State
Legislatures, 2017). Within the last two decades, several states have legalized regulated medical marijuana for distribution and use by those who qualify by obtaining a medical marijuana card with physician approval (State Marijuana Laws in 2017 Map, 2017). In 2014, there were 182.5 million users of marijuana worldwide, or people who used at least once during this time period for medicinal and nonmedicinal purposes (World Drug Report, 2016). Additionally, according to the 2013 National Survey on Drug Use and Health, 80.6% of drug users used marijuana (U.S. Department of Health and Human Services, 2014). Also in 2013, daily marijuana use increased from 5.1 million people to 8.1 million people since 2007 (U.S. Department of Health and Human Services, 2014). The survey revealed that 7.1% of 12 to 17 year olds were past 30-day users of marijuana (U.S. Department of Health and Human Services, 2014). However, since 2014, recreational marijuana has become legalized in several states including Colorado, California, Oregon, Washington, and Nevada (State Marijuana Laws in 2017 Map, 2017). In a 2015 National Survey on Drug Use and Health, marijuana was the most commonly used drug in the U.S. regardless of its legality (Substance Abuse Center for Behavioral Health Statistics and Quality, 2016).

The movement to legalize marijuana use recreationally in the state of Nevada was long standing. After medical marijuana use was legalized in Nevada in 2000, the Nevada Decriminalization of Marijuana Amendment was on the ballot in 2002, but was defeated (Nevada Decriminalization of Marijuana Amendment, Question 9). In 2006, the Nevada Marijuana Initiative was included on the Nevada ballot but was defeated, yet again (Nevada Marijuana Initiative, Question 7). However, this does not attest to the drug’s unpopularity.

Although medical marijuana has been legal in the state of Nevada since 2000, the first medical marijuana dispensary did not open until 2015 (Bessette, 2015). Thus, Nevada is unique
in that its medical marijuana dispensary infrastructure is very limited and new, versus other states that have had dozens of medical dispensaries already established before recreational marijuana was legalized. Effective January 1, 2017, marijuana was legalized for recreational use in the state of Nevada (Richardson, 2016). A key argument that was used to legalize recreational marijuana in 2017 was that legalization would create thousands of additional jobs in the industry as well as millions in tax revenue (Lochhead, 2018). The *Las Vegas Review-Journal* reported that “Marijuana tax revenue is projected to bring in $40 million to schools over the next two years” (Pak-Harvey, 2017). Therefore, the state of Nevada is undergoing tremendous changes in its cities and local communities as numerous recreational dispensaries are being built and as the access to marijuana increases. As of March 2018, eleven dispensaries were located just in Washoe County, which includes the city of Reno: Blüm, Greenleaf Wellness, Kanna, Mynt Cannabis Dispensary, Nuleaf, two Reef Dispensaries, Rise Dispensary, Sierra Wellness, Silver State Relief, and The Dispensary (State of Nevada Department of Taxation, 2018).
Medical marijuana use first became legalized in the United States in California in 1996 (National Conference of State Legislatures, 2017). Since then, 28 states and territories, including Washington D.C., Puerto Rico, and Guam, have created similar laws (National Conference of State Legislatures, 2017). These laws allowed for the consumption of marijuana products for those who have a physician approved medical need and a medical marijuana card (National Conference of State Legislatures, 2017). On June 1st, 2017, legal recreational marijuana became available in Nevada, following recreational legalization in Colorado, Oregon, and California (State Marijuana Laws in 2017 Map, 2017). In Nevada, those over the age of 21 who are not enrolled in the Nevada medical marijuana program can legally possess up to one ounce of marijuana (The Official State of Nevada, 2017). Nevadans over the age of 21 can also grow up to 6 marijuana plants in their home if they live at least 25 miles from a marijuana dispensary (The Official State of Nevada, 2017). However, it is still illegal to use or display marijuana publicly (The Official State of Nevada, 2017). This Nevadan law, NRS 453D – Regulation and Taxation of Marijuana is included in Appendix A. Today, with this legislative change and eleven operating dispensaries in Washoe County alone, marijuana is much more accessible to Nevadans over 21 years old (State of Nevada Department of Taxation, 2018). Therefore, I conducted a survey to measure college students’ perceptions of recreational marijuana in Nevada using constructs from the Theory of Reasoned Action (TRA) to determine if TRA constructs are associated with marijuana use patterns.

Since recreational marijuana has been legalized in some states, a new field of research focusing on marijuana as a legal consumer product has opened up to the scientific community in
the United States. My research concerns the relationship between social norms in the context of recreational marijuana legalization in the state of Nevada and college students’ perceptions and use of recreational marijuana. The Theory of Reasoned Action was developed by the psychologists Martin Fishbein and Icek Ajzen in 1967 (Ajzen & Fishbein, 2002). The theory explains how human attitudes and intentions influence behaviors or actions (Ajzen & Fishbein, 2002). By measuring individuals’ attitudes, perceived social norms, perceived risks associated with the behavior, and the environmental constraints that may influence the prevalence of the behavior, I investigated what TRA constructs were correlated with recreational marijuana use in University of Nevada, Reno students.

Several studies using the TRA have informed my research. The research conducted by Sayeed, Fishbein, Hornik, Cappella, & Ahern (2005) (including one of the founders of the Theory of Reasoned Action) used the model of behavior change to anticipate the intent to use marijuana in 600 adolescents in the U.S. This research was one of the first to use the Theory of Reasoned Action to focus on adolescent marijuana use as many previous studies focused on young adults. The authors found that attitudes and social norms influenced marijuana use (Sayeed et al., 2005). The analysis in this study discussed how to utilize the Theory of Reasoned Action to plan marijuana use interventions by targeting the constructs of attitudes and social norms among adolescents (Sayeed et al., 2005). The researchers suggested that intervention messages should reveal the negative outcomes of marijuana use in order to alter TRA constructs and decrease the behavior (Sayeed et al., 2005).

The TRA was also used by Laflin, Moore-Hirschl, Weis, & Hayes (1994) who, similar to the study above, studied social norms along with attitude and perceived risk of use in 2,074 high school and college students. The authors focused on the association between greater social
acceptability and lowered perceived risk with increased marijuana use (Laflin et al., 1994). Morrison, Golder, Keller, & Gillmore (2002) performed a more recent study that focused especially on attitudes towards marijuana use using the TRA. They investigated whether attitudes and social norms predicted intent to use marijuana in mothers who were pregnant at age 17 or younger. They found that the respondent’s personal attitude toward using marijuana was a stronger predictor of intent to use marijuana than social norms. This study also found that prior marijuana use was directly related to intent to use marijuana and subsequent use six months later. A large weakness of this study, however, was that the population sample was not randomly selected and therefore may not be representative of a larger young mother population (Morrison et al., 2002).

Changing attitudes, lower perceived risk, and greater social acceptability regarding marijuana use have resulted in rising concerns over increased use, especially among adolescents. Before 1996 and the legalization of medical marijuana in the state of California, there was a huge debate over whether or not legalizing marijuana for medical purposes increases the use of marijuana overall (Miech, Johnston, O’Malley, Bachman, Schulenberg, & Patrick, 2015). One study used data from four Harvard School of Public Health surveys from 119 colleges and examined changes in drug use among college students. Researchers found that between 1993 and 2001 past year marijuana use increased from 23% to 30% and lifetime marijuana use increased from 41% to 47% (Mohler-Kuo, Lee, & Wechsler, 2003). Additionally, Wall, Poh, Cerdá, Keyes, Galea, & Hasin (2011) found that adolescent marijuana use was higher in states with medical marijuana laws between 2002 and 2008. This study included data from 23,000 twelve to seventeen-year olds in the U.S. and authors attributed the rise in use was partly due to lower perceived risk of use in the adolescent population. The authors stated that if medical marijuana is
more available to the public in certain states, then the drug could be easier to access versus in states where marijuana remained completely illegal (Wall et al., 2011).

However, a replication study by Harper, Strumpf, & Kaufman (2012) showed little evidence that passing medical marijuana laws affects marijuana use. This study used state-level estimates of marijuana use from the National Survey on Drug Use and Health and found that the legalization of medical marijuana had no effect on perceived riskiness of use or intent to use. This replication research stated that the original study’s findings may be biased because the states that had passed medical marijuana laws already had a higher prevalence of use and lower perceptions of risk before legalization (Harper, Strumpf, & Kaufman, 2012).

