



PRE-HEALTH DREAMERS

BREAKING MORE BARRIERS SURVEY REPORT

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Acknowledgments

The authors would like to thank the participants of the survey for their contributions that made this report possible. We are grateful for such strong communities of courageous and resilient individuals and families. We hope this report breaks more barriers and opens more doors with policy makers, leaders, and elected officials. We dedicate this work to the bright futures of undocumented young individuals, their loved ones and families everywhere. Thank you to Paulani Cortez-Villas and James Blum for their assistance in editing the report.

We also thank the generous contributions of our donors and financial sponsors who make this work possible.

Introduction & Survey Information

Undocumented students have traditionally faced substantial policy and financial barriers to pursuing higher education, especially in the health professions (e.g., medicine, nursing, dentistry). Policy changes, such as the federal Deferred Action for Childhood Arrivals (DACA) program in 2012, allowed an unprecedented number of undocumented students to apply and be accepted into health professions programs.^{1,2} However, even with inclusive policies, undocumented students continue to face significant barriers in matriculating and completing health professions programs, such as the inability to receive federal financial aid. A better understanding of the characteristics and experiences of undocumented youth pursuing health and health science careers is needed to promote more inclusive policies and practices for these individuals. Though existing literature describes the barriers undocumented youth face in pursuing higher education^{3,4} and characteristics of the undocumented youth population,⁵ to date, there are no studies that have collected data on the demographics of the undocumented student population seeking entry to the health professions. This report contains survey data that was collected by Pre-Health Dreamers (PHD), a national organization that serves over 800 undocumented youth interested in and currently pursuing health and health science careers.

Specifically, the survey elucidates the demographics of undocumented students pursuing health and health-science careers, describes the barriers they face within educational settings (e.g. access to pre-health advisors and career advising, financial aid challenges, and peer support networks), provides insights to their lived experiences (e.g. key challenges they have faced due to their immigration status), and describes their career aspirations (e.g. which degree programs they are pursuing and if they wish to practice in underserved areas). The survey was designed to build on previous initiatives and be a collaborative project with continued input and guidance from PHD staff.

We hope this survey and the proceeding analyses of the collected information are helpful in shaping inclusive institutional policies, developing informed resources, and securing financial aid for these persons. We hope that this work will be impactful for other health professional and graduate schools staff, pre-health advisors and other educators, and local and state-wide advocates.

Survey Methodology

PHD conducted an online survey of 123 questions among members of to evaluate the needs of the PHD community. A snowball sampling methodology was used, due to the nature of informal networks and relationships within undocumented communities. Members of PHD were sent the survey via email and were asked to forward it to their networks and friends. Known allies and offices that serve undocumented students in high school and post-secondary education were also sent the survey to disseminate to potential respondents. The survey was also shared through email, Facebook, and Twitter. Data were collected and stored through the

SurveyMonkey website between the months of May and August 2016. This report consists of data that were collected by August 2016. A total of 223 survey responses were collected.

Data that were collected by PHD were stripped of any identifying information that survey respondents may have offered. The data were scrubbed to remove duplicate responses, false starts, and individuals indicating they were born in the U.S. This de-identified data was shared with the research team and subsequently analyzed for this report by Anne Vo and Denisse Rojas Marquez.

Survey Design

The survey that was distributed by PHD included open-ended response, multiple choice, and rating-scale format questions. Question topics included demographic information, immigration status, income and employment, education, access to education and financial assistance, and career interest.

Protection of Survey Participants

Staff at PHD downloaded survey data from the survey site and the data are now stored on a secure server. PHD staff removed all identifying data before sharing data files with the research team. Data were pre-screened for small cell sizes that could inadvertently reveal the identity of the respondent. Small cell threats were removed.

Executive Summary

Four salient themes emerged from the data analysis for this report.

Undocumented students are incredibly diverse. Respondents' ages ranged from 17-42, with a mean age of 23.5. Almost 70% of survey respondents identified as female, with almost 30% identifying as male and slightly over 1% identifying as genderqueer. About 12% identified as LGBTQ. Respondents reported 30 different countries of birth including Albania, Bahrain, Jamaica, Iraq, Poland, Uzbekistan, Mexico, and Venezuela. The most common birth countries were Mexico, Peru, South Korea, and India. Immigration status also varied among respondents, which included DACA recipients (86%), undocumented people without DACA (8%), TPS recipients (1%), and one U-Visa recipient (0.5%). Four percent of respondents who were formerly undocumented are now US citizens or permanent residents. Respondents reported 26 different states of residence from all over the United States.

Undocumented students are accessing education despite significant barriers as evidenced by all of survey respondents who reported graduating from college or current enrollment in high school, community college, undergraduate universities, graduate schools, or post-baccalaureate programs. Almost 92% of survey respondents are currently enrolled or have graduated from a college or university. Almost 19% of respondents reported being enrolled in a graduate program (MD, DDS, PhD, Master's, etc).

Undocumented students have important skill sets and experiences for the health professions. Respondents reported speaking a collective 20 different languages with 98% speaking at least two languages fluently. Sixty-six percent of respondents were or will be first-generation high school graduates. Over two thirds of respondents are employed at least part time. Nearly all respondents (98%) expressed an interest in working in an underserved community.

Undocumented students face barriers to navigating preparation pathways to health careers, due to receiving inadequate mentorship or systemic support. Participants were asked to rate their experiences accessing preparation components or support for their pathways to health professions. Seventy-five percent of students indicated it was difficult or very difficult to access financial or academic scholarship support. Sixty-six percent of respondents reported barriers to accessing knowledgeable advising and over half of respondents found it challenging to find careers support.

Policy Recommendations

This survey of undocumented students pursuing health careers provides a small snapshot of current barriers and opportunities. Based on analyses of these data, the authors submit the following recommendations for partners, collaborators, advocates, and allies to consider.

1. Maintain and expand opportunities for undocumented students at public institutions of higher education. States with policies that allow undocumented students to pay in-state tuition at colleges and universities based on their state residency showed higher rates of participation in higher education among the survey respondents. Further, colleges and universities where students were enrolled were a mixture of affordable public universities where tuition rates were within feasibility while working or with modest family support, and private institutions that likely offered financial aid packages that did not include federal dollars.

2. Improve access to financial aid for undocumented students in health career fields. At each level of post-secondary education, the barriers for financial aid create gaps, delays, and time challenges for students and their families. Though public universities, self-pay, and private scholarships have facilitated participation, at the graduate and professional school level, resources remain scarce.

3. Acknowledge the breadth of diversity of undocumented students in the United States. Our small sample size revealed marked diversity in immigration history, national origin, race, ethