

## Weighting Methodology for NCIRE Recreational Marijuana

Wave 1 of this study was conducted in 2017 and wave 2 was conducted in 2020. Because some states have changed their legalization status in the intervening 3 years and because some respondents have moved over that period of time, we provide two sets of weights (2017 version and 2020 version). Both weights use current respondent demos with the exception of the state of residence - for 2017 version, the state reflects the state where the respondent lived in 2017. Our weighting process included the following steps:

### 2017 version:

Definition of Areas:

Region 1 - Legal Recreational: AK, CO, ME, MA, NV, OR, WA, DC

Region 2 - Legal Medical: AZ, AR, CA CT, DE, FL, HI, IL, LA, MD, MI, MN, MT, NH, NJ, NM, NY, ND, OH, PA, RI, VT, WV

Region 3 - Not Legal: AL, GA, ID, IN, IA, KS, KY, MS, MO, NE, NC, OK, SC, SD, TN, TX, UT, VA, WI, WY

Region 4 - Legal Medical: CA

In the first step, we carry over the weight from last wave as the starting weights and rake to the following geodemographic distributions of the 20 and over population using benchmarks secured from March 2019 CPS Supplement Data.

- Gender (Male, Female) by Age (20-29, 30-44, 45-59, 60+) by Areas (1=Region 1, 2= Region 2 - exclude CA, 3= Region 3 and 4=CA).
- Race/ethnicity (Whites, Black, Others, Hispanics, 2+ Races) by Areas (1=Region 1, 2=Region 2 - exclude CA, 3=Region 3 and 4=CA).
- 2017 Region (Northeast, Midwest, South, West) by 2017 Metropolitan Status (Metro, Non-Metro) by areas (1=Region 1, 2=Region 2 - exclude CA, 3=Region 3 and 4=CA).
- Education (Less than HS, HS, Some College, Bachelor or Higher) by Areas (1=Region 1, 2=Region 2 - exclude CA, 3=Region 3 and 4=CA).
- Income (Under \$25,000, \$25,000-\$49,999, \$50,000-\$74,999, \$75,000-\$99,999, \$100,000-\$149,999, \$150,000 and over') by Areas (1=Region 1, 2=Region 2 - exclude CA, 3=Region 3 and 4=CA).

The resulting interim weights are trimmed and scaled to the total number of respondents, and labeled as weight1\_2017. Then we re-scale the weights to get the 3 Regional sample weights (weight2a\_2017, weight2b\_2017, weight2c\_2017) and CA sample weights (weight3a\_2017).

Using the above weights (weight1\_2017) as starting weights, ratio adjustments are applied using 2019 CPS benchmarks for all 20 to 32-year-olds.

- Gender (Male, Female) by Age (20-21,22-23,24-25,26-27,28-29,30-32)
- Race/ethnicity (Whites, Black, Others, Hispanics, 2+ Races)
- Areas (Region 1, Region 2/Northeast - exclude CA, Region 2/Midwest - exclude CA, Region 2/South - exclude CA, Region 2/West - exclude CA, Region 3/Midwest, Region 3/South, Region 3/West, CA)
- 2017 Metropolitan Status (Metro, Non-Metro)
- Education (Less than HS, HS, Some College, Bachelor or Higher)

- Income (Under \$25,000, \$25,000-\$49,999, \$50,000-\$74,999, \$75,000-\$99,999, \$100,000-\$149,999, \$150,000 and over)

The resulting interim weights are trimmed, scaled back to the total number of respondents, and labeled as weight3b\_2017.

### **2020 version**

Definition of Areas:

Region 1 - Legal Recreational: AK, CO, IL, ME, MA, MI, NV, OR, VT, WA, DC

Region 2 - Legal Medical: AZ, AR, CT, DE, FL, HI, LA, MD, MN, MO, MT, NH, NJ, NM, NY, ND, OH, OK, PA, RI, UT, WV

Region 3 - Not Legal: AL, GA, ID, IN, IA, KS, KY, MS, NE, NC, SC, SD, TN, TX, VA, WI, WY

Region 4 - Legal Recreational: CA

For the 2020 weight version, we also carry over the weight from last wave as the starting weights and rake to the following geodemographic distributions of the 20 and over population using benchmarks secured from March 2019 CPS Supplement Data.