At the time these studies were being conducted, marijuana was the most commonly used illegal drug in the United States (Cerdá, Wall, Keyes, Galea, & Hasin, 2012). Cerdá et al. (2012) examined a national survey of 34,653 adults above the age of 18 and a yearly survey of 68,000 people over the age of 12 in the U.S. By measuring past cannabis use, abuse, and dependence, these researchers found that states with medical marijuana laws had higher marijuana use than states without legalization. This was a similar finding to Wall et al. (2011) but a contradictory finding to Harper, Strumpf, & Kaufman (2012). However, the higher risk for marijuana abuse/dependence in medically legalized states could have been due to the higher rates of marijuana use in those states in general. Additionally, because the study used cross-sectional data, researchers could not prove a causal relationship between medical marijuana legalization and increased risk of marijuana use (Cerdá et al., 2012).

With legalized recreational marijuana now available in several states, including Nevada, marijuana research is more relevant to U.S. populations. However, research is still limited due to how recent this focus is. Studies have found that marijuana has utility in medical treatments such
as reducing chronic pain (Woolridge, Barton, Samuel, Osorio, Dougherty, & Holdcroft, 2005; Ellis, Toperoff, Vaida, Brande, Gonzales, Gouaux, & Atkinson, 2008; Russo, 2008). While there are several studies addressing the medical applications of marijuana, there are not many that focus on the perceptions of use of recreational marijuana.

One study from the state of Washington, which legalized recreational marijuana in 2012, looked at 115 families to examine parental and adolescent perceptions of recreational marijuana use (Mason, Hanson, Fleming, Ringle, & Haggerty, 2015). This study found that participant perceptions towards recreational marijuana use changed very little after legalization. Additionally, participants were uncertain about the specifics of what the new policy entailed. By measuring perceptions and use patterns of participants regarding recreational marijuana, these researchers used constructs from the TRA, though they did not specify this as their explicit theoretical orientation (Mason et al., 2015). Research that specifically uses the TRA regarding recreational marijuana use is extremely limited, especially among college students. My research, which applies this model to recreational marijuana use, will be used as preliminary data for further research into substance use behaviors and motivations by researchers in the School of Community Health Sciences at the University of Nevada, Reno.
Methodology

Model

This study conducted a survey with a stratified random sample of students at the University of Nevada, Reno to examine how constructs from the Theory of Reasoned Action (TRA) were associated with marijuana use in the context of Nevada’s recent legalization of recreational marijuana. I invited 4,342 participants, of whom 844 completed the survey, yielding a 19.44% response rate. My overarching research question was whether college students’ perceptions of marijuana use, marijuana policy, and change in their community’s environment and social norms was associated with their own marijuana use. To answer this research question, I used variables from the TRA, which states that the behaviors of an individual result from their attitude of the behavior and the subjective norm associated with the behavior (Ajzen & Fishbein, 2002). Variables from this theory not only included attitude and subjective norms but also environmental constraints such as cost and age limitations, perceived risk of a behavior, and intent to perform a behavior. I measured these variables through an online survey consisting of 32 questions, which is included in Appendix A. The study was approved by the Institutional Review Board at the University of Nevada, Reno (1084568-4).

Survey Design

I chose to use a survey format for my research because it provided the best way to collect a large sample size of college students. A survey is a quick and easy way for people to participate in research. Additionally, an online survey provides anonymity, where participants can easily state their honest opinions and behaviors versus an in-person interview which might
have altered responses due to fear or embarrassment. Survey responses were also more quantifiable than an interview’s free responses. For example, I assigned number values to each response in the survey questionnaire to export data from the survey. I chose to focus on collecting quantifiable data because the numerical data allowed me to statistically test for significant associations between TRA constructs and marijuana use patterns in UNR students. The focus on quantifiable data gave me a place to spearhead analyzing how a large, general population thinks about and uses marijuana in its new legalized form. In this study, collecting quantifiable data versus qualitative data allowed for more responses which could lead to more generalizable findings.

Any survey responses completed by participants under the age of 18 were not included in the research because minors are unable to provide informed consent. The answers submitted to the first question of the survey regarding current age filtered out underage participants. Although marijuana purchase and possession is illegal for anyone under the age of 21, it was important to collect data on students over the age of 18 to gather more representative data on the population of a college campus where students under the legal age for use were still accessing and using the drug similar to studies on alcohol use amongst a college population.

**Measures**

I developed my survey questions to measure the variables of the TRA based on previous research (Table 2). I analyzed the survey questions of many sources during my literature review to inform my survey questions and to show consistency with past research. A copy of the survey is included in Appendix A.
### Table 2. Sources used to develop the survey questionnaire

<table>
<thead>
<tr>
<th>Theory Of Reasoned Action Variables</th>
<th>Survey Question Number(s) Addressing TRA Variable</th>
<th>Source Supporting Question Topic, Wording, or Response Options</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Friends – Perceived Use and Support of the Behavior: 12, 14</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Behavior Specific: 17, 18</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use After Legalization: 20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use in the Past 30 Days: 21</td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td>---------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Use in the Next 6 Months: 23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Purchasing from a Dispensary: 26, 27, 28, 29, 30</td>
<td></td>
</tr>
</tbody>
</table>

Participants

After requesting the email addresses of University of Nevada, Reno undergraduate and graduate students from Enrollment Services, I designed the survey on Qualtrics and sent its link to a stratified random sample via email. Through a Microsoft Excel function, the program randomly selected 1,000 participants from each class standing (i.e. Freshmen, Sophomores, Juniors, Seniors, and Graduate Students). This led to a total sample population of 5,000 students receiving the link to the survey within the email recruitment script included in Appendix A. To increase the response rate, I offered participants the opportunity to enter their email addresses into a raffle to win one out of fifty available $10 Starbucks gift cards. After duplicate and inactive email addresses were filtered out of the sample, the link reached 4,342 recipients and 844 responded, yielding a 19.44% response rate. I sent out one reminder per week after the survey was first deployed to those who had not yet completed the survey. The survey was available for one month. To protect the anonymity of respondents, I collected the email addresses to notify raffle winners in a separate Qualtrics survey that was not linked to the original survey responses. All students had to be over 18 years old to participate and be able to read English as
stated in the consent information script provided at the beginning of the survey and included Appendix A.

**Analysis**

Through survey questions regarding marijuana use (Questions 19-21), I categorized students based upon their personal marijuana use behaviors: students who have never used marijuana, students who ever used marijuana before recreational legalization but not after, students who ever used marijuana after recreational legalization but not before, and students who were persistent users by using marijuana before and after recreational legalization. I analyzed the survey data by computing the mean, median, standard deviation, and frequencies for all of the TRA constructs, including social norms, attitude, and perceived risk of use. Then, I tested for associations between TRA constructs and marijuana use patterns using chi-square tests with the assistance of my mentors. A chi-squared test is used to find significant associations between two variables. Some data from the demographics section, such as options for biological sex and gender, were omitted due to low response rate. For example, intersex, transfemale/transmale, and non-binary did not have a large enough response rate to represent their individual populations in a statistical analysis. I had hypothesized that students who had used marijuana in their lifetime would have more favorable perceptions and attitudes towards marijuana use and recreational legalization than students who had never used marijuana in their lifetime. Furthermore, these favorable perceptions would be associated with the behavior of marijuana use.
Results

This study surveyed 844 students from the University of Nevada, Reno (consisting of a random stratified sample of Freshmen, Sophomores, Juniors, Seniors, and Graduate Students). Of the 844 students who responded to the online survey, 49.29% were over 21 years old, the legal age to use recreational marijuana in Nevada (Table 3). Most respondents were non-Hispanic (n=698), female (n=531), and had never had a medical marijuana card (n=809) (Table 3).

There are several patterns evident in the data collected through this survey. A full 51% of persistent users (those who used both before and after the law) were under the legal age for recreational marijuana use, while 53% of those who used after the law but not before were under the legal age (Table 3). In contrast, 58% of those who had never used were under the legal age. There was also a relatively even distribution of students in all use pattern categories across all class standings. Additionally, most respondents were classified into the two extremes of use patterns in the analysis: never used marijuana (n=309, 36.61%) or persistent users who used before and after the law legalizing recreational marijuana use (n=356, 42.18%) (Table 3).
Table 3. Comparison of demographics among UNR students based on marijuana use behavior (N = 844)¹

<table>
<thead>
<tr>
<th></th>
<th>Never Used</th>
<th>Used before the law, not after</th>
<th>Used after the law, not before</th>
<th>Used before and after the law</th>
<th>Total</th>
<th>p-value*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>Overall</td>
<td>309</td>
<td>36.61</td>
<td>128</td>
<td>15.17</td>
<td>51</td>
<td>6.04</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illegal (18-20)</td>
<td>180</td>
<td>58.25</td>
<td>39</td>
<td>30.47</td>
<td>27</td>
<td>52.94</td>
</tr>
<tr>
<td>Legal (≥21)</td>
<td>129</td>
<td>41.75</td>
<td>89</td>
<td>69.53</td>
<td>24</td>
<td>47.06</td>
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<tr>
<td>Class Standing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshman</td>
<td>70</td>
<td>22.95</td>
<td>17</td>
<td>13.28</td>
<td>15</td>
<td>30.00</td>
</tr>
<tr>
<td>Sophomore</td>
<td>68</td>
<td>22.30</td>
<td>16</td>
<td>12.50</td>
<td>9</td>
<td>18.00</td>
</tr>
<tr>
<td>Junior</td>
<td>62</td>
<td>20.33</td>
<td>20</td>
<td>15.63</td>
<td>4</td>
<td>8.00</td>
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<tr>
<td>Senior</td>
<td>54</td>
<td>17.70</td>
<td>31</td>
<td>24.22</td>
<td>12</td>
<td>24.00</td>
</tr>
<tr>
<td>Graduate Student</td>
<td>51</td>
<td>16.72</td>
<td>44</td>
<td>34.38</td>
<td>10</td>
<td>20.00</td>
</tr>
<tr>
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<td></td>
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<tr>
<td>No</td>
<td>255</td>
<td>83.33</td>
<td>102</td>
<td>81.60</td>
<td>46</td>
<td>90.20</td>
</tr>
<tr>
<td>Yes</td>
<td>51</td>
<td>16.67</td>
<td>23</td>
<td>18.40</td>
<td>5</td>
<td>9.80</td>
</tr>
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<td>Biological Sex</td>
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<tr>
<td>Male</td>
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¹ The total sample size varied throughout the survey due to incomplete survey questionnaire submissions. Total sample sizes for each survey question were: age (N = 844), class standing (N = 839), Latino or Hispanic (N = 835), biological sex (N = 838), gender (N = 821), ever had a medical marijuana card (N = 841)

*Comparisons made using Chi-square tests for proportions.
All items regarding social norms, attitudes, and perceived risk were significantly associated with marijuana use patterns (p’s < 0.001) (Table 4). Environmental constraints such as ease of access to marijuana and price of dispensary marijuana versus other sources were also significantly associated with use patterns (p < 0.001); however, the difficulty of buying marijuana from a dispensary was not (p < 0.15) (Table 4).

Regarding attitude, the majority of people who had never used marijuana (59%) as well as those who had only used before the law legalizing recreational use of marijuana but not after (78%) approved of the use of marijuana by their friends (Table 4). However, smaller proportions in those groups reported that they believed their own use of marijuana would be acceptable (27%, 48%). On the other hand, the majority of people who only used after the law but not before (88%, 69%) and persistent users (96%, 88%) approved of marijuana use by their friends and themselves. Concerning marijuana effects on health, 52% of those who had never used marijuana believed it to be harmful towards health, compared to 35% of those who used only before the law and 16% of those who used only after the law. However, 32% of persistent users reported that marijuana is harmful towards health (Table 4).

With respect to subjective norms and perceptions of the use of marijuana by friends, at least half of those who had never used marijuana (63%) and those who only used before the law (50%) reported that only some friends use marijuana (Table 4). In contrast, the majority of those who only used after the law (55%) and persistent users (62%) reported that most of their friends use marijuana. Across all use patterns, respondents reported that the majority of friends would approve of their use of marijuana, while family would not (Table 4).

With regard to environmental constraints, that majority of respondents said that it is “easy” to buy marijuana in a dispensary, and this response did not differ by use pattern (Table 4).
When asked how ease of access changed since legalization, between 42% and 63% of respondents from all use patterns said it is easier since legalization, with respondents who only used after the law change having the highest proportion of those saying it has become easier to access (62%). Most respondents who had never used marijuana reported that the price of dispensary marijuana was the same compared to other sources, while most of those who used only before the law (65%) and persistent users (77%) reported that dispensary marijuana is more expensive (Table 4).
Table 4. Comparison of the Theory of Reasoned Action variables among UNR students based on marijuana use behavior (N = 844)

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<th>Never Used</th>
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Ease of Access After Legalization

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<td>9</td>
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Dispensary Price vs. Other Sources

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*p < 0.003

The total sample size varied throughout the survey due to incomplete survey questionnaire submissions. Total sample sizes for each survey question were: attitude towards my use (N = 836), attitude towards other’s use (N = 839), perceived risk of use towards health (N = 844), friend use (N = 843), family member use (N = 840), friend approval of your use (N = 835), family approval of your use (N = 838), buying dispensary marijuana (N = 758), ease of access after legalization (N = 813), dispensary price vs. other sources (N = 522)

*Comparisons made using Chi-square tests for proportions.
Discussion

This study is one of the first to examine TRA variables in a state that has legalized the use of recreational marijuana. Students who only used after the law was passed as well as those who used before and after the law have more favorable attitudes and subjective norms as well as lower perceived risk of use than those who never used or only used before the law. Research using the Theory of Reasoned Action (TRA) has shown that attitudes and social norms are strong predictors of future marijuana use behavior (Laflin, Moore-Hirschl, Weis, & Hayes, 1994; Morrison, Golder, Keller, & Gillmore, 2002; Sayeed, Fishbein, Hornik, Cappella, & Ahern, 2005). However, these studies were conducted before recreational marijuana was legalized and thus it is not clear whether the findings would be similar in the current era of legalized recreational use. Nevada is experiencing a remodeling of its social, environmental, and political structures as communities are altered by legalized recreational marijuana. Due to the novelty of this recent policy change in a state with very little existing medical marijuana infrastructure, many new health issues could arise in the Nevada population such as marijuana abuse and what constitutes driving under the influence of marijuana. This work and further research could provide critical data that can be used to inform public health efforts in the state.

My findings are consistent with past studies utilizing the TRA as a model to predict behavior in regards to marijuana use. While my study was conducted post recreational marijuana legalization and previous research was conducted prior to recreational legalization, the findings do align. In my research, TRA constructs such as attitude, subjective norms, and perceived risk of use had statistically significant associations with marijuana use patterns. Similarly, Laflin, Moore-Hirschl, Weis, & Hayes (1994) supported the association of TRA variables including...
social norms, attitude, and perceived risk of use in adolescents and young adults with increased marijuana use (Laflin et al., 1994). Additionally, the research conducted by Sayeed, Fishbein, Hornik, Cappella, & Ahern (2005) also used the TRA to anticipate intent to use marijuana in adolescents and comparably found that attitudes and social norms did influence marijuana use patterns (Sayeed et al., 2005).

My research contributes to an understanding of how attitudes and social norms regarding marijuana use are associated with marijuana use in the current era. Findings from this research could influence future marijuana policies and substance abuse interventions as it provides some of the first data from Nevada on college students’ attitudes and behaviors regarding recreational marijuana. This information is critical to know in order to develop effective drug intervention messages that could alter college students’ perceptions about using marijuana for non-medical purposes. However, my study does contain limitations. For example, the data collected was limited to one university in the state of Nevada. Nevada has multiple junior colleges as well as a large university in Las Vegas where the presence of recreational marijuana dispensaries has also altered communities. Therefore, this study might not accurately represent the whole college student population of Nevada. In addition, many studies aim to have an approximately equal amount of male and female participants in order for findings to be more generalizable. While the majority of my participants were female, there are more female students attending UNR than male, so this inequality might actually better represent the student population of UNR. Other possibilities to account for the increased number of female participants may be attributed to the chance that more female students were randomly chosen to receive the link to the survey, more female students could use marijuana versus male students, or female students might be more likely to complete surveys sent via email than their male counterparts. Lastly, there were smaller
populations of participants in the use pattern categories of students who only used before recreational marijuana legalization in addition to those who only used after recreational marijuana legalization. Therefore, this data might also not accurately represent those specific populations.