- Gender (Male, Female) by Age (20-29, 30-44, 45-59, 60+) by Areas (1=Region 1- exclude CA, 2=Region 2, 3=Region 3 and 4=CA).
- Race/ethnicity (Whites, Black, Others, Hispanics, 2+ Races) by Areas (1=Region 1- exclude CA, 2=Region 2, 3=Region 3 and 4=CA).
- Region (Northeast, Midwest, South, West) by Metropolitan Status (Metro, Non-Metro) by Areas (1=Region 1- exclude CA, 2=Region 2, 3=Region 3 and 4=CA).
- Education (Less than HS, HS, Some College, Bachelor or Higher) by Areas (1=Region 1- exclude CA, 2=Region 2, 3=Region 3 and 4=CA).
- Income (Under \$25,000, \$25,000-\$49,999, \$50,000-\$74,999, \$75,000-\$99,999, \$100,000-\$149,999, \$150,000 and over') by Areas (1=Region 1- exclude CA, 2=Region 2, 3=Region 3 and 4=CA).

The resulting interim weights are trimmed, scaled back to the total number of respondents, and labeled as weight1\_2020. Once we have the weights for total sample (weight1\_2020), we re-scale the weights to get the 3 Regional sample weights (weight2a\_2020, weight2b\_2020, weight2c\_2020) and CA sample weights (weight3a\_2020).

20-32 US Population Benchmarks  
Source: March 2019 CPS Supplement Data

Age by Gender	Frequency	Percent
20,21 Male	4241795	7.34
20,21 Female	4082444	7.06
22,23 Male	4210614	7.28
22,23 Female	4268514	7.38
24,25 Male	4554096	7.88
24,25 Female	4335392	7.5
26,27 Male	4664497	8.07
26,27 Female	4623628	8
28,29 Male	4835498	8.37
28,29 Female	4704980	8.14
30,31,32 Male	6722717	11.63
30,31,32 Female	6557309	11.34

Ethnicity	Frequency	Percent
White, Non-Hispanic	31410408	54.34
Black, Non-Hispanic	7965045	13.78
Other, Non-Hispanic	4691113	8.12
Hispanic	12465895	21.57
2+ Race, Non-Hispanic	1269025	2.2

Census Region 9	Frequency	Percent
region 1	5552023	9.61
region 2/Northeast - exclude CA	8275041	14.32
region 2/Midwest - exclude CA	6954207	12.03
region 2/South - exclude CA	6193464	10.72
region 2/West - exclude CA	1993652	3.45
region 3/Midwest	4724489	8.17
region 3/South	15633579	27.05
region 3/West	1089331	1.88
CA	7385699	12.78

<b>Metro Status</b>	<b>Frequency</b>	<b>Percent</b>
<b>Non-Metro</b>	6596520	11.41
<b>Metro</b>	51204966	88.59

<b>Education Level</b>	<b>Frequency</b>	<b>Percent</b>
<b>Less than HS</b>	3936041	6.81
<b>HS</b>	15990198	27.66
<b>Some college</b>	19817003	34.28
<b>Bachelor or higher</b>	18058244	31.24

<b>Household Income</b>	<b>Frequency</b>	<b>Percent</b>
<b>Under \$25,000</b>	6285783	10.87
<b>\$25,000-\$49,999</b>	10587229	18.32
<b>\$50,000-\$74,999</b>	11141380	19.28
<b>\$75,000-\$99,999</b>	8881916	15.37
<b>\$100,000-\$149,999</b>	10494991	18.16
<b>\$150,000 and over</b>	10410186	18.01

<b>Age</b>	<b>Frequency</b>	<b>Percent</b>
<b>20</b>	4019817	6.95
<b>21</b>	4304422	7.45
<b>22</b>	4169814	7.21
<b>23</b>	4309315	7.46
<b>24</b>	4449270	7.7
<b>25</b>	4440219	7.68
<b>26</b>	4641556	8.03
<b>27</b>	4646568	8.04
<b>28</b>	4722035	8.17
<b>29</b>	4818443	8.34
<b>30</b>	4380548	7.58
<b>31</b>	4524451	7.83
<b>32</b>	4375028	7.57