This study consisted of cross-sectional data, or data collected at one point in time. Consequently, this research could not measure changes in TRA variables before and after the law legalizing recreational marijuana use was passed. Thus, information regarding significant changes in use patterns before and after the law is unknown and requires further investigation if possible. An additional area of further investigation might involve more closely examining attitudes of persistent users, such as having more favorable attitudes towards their own use of marijuana and the use of marijuana by others. Use patterns, including frequency and effect, would be important to determine what constitutes abuse of recreational marijuana. Determining this information would be particularly pertinent since there were similar numbers of persistent users both above and below the legal age to use marijuana for non-medical purposes. Comparing the attitudes of students between the ages of 18 and 21 who are persistent users to legal, adult persistent users may give helpful insight concerning what constitutes abuse. Furthermore, more in depth investigation into the group of students who started using marijuana after recreational legalization could reveal reasons for starting marijuana use as well as determine the extent of their marijuana use, such as using occasionally or frequently.

While limitations are present, this study is one of the first to examine TRA variables in a state that has legalized the use of recreational marijuana. Additionally, this work was able to support that the TRA is a successful model to determine associations of marijuana use patterns in
UNR students. This research will also provide preliminary data for further studies focusing on college students and marijuana use in the School of Community Health Sciences at UNR.
References


https://www.pbs.org/wgbh/pages/frontline/shows/dope/etc/cron.html


Appendix A

SURVEY QUESTIONNAIRE

Note: When answering survey questions, keep in mind the differences between medical and recreational marijuana use in Nevada. Medical use of marijuana is the possession, delivery, production, or use of marijuana to help with the symptoms or effects of a medical condition. Recreational use of marijuana is the possession, delivery, production, or use of marijuana for non-medical purposes.

Demographics:

1. [AGE] How old are you? ___ ___ Years old
   Refuse to Answer (Refuse button)

2. [CLASS] What is your class standing?
   Freshman
   Sophomore
   Junior
   Senior
   Graduate Student
   Refuse to Answer (Refuse button)

3. [RACE] Which racial group(s) do you consider yourself to be in? (Check all that apply).
   Black or African-American
   American Indian or Alaskan Native
   Asian
   Native Hawaiian or Pacific Islander
   White
   Other (Specify) __________
   Refuse to Answer (Refuse button)

4. [ETHNICITY] Are you Latino or Hispanic?
   Yes (1)
   No (0)
   Refuse to Answer (Refuse Button)

5. [SEX] What is your biological sex?
   Male (0)
   Female (1)
   Inter-Sex (2)
   Other (3)
   Refuse to Answer (Refuse button)

6. [GENDER] With which gender do you most closely identify?
Male (0)
Female (1)
Transmale/transman (2)
Transfemale/transwoman (3)
Non-binary (4)
Other (5)
Refuse to Answer (Refuse button)

7. [ORIGIN] From which state are you originally? If you lived in more than one state, choose the one in which you spent the most time. __
   Refuse to Answer (Refuse button)

8. [STATUS_EV] Have you ever had a medical marijuana card?
   Yes (1)
   No (0)
   Refuse to Answer (Refuse button)

9. [STATUS_NOW] Do you currently have a medical marijuana card?
   Yes (1)
   No (0)
   Refuse to Answer (Refuse button)

10. [STATUS_NOW] Do you have a medical condition for which you use marijuana?
    Yes (1)
    No (0)
    Refuse to Answer (Refuse button)

Measuring the Theory of Reasoned Action Variables:

11. How do you think your FAMILY MEMBERS would feel about you using marijuana for non-medical purposes?
    Strongly disapprove (1)
    Disapprove (2)
    Approve (3)
    Strongly approve (4)
    Refuse to Answer (Refuse button)

12. How do you think your FRIENDS would feel about you using marijuana for non-medical purposes?
    Strongly disapprove (1)
    Disapprove (2)
    Approve (3)
    Strongly approve (4)
    Refuse to Answer (Refuse button)
13. Since the law legalizing recreational marijuana went into effect on July 1, 2017, how many of your FAMILY MEMBERS do you think have used marijuana for non-medical purposes, even once or twice?
    None (1)
    Some (2)
    Most (3)
    All (4)
    Refuse to Answer (Refuse button)

14. Since the law legalizing recreational marijuana went into effect on July 1, 2017, how many of your FRIENDS do you think have used marijuana for non-medical purposes, even once or twice?
    None (1)
    Some (2)
    Most (3)
    All (4)
    Refuse to Answer (Refuse button)

15. How beneficial or harmful do you think non-medical marijuana use is to your health?
    Very harmful (1)
    Somewhat harmful (2)
    Neither harmful nor beneficial (3)
    Somewhat beneficial (4)
    Very beneficial (5)
    Refuse to Answer (Refuse button)

16. How supportive are YOU of the recent legislation making recreational marijuana use legal in the state of Nevada?
    Not supportive at all (1)
    Not very supportive (2)
    Somewhat supportive (3)
    Very supportive (4)
    Refuse to Answer (Refuse button)

17. How acceptable do you think it is for OTHERS to use marijuana for non-medical purposes regularly?
    Not acceptable at all (1)
    Not very acceptable (2)
    Somewhat acceptable (3)
    Very acceptable (4)
    Refuse to Answer (Refuse button)

18. How acceptable do you think it is for YOU to use marijuana for non-medical purposes regularly?
    Not acceptable at all (1)
    Not very acceptable (2)
19. BEFORE the law legalizing recreational marijuana went into effect on July 1, 2017, had you ever used marijuana for non-medical purposes?
   Yes (1)
   No (0)
   Refuse to Answer (Refuse button)

20. AFTER the law legalizing recreational marijuana went into effect on July 1, 2017, have you used marijuana for non-medical purposes?
   Yes (1)
   No (0)
   Refuse to Answer (Refuse button)

21. During the past 30 days, have you used marijuana for non-medical purposes?
   Yes (1)
   No (0)
   Refuse to Answer (Refuse button)

21 a. [For P30D Users] In the past 30 days, how have you consumed marijuana? (Check all that apply.)
   Smoked (1)
   Vaped (2)
   Edible (3)
   Some other way (4)
   Refuse to Answer (Refuse button)

21 b. [For P30D Users] In the past 30 days, what is the most common way that you consumed marijuana? (Choose one.)
   Smoked (1)
   Vaped (2)
   Edible (3)
   Some Other Way (4)
   Refuse to Answer (Refuse button)

22. How do you think YOUR use of marijuana will change now that recreational use is legal in Nevada?
   It will decrease a lot (1)
   It will decrease a little (2)
   It will not change (3)
   It will increase a little (4)
   It will increase a lot (5)
   Refuse to Answer (Refuse button)

23. During the next 6 months, how likely is it that you will use marijuana for non-medical purposes?
24. Since the law legalizing recreational marijuana went into effect on July 1, 2017, how do you think YOUR ease of marijuana access has changed?
   - It is a lot more difficult to access (1)
   - It is somewhat more difficult to access (2)
   - No change (3)
   - It is somewhat easier to access (4)
   - It is a lot easier to access (5)
   - Refuse to Answer (Refuse button)

25. If you wanted to buy marijuana right now from a dispensary, how difficult would it be?
   - Hard (1)
   - Easy (0)
   - Refuse to Answer (Refuse button)

26. BEFORE the law legalizing recreational marijuana went into effect on July 1, 2017, had you ever purchased marijuana from a dispensary?
   - Yes (1)
   - No (0)
   - Refuse to Answer (Refuse button)

27. SINCE the law legalizing recreational marijuana went into effect on July 1, 2017, have you purchased marijuana from a dispensary?
   - Yes (1)
   - No (0)

28. BEFORE the law legalizing recreational marijuana went into effect on July 1, 2017, had you ever purchased marijuana from a source OTHER THAN a dispensary?
   - Yes (1)
   - No (0)
   - Refuse to Answer (Refuse button)

29. SINCE the law legalizing recreational marijuana went into effect on July 1, 2017, have you purchased marijuana from a source OTHER THAN a dispensary?
   - Yes (1)
   - No (0)
   - Refuse to Answer (Refuse button)

30. How does the price of dispensary marijuana compare to other sources?
   - Less expensive (1)
   - About the same (2)
More expensive (3)
Refuse to Answer (Refuse Button)

The next few questions are about cigarette smoking ONLY.

31. Have you EVER smoked a cigarette, even 1 time?
   Yes (1)
   No (0)
   Refuse to Answer (Refuse button)
31 a. [IF EVER SMOKER] On how many of the past 30 days have you smoked a cigarette?
   [Drop down list, 0-30]
   Refuse to Answer (Refuse Button)

The next few questions are about e-cigarette use/vaping of nicotine ONLY. There are many names for e-cigarettes, including vape pens, mods, and vapes. Some common brands include JUUL, Blu, Vuse, and MarkTen, but there are many more.

32. Have you ever used an e-cigarette or vape, even 1 time?
   Yes (1)
   No (0)
   Refuse to Answer (Refuse button)
32 a. [IF EVER VAPER = 1] On how many of the past 30 days have you used an e-cigarette or vape?
   [Drop down list, 0-30]
   Refuse to Answer (Refuse Button)

33. If you would like to enter a raffle for a $10 gift card to Starbucks, enter your email address below. We will randomly select 50 winners. Email addresses will be kept separate from your survey responses and will be maintained on a password-protected computer. Email addresses entered here will be destroyed 1 month after the end of this study.
   [Insert Text]
   Refuse to Answer (Refuse Button)

34. There may be future opportunities to participate in research studies such as this one. If you would like to be contacted with future research opportunities, enter your email below. Email addresses will be kept separate from your survey responses and will be maintained by a researcher in a password-protected computer. Email addresses provided here will only be used to contact you in the future if additional research opportunities arise.
   [Insert Text]
   Refuse to Answer (Refuse Button)

Thank you for your participation in this study!

Please be sure to consult state law regarding the legal status of marijuana in Nevada, including age limits and rules related to public consumption and drugged driving.
If you or someone you know have concerns about drug or alcohol use or are interested in seeking treatment for drug or alcohol use, you can access resources from:

- Northern Nevada Hopes
  https://www.nnhopes.org/contact/
- Change Point
  https://www.nnhopes.org/patients/services/change-point/
- Substance Abuse Prevention and Treatment Agency (SAPTA)
  http://dpbh.nv.gov/Programs/ClinicalSAPTA/dta/Providers/SAPTAProviders/
NRS CHAPTER 453D - REGULATION AND TAXATION OF MARIJUANA

NRS 453D.010 Short title. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

NRS 453D.020 Findings and declarations. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

NRS 453D.030 Definitions. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

NRS 453D.100 Effect of chapter. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

NRS 453D.110 Exemption from state or local prosecution for certain acts involving marijuana and marijuana paraphernalia. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

NRS 453D.120 Additional exemption from state or local prosecution for certain acts involving marijuana and marijuana products. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

NRS 453D.130 No crime for certain acts involving marijuana paraphernalia. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

NRS 453D.140 Enforcement of contracts. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

NRS 453D.200 Duties of Department relating to regulation and licensing of marijuana establishments; information about consumers. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

NRS 453D.210 Acceptance of applications for licensing; priority in licensing; conditions for approval of application; limitations on issuance of licenses to retail marijuana stores; competing applications. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]
NRS 453D.220  Expiration and renewal of licenses. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

NRS 453D.230  Fees. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

NRS 453D.300  Requirements for operation of marijuana establishment; inspection of establishment. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

NRS 453D.400  Violations and penalties. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

NRS 453D.500  Imposition of tax on wholesale sales of marijuana by marijuana cultivation facility. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

NRS 453D.510  Use of proceeds of tax, fees and penalties. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

NRS 453D.600  Severability. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

NRS 453D.010  Short title. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.] This chapter may be cited as the Regulation and Taxation of Marijuana Act.

(Added to NRS by 2016 initiative petition, Ballot Question No. 2)

NRS 453D.020  Findings and declarations. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

1. In the interest of public health and public safety, and in order to better focus state and local law enforcement resources on crimes involving violence and personal property, the People of the State of Nevada find and declare that the use of marijuana should be legal for persons 21 years of age or older, and its cultivation and sale should be regulated similar to other legal businesses.

2. The People of the State of Nevada find and declare that the cultivation and sale of marijuana should be taken from the domain of criminals and be regulated under a controlled system, where businesses will be taxed and the revenue will be dedicated to public education and the enforcement of the regulations of this chapter.
3. The People of the State of Nevada proclaim that marijuana should be regulated in a manner similar to alcohol so that:
   (a) Marijuana may only be purchased from a business that is licensed by the State of Nevada;
   (b) Business owners are subject to a review by the State of Nevada to confirm that the business owners and the business location are suitable to produce or sell marijuana;
   (c) Cultivating, manufacturing, testing, transporting and selling marijuana will be strictly controlled through state licensing and regulation;
   (d) Selling or giving marijuana to persons under 21 years of age shall remain illegal;
   (e) Individuals will have to be 21 years of age or older to purchase marijuana;
   (f) Driving under the influence of marijuana will remain illegal; and
   (g) Marijuana sold in the State will be tested and labeled.

(Added to NRS by 2016 initiative petition, Ballot Question No. 2)

NRS 453D.030 Definitions. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.] As used in this chapter, unless the context otherwise requires:

1. “Community facility” means a facility licensed to provide day care to children, a public park, a public playground, a public swimming pool, a center or facility the primary purpose of which is to provide recreational opportunities or services to children or adolescents, or a church, synagogue, or other building, structure, or place used for religious worship or other religious purpose.

2. “Concentrated marijuana” means the separated resin, whether crude or purified, obtained from marijuana.

3. “Consumer” means a person who is 21 years of age or older who purchases marijuana or marijuana products for use by persons 21 years of age or older, but not for resale to others.

4. “Department” means the Department of Taxation.

5. “Dual licensee” means a person or group of persons who possess a current, valid registration certificate to operate a medical marijuana establishment pursuant to chapter 453A of NRS and a license to operate a marijuana establishment under this chapter.

6. “Excluded felony offense” means a conviction of an offense that would constitute a category A felony if committed in Nevada or convictions for two or more offenses that would constitute felonies if committed in Nevada. “Excluded felony offense” does not include:
   (a) A criminal offense for which the sentence, including any term of probation, incarceration, or supervised release, was completed more than 10 years ago; or
   (b) An offense involving conduct that would be immune from arrest, prosecution, or penalty pursuant to chapter 453A of NRS, except that the conduct occurred before the effective date of chapter 453A of NRS (October 1, 2001), or was prosecuted by an authority other than the State of Nevada.

7. “Locality” means a city or town, or, in reference to a location outside the boundaries of a city or town, a county.

8. “Marijuana” means all parts of any plant of the genus Cannabis, whether growing or not, the seeds thereof, the resin extracted from any part of the plant, and every compound, manufacture, salt, derivative, mixture, or preparation of the plant, its seeds, or resin. “Marijuana” does not include:
(a) The mature stems of the plant, fiber produced from the stems, oil, or cake made from the seeds of the plant, any other compound, manufacture, salt, derivative, mixture, or preparation of the mature stems (except the resin extracted therefrom), fiber, oil, or cake, the sterilized seed of the plant which is incapable of germination; or
(b) The weight of any other ingredient combined with marijuana to prepare topical or oral administrations, food, drink, or other products.

9. “Marijuana cultivation facility” means an entity licensed to cultivate, process, and package marijuana, to have marijuana tested by a marijuana testing facility, and to sell marijuana to retail marijuana stores, to marijuana product manufacturing facilities, and to other marijuana cultivation facilities, but not to consumers.

10. “Marijuana distributor” means an entity licensed to transport marijuana from a marijuana establishment to another marijuana establishment.

11. “Marijuana establishment” means a marijuana cultivation facility, a marijuana testing facility, a marijuana product manufacturing facility, a marijuana distributor, or a retail marijuana store.

12. “Marijuana product manufacturing facility” means an entity licensed to purchase marijuana, manufacture, process, and package marijuana and marijuana products, and sell marijuana and marijuana products to other marijuana product manufacturing facilities and to retail marijuana stores, but not to consumers.

13. “Marijuana products” means products comprised of marijuana or concentrated marijuana and other ingredients that are intended for use or consumption, such as, but not limited to, edible products, ointments, and tinctures.

14. “Marijuana paraphernalia” means any equipment, products, and materials of any kind which are used, intended for use, or designed for use in planting, propagating, cultivating, growing, harvesting, manufacturing, compounding, converting, producing, preparing, testing, analyzing, packaging, repacking, storing, or containing marijuana, or for ingesting, inhaling, or otherwise introducing marijuana into the human body.

15. “Marijuana testing facility” means an entity licensed to test marijuana and marijuana products, including for potency and contaminants.

16. “Process” means to harvest, dry, cure, trim, and separate parts of the marijuana plant by manual or mechanical means, such as sieving or ice water separation, but not by chemical extraction or chemical synthesis.

17. “Public place” means an area to which the public is invited or in which the public is permitted regardless of age. “Public place” does not include a retail marijuana store.

18. “Retail marijuana store” means an entity licensed to purchase marijuana from marijuana cultivation facilities, to purchase marijuana and marijuana products from marijuana product manufacturing facilities and retail marijuana stores, and to sell marijuana and marijuana products to consumers.

19. “Unreasonably impracticable” means that the measures necessary to comply with the regulations require such a high investment of risk, money, time, or any other resource or asset that the operation of a marijuana establishment is not worthy of being carried out in practice by a reasonably prudent businessperson.

(Added to NRS by 2016 initiative petition, Ballot Question No. 2)

NRS 453D.100 Effect of chapter. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]
1. The provisions of this chapter do not permit any person to engage in and do not prevent the imposition of any civil, criminal, or other penalty for:
   (a) Driving, operating, or being in actual physical control of a vehicle, aircraft, or vessel under power or sail while under the influence of marijuana or while impaired by marijuana;
   (b) Knowingly delivering, giving, selling, administering, or offering to sell, administer, give, or deliver marijuana to a person under 21 years of age, unless:
      (1) The recipient is permitted to possess marijuana pursuant to chapter 453A of NRS; or
      (2) The person demanded and was shown bona fide documentary evidence of the majority and identity of the recipient issued by a federal, state, county, or municipal government, or subdivision or agency thereof;
   (c) Possession or use of marijuana or marijuana paraphernalia on the grounds of, or within, any facility or institution under the jurisdiction of the Nevada Department of Corrections;
   (d) Possession or use of marijuana on the grounds of, or within, a school providing instruction in preschool, kindergarten, or any grades 1 through 12; or
   (e) Undertaking any task under the influence of marijuana that constitutes negligence or professional malpractice.

2. The provisions of this chapter do not prohibit:
   (a) A public or private employer from maintaining, enacting, and enforcing a workplace policy prohibiting or restricting actions or conduct otherwise permitted under this chapter;
   (b) A state or local government agency that occupies, owns, or controls a building from prohibiting or otherwise restricting the consumption, cultivation, processing, manufacture, sale, delivery, or transfer of marijuana in that building;
   (c) A person who occupies, owns, or controls a privately owned property from prohibiting or otherwise restricting the smoking, cultivation, processing, manufacture, sale, delivery, or transfer of marijuana on that property; or
   (d) A locality from adopting and enforcing local marijuana control measures pertaining to zoning and land use for marijuana establishments.

3. Nothing in the provisions of this chapter shall be construed as in any manner affecting the provisions of chapter 453A of NRS relating to the medical use of marijuana.

(Added to NRS by 2016 initiative petition, Ballot Question No. 2)

NRS 453D.110 Exemption from state or local prosecution for certain acts involving marijuana and marijuana paraphernalia. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

Notwithstanding any other provision of Nevada law and the law of any political subdivision of Nevada, except as otherwise provided in this chapter, it is lawful, in this State, and must not be used as the basis for prosecution or penalty by this State or a political subdivision of this State, and must not, in this State, be a basis for seizure or forfeiture of assets for persons 21 years of age or older to:

1. Possess, use, consume, purchase, obtain, process, or transport marijuana paraphernalia, one ounce or less of marijuana other than concentrated marijuana, or one-eighth of an ounce or less of concentrated marijuana;

2. Possess, cultivate, process, or transport not more than six marijuana plants for personal use and possess the marijuana produced by the plants on the premises where the plants were grown, provided that:
(a) Cultivation takes place within a closet, room, greenhouse, or other enclosed area that is equipped with a lock or other security device that allows access only to persons authorized to access the area; and

(b) No more than 12 plants are possessed, cultivated, or processed at a single residence, or upon the grounds of that residence, at one time;

3. Give or otherwise deliver one ounce or less of marijuana, other than concentrated marijuana, or one-eighth of an ounce or less of concentrated marijuana without remuneration to a person provided that the transaction is not advertised or promoted to the public; or

4. Assist another person who is 21 years of age or older in any of the acts described in this section.

(Added to NRS by 2016 initiative petition, Ballot Question No. 2)

NRS 453D.120 Additional exemption from state or local prosecution for certain acts involving marijuana and marijuana products. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.] Notwithstanding any other provision of Nevada law and the law of any political subdivision of Nevada, except as otherwise provided in this chapter or the regulations adopted pursuant to NRS 453D.200, it is lawful and must not, in this State, be used as the basis for prosecution or penalty by this State or a political subdivision of this State, and must not, in this State, be a basis for seizure or forfeiture of assets for persons 21 years of age or older to:

1. Possess marijuana and marijuana products, purchase marijuana from a marijuana cultivation facility, purchase marijuana and marijuana products from a marijuana product manufacturing facility, return marijuana or marijuana products to a facility from which they were purchased, transport marijuana and marijuana products to or from a marijuana testing facility, use the services of a marijuana distributor to transport marijuana or marijuana products to or from marijuana establishments, or sell marijuana and marijuana products to consumers, if the person conducting the activities described in this subsection has a current, valid license to operate a retail marijuana store or is acting in the person’s capacity as an agent of a retail marijuana store.

2. Cultivate, harvest, process, package, or possess marijuana, sell marijuana to a marijuana cultivation facility, a marijuana product manufacturing facility, or a retail marijuana store, transport marijuana to or from a marijuana cultivation facility, a marijuana product manufacturing facility, or a marijuana testing facility, use the services of a marijuana distributor to transport marijuana to or from marijuana establishments, or purchase marijuana from a marijuana cultivation facility, if the person conducting the activities described in this subsection has a current, valid license to operate a marijuana cultivation facility or is acting in his or her capacity as an agent of a marijuana cultivation facility.

3. Package, process, manufacture, or possess marijuana and marijuana products, transport marijuana and marijuana products to or from a marijuana testing facility, a marijuana cultivation facility, or a marijuana product manufacturing facility, use the services of a marijuana distributor to transport marijuana or marijuana products to or from marijuana establishments, sell marijuana and marijuana products to a retail marijuana store or a marijuana product manufacturing facility, purchase marijuana from a marijuana cultivation facility, or purchase marijuana and marijuana products from a marijuana product manufacturing facility, if the person conducting the activities described in this subsection has a current, valid license to operate a marijuana product
manufacturing facility or is acting in his or her capacity as an agent of a marijuana product manufacturing facility.

4. Possess marijuana and marijuana products and transfer and transport marijuana and marijuana products between marijuana establishments, if the person transporting the marijuana and marijuana products has a current, valid license to operate as a marijuana distributor or is acting in his or her capacity as an agent of a marijuana distributor.

5. Possess, process, repackage, transport, or test marijuana and marijuana products if the person has a current, valid license to operate a marijuana testing facility or is acting in his or her capacity as an agent of a marijuana testing facility.

6. Lease or otherwise allow property owned, occupied, or controlled by any person, corporation, or other entity to be used for any of the activities conducted lawfully in accordance with this section.

(Added to NRS by 2016 initiative petition, Ballot Question No. 2)

NRS 453D.130 No crime for certain acts involving marijuana paraphernalia. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.] Notwithstanding any other provision of Nevada law and the law of any political subdivision of Nevada, it is not unlawful and shall not be an offense or be a basis for seizure or forfeiture of assets for persons 21 years of age or older to manufacture, possess, use, transport, or purchase marijuana paraphernalia, or to distribute or sell marijuana paraphernalia to a person who is 21 years of age or older.

(Added to NRS by 2016 initiative petition, Ballot Question No. 2)

NRS 453D.140 Enforcement of contracts. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.] It is the public policy of the People of the State of Nevada that contracts related to the operation of marijuana establishments under this chapter should be enforceable, and no contract entered into by a licensee, its employees, or its agents as permitted pursuant to a valid license issued by the Department, or by those who allow property to be used by a licensee, its employees, or its agents as permitted pursuant to a valid license issued by the Department, shall be deemed unenforceable on the basis that the actions or conduct permitted pursuant to the license are prohibited by federal law.

(Added to NRS by 2016 initiative petition, Ballot Question No. 2)

NRS 453D.200 Duties of Department relating to regulation and licensing of marijuana establishments; information about consumers. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

1. Not later than January 1, 2018, the Department shall adopt all regulations necessary or convenient to carry out the provisions of this chapter. The regulations must not prohibit the operation of marijuana establishments, either expressly or through regulations that make their operation unreasonably impracticable. The regulations shall include:

(a) Procedures for the issuance, renewal, suspension, and revocation of a license to operate a marijuana establishment;
(b) Qualifications for licensure that are directly and demonstrably related to the operation of a marijuana establishment;

(c) Requirements for the security of marijuana establishments;

(d) Requirements to prevent the sale or diversion of marijuana and marijuana products to persons under 21 years of age;

(e) Requirements for the packaging of marijuana and marijuana products, including requirements for child-resistant packaging;

(f) Requirements for the testing and labeling of marijuana and marijuana products sold by marijuana establishments including a numerical indication of potency based on the ratio of THC to the weight of a product intended for oral consumption;

(g) Requirements for record keeping by marijuana establishments;

(h) Reasonable restrictions on signage, marketing, display, and advertising;

(i) Procedures for the collection of taxes, fees, and penalties imposed by this chapter;

(j) Procedures and requirements to enable the transfer of a license for a marijuana establishment to another qualified person and to enable a licensee to move the location of its establishment to another suitable location;

(k) Procedures and requirements to enable a dual licensee to operate medical marijuana establishments and marijuana establishments at the same location;

(l) Procedures to establish the fair market value at wholesale of marijuana; and

(m) Civil penalties for the failure to comply with any regulation adopted pursuant to this section or for any violation of the provisions of NRS 453D.300.

2. The Department shall approve or deny applications for licenses pursuant to NRS 453D.210.

3. The Department may by motion or on complaint, after investigation, notice of the specific violation, and an opportunity for a hearing, pursuant to the provisions of chapter 233B of NRS, suspend, revoke, or fine a licensee for the violation of this chapter or for a violation of a regulation adopted by the Department pursuant to this section.

4. The Department may immediately suspend the license of any marijuana establishment if the marijuana establishment knowingly sells, delivers, or otherwise transfers marijuana in violation of this chapter or knowingly purchases marijuana from any person not licensed pursuant to this chapter or to chapter 453A of NRS. The Department must provide an opportunity for a hearing pursuant to the provisions of NRS 233B.121 within a reasonable time from a suspension pursuant to this subsection.

5. To ensure that individual privacy is protected:

(a) The Department shall not require a consumer to provide a retail marijuana store with identifying information other than government-issued identification to determine the consumer’s age; and

(b) A retail marijuana store must not be required to acquire and record personal information about consumers other than information typically acquired in a financial transaction conducted at a retail liquor store.

6. The Department shall conduct a background check of each prospective owner, officer, and board member of a marijuana establishment license applicant.

7. The Department shall inspect marijuana establishments as necessary to enforce this chapter or the regulations adopted pursuant to this section.

(Added to NRS by 2016 initiative petition, Ballot Question No. 2)
NRS 453D.210  Acceptance of applications for licensing; priority in licensing; conditions for approval of application; limitations on issuance of licenses to retail marijuana stores; competing applications. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

1. No later than 12 months after January 1, 2017, the Department shall begin receiving applications for marijuana establishments.

2. For 18 months after the Department begins to receive applications for marijuana establishments, the Department shall only accept applications for licenses for retail marijuana stores, marijuana product manufacturing facilities, and marijuana cultivation facilities pursuant to this chapter from persons holding a medical marijuana establishment registration certificate pursuant to chapter 453A of NRS.

3. For 18 months after the Department begins to receive applications for marijuana establishments, the Department shall issue licenses for marijuana distributors pursuant to this chapter only to persons holding a wholesale dealer license pursuant to chapter 369 of NRS, unless the Department determines that an insufficient number of marijuana distributors will result from this limitation.

4. Upon receipt of a complete marijuana establishment license application, the Department shall, within 90 days:
   (a) Issue the appropriate license if the license application is approved; or
   (b) Send a notice of rejection setting forth the reasons why the Department did not approve the license application.

5. The Department shall approve a license application if:
   (a) The prospective marijuana establishment has submitted an application in compliance with regulations adopted by the Department and the application fee required pursuant to NRS 453D.230;
   (b) The physical address where the proposed marijuana establishment will operate is owned by the applicant or the applicant has the written permission of the property owner to operate the proposed marijuana establishment on that property;
   (c) The property is not located within:
      (1) One thousand feet of a public or private school that provides formal education traditionally associated with preschool or kindergarten through grade 12 and that existed on the date on which the application for the proposed marijuana establishment was submitted to the Department; or
      (2) Three hundred feet of a community facility that existed on the date on which the application for the proposed marijuana establishment was submitted to the Department;
   (d) The proposed marijuana establishment is a proposed retail marijuana store and there are not more than:
      (1) Eighty licenses already issued in a county with a population greater than 700,000;
      (2) Twenty licenses already issued in a county with a population that is less than 700,000 but more than 100,000;
      (3) Four licenses already issued in a county with a population that is less than 100,000 but more than 55,000;
      (4) Two licenses already issued in a county with a population that is less than 55,000;
(5) Upon request of a county government, the Department may issue retail marijuana store licenses in that county in addition to the number otherwise allowed pursuant to this paragraph;

(e) The locality in which the proposed marijuana establishment will be located does not affirm to the Department that the proposed marijuana establishment will be in violation of zoning or land use rules adopted by the locality; and

(f) The persons who are proposed to be owners, officers, or board members of the proposed marijuana establishment:
   (1) Have not been convicted of an excluded felony offense; and
   (2) Have not served as an owner, officer, or board member for a medical marijuana establishment or a marijuana establishment that has had its registration certificate or license revoked.

6. When competing applications are submitted for a proposed retail marijuana store within a single county, the Department shall use an impartial and numerically scored competitive bidding process to determine which application or applications among those competing will be approved.

(Added to NRS by 2016 initiative petition, Ballot Question No. 2)

NRS 453D.220 Expiration and renewal of licenses. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

1. All licenses expire one year after the date of issue.

2. The Department shall issue a renewal license within 10 days of receipt of the prescribed renewal application and renewal fee from a marijuana establishment if its license is not under suspension or has not been revoked.

(Added to NRS by 2016 initiative petition, Ballot Question No. 2)

NRS 453D.230 Fees. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

1. The Department shall require each applicant for a marijuana establishment license to pay a one-time application fee of $5,000.

2. The Department may require payment of an annual licensing fee not to exceed:

   For the initial issuance of a license for a retail marijuana store.................. $20,000
   For a renewal license for a retail marijuana store...................................... $6,600
   For the initial issuance of a license for a marijuana cultivation facility..... $30,000
   For a renewal license for a marijuana cultivation facility...................... $10,000
   For the initial issuance of a license for a marijuana product manufacturing facility................................................................. $10,000
For a renewal license for a marijuana product manufacturing facility....... $3,300
For the initial issuance of a license for a marijuana distributor................. $15,000
For a renewal license for a marijuana distributor........................................... $5,000
For the initial issuance of a license for a marijuana testing facility........... $15,000
For a renewal license for a marijuana testing facility............................... $5,000
(Added to NRS by 2016 initiative petition, Ballot Question No. 2)

NRS 453D.300 Requirements for operation of marijuana establishment; inspection of establishment. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.] In addition to requirements established by rule pursuant to NRS 453D.200:

1. Marijuana establishments shall:
   (a) Secure every entrance to the establishment so that access to areas containing marijuana is restricted to persons authorized to possess marijuana;
   (b) Secure the inventory and equipment of the marijuana establishment during and after operating hours to deter and prevent theft of marijuana;
   (c) Determine the criminal history of any person before the person works or volunteers at the marijuana establishment and prevent any person who has been convicted of an excluded felony offense or who is not 21 years of age or older from working or volunteering for the marijuana establishment.

2. All cultivation, processing, and manufacture of marijuana must take place at a physical address approved by the Department and within an area that is enclosed and locked in a manner that restricts access only to persons authorized to access the area. The area may be uncovered only if it is enclosed with security fencing that is designed to prevent unauthorized entry and that is at least 8 feet high.

3. All cultivation, processing, and manufacture of marijuana must not be visible from a public place by normal unaided vision.

4. All cultivation, processing, and manufacture of marijuana must take place on property in the marijuana establishment’s lawful possession or with the consent of the person in lawful physical possession of the property.

5. A marijuana establishment is subject to reasonable inspection by the Department, and a person who holds a marijuana establishment license must make himself or herself, or an agent thereof, available and present for any inspection required by the Department. The Department shall make reasonable accommodations so that ordinary business is not interrupted and safety and security procedures are not compromised by the inspection.

(Added to NRS by 2016 initiative petition, Ballot Question No. 2)

NRS 453D.400 Violations and penalties. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]

1. Restrictions on personal cultivation.
(a) Except as otherwise provided in chapter 453A of NRS, any person who:
   (1) Cultivates marijuana within 25 miles of a retail marijuana store licensed pursuant to this chapter, unless the person is a marijuana cultivation facility or a person acting in his or her capacity as an agent of a marijuana cultivation facility;
   (2) Cultivates marijuana plants where they are visible from a public place by normal unaided vision; or
   (3) Cultivates marijuana on property not in the cultivator’s lawful possession or without the consent of the person in lawful physical possession of the property;
   (b) Is guilty of:
      (1) For a first violation, a misdemeanor punished by a fine of not more than $600.
      (2) For a second violation, a misdemeanor punished by a fine of not more than $1,000.
      (3) For a third violation, a gross misdemeanor.
      (4) For a fourth or subsequent violation, a category E felony.

2. A person who smokes or otherwise consumes marijuana in a public place, in a retail marijuana store, or in a moving vehicle is guilty of a misdemeanor punished by a fine of not more than $600.

3. A person under 21 years of age who falsely represents himself or herself to be 21 years of age or older to obtain marijuana is guilty of a misdemeanor.

4. A person under 21 years of age who knowingly enters, loiters, or remains on the premises of a marijuana establishment shall be punished by a fine of not more than $500 unless the person is authorized to possess marijuana pursuant to chapter 453A of NRS and the marijuana establishment is a dual licensee.

5. A person who manufactures marijuana by chemical extraction or chemical synthesis, unless done pursuant to a marijuana product manufacturing license issued by the Department or authorized by chapter 453A of NRS, is guilty of a category E felony.

6. A person who knowingly gives marijuana to any person under 21 years of age, or who knowingly leaves or deposits any marijuana in any place with the intent that it will be procured by any person under 21 years of age is guilty of a misdemeanor.

7. A person who knowingly gives marijuana to any person under 18 years of age, or who knowingly leaves or deposits any marijuana in any place with the intent that it will be procured by any person under 18 years of age is guilty of a gross misdemeanor.

8. Notwithstanding the provisions of this chapter, after January 1, 2017, the Legislature may amend provisions of this act to provide for the conditions in which a locality may permit consumption of marijuana in a retail marijuana store.

(Added to NRS by 2016 initiative petition, Ballot Question No. 2)

NRS 453D.500 Imposition of tax on wholesale sales of marijuana by marijuana cultivation facility. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.] An excise tax is hereby imposed and must be collected by the State respecting wholesale sales of marijuana in this State by a marijuana cultivation facility at a rate of 15 percent of the fair market value at wholesale of the marijuana. The tax imposed pursuant to this section:
   1. Is the obligation of the marijuana cultivation facility; and
   2. Is separate from and in addition to any general state and local sales and use taxes that apply to retail sales of tangible personal property.

(Added to NRS by 2016 initiative petition, Ballot Question No. 2)
NRS 453D.510  Use of proceeds of tax, fees and penalties. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]  Any tax revenues, fees, or penalties collected pursuant to this chapter first must be expended to pay the costs of the Department and of each locality in carrying out this chapter and the regulations adopted pursuant thereto. The Department shall remit any remaining money to the State Treasurer to be deposited to the credit of the State Distributive School Account in the State General Fund.

(Added to NRS by 2016 initiative petition, Ballot Question No. 2)

NRS 453D.600  Severability. [This section was proposed by an initiative petition and approved by the voters at the 2016 General Election and therefore is not subject to legislative amendment or repeal until after November 22, 2019.]  If any provision of this chapter, or the application thereof to any person, thing or circumstance is held invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of this chapter as a whole or any provision or application of this chapter which can be given effect without the invalid or unconstitutional provision or application, and to this end the provisions of this chapter are declared to be severable.

(Added to NRS by 2016 initiative petition, Ballot Question No. 2)
EMAIL RECRUITMENT SCRIPT

Hello Student at the University of Nevada, Reno,

Do you want a chance to win a $10 gift card to Starbucks?

We are conducting a survey to learn about college students’ perceptions about non-medical marijuana use in the state of Nevada.

The survey will only take about 10 minutes to complete. You must be English speaking and 18 years or older to participate.

Participation or lack of participation in this study will neither benefit nor harm you. Participants may feel discomfort in telling us about their personal beliefs and use (or lack of use) of marijuana. To protect your privacy, we will not collect your name or other identifiable information from you. Your participation will be totally anonymous.

If you wish to enter the gift card raffle, click on the link provided at the end of the survey. Your email address will not be linked to your survey responses.

You may ask questions of the researcher at any time by calling the faculty advisor Karla Wagner, Ph.D. at 775.682.7129 or Tory Spence, the student investigator, by sending an email to tory.research.unr@gmail.com.

Follow this link to the Survey:
${l://SurveyLink?d=Take the Survey}

Or copy and paste the URL below into your internet browser:
${l://SurveyURL}

Follow the link to opt out of future emails:
${l://OptOutLink?d=Click here to unsubscribe}

Thank you for participating!

Sincerely,

Tory Spence
School of Community Health Sciences
Undergraduate Student
CONSENT INFORMATION SCRIPT

We are conducting a research study to learn about college students’ perceptions on recreational marijuana in the state of Nevada and if they believe that their own relationship with marijuana will change due to legalization.

If you volunteer to be in this study, you will be asked to complete a short online survey about your individual perceptions on recreational marijuana and your marijuana use, if any.

Your participation should take about 10 minutes.

This study has a minimal risk of harm. This means the risk of your participation this research is similar to what you encounter during your daily activities. You may experience minor discomfort in answering questions about your beliefs and behaviors. There could be potential financial and occupational harm should your confidentiality be breached to law enforcement or the University of Nevada, Reno. To protect against these harms, none of your personal information (like name, student ID number, or address) will be collected and all data will be stored on an encrypted and password protected private laptop.

Benefits of doing research are not definite, but we hope to learn if making recreational marijuana use more acceptable and altering the environment to make marijuana more accessible will increase students’ intent to use and actual use of marijuana. There are no direct benefits to you in this study activity.

By completing this survey, you are eligible to be entered into a raffle. We will give away fifty $10 Starbucks gift cards. Should you wish to participate in this raffle, please enter your email address at the end of the survey. We will keep this information separate from your survey responses.

The researchers and the University of Nevada, Reno will treat your identity and the information collected about you with professional standards of confidentiality and protect it to the extent allowed by law. You will not be personally identified in any reports or publications that may result from this study. The US Department of Health and Human Services, the University of Nevada, Reno Research Integrity Office, and the Institutional Review Board may look at your study records.

Required Language: English
Required Age: 18 years or older

You may ask questions of the researcher at any time by calling the faculty advisor Karla Wagner, Ph.D. at 775.682.7129 or Tory Spence, the student investigator, by sending an email to tory.research.unr@gmail.com.
Your participation in this study is completely voluntary. You may stop at any time. Declining to participate or stopping your participation will not affect your ability to access services and will not impact your grades, letters of recommendation, or other opportunities or decisions made by teacher/professor-researchers at the University of Nevada, Reno.

You may ask about your rights as a research participant. If you have questions, concerns, or complaints about this research, you may report them (anonymously if you so choose) by calling the University of Nevada, Reno Research Integrity Office at 775.327.2368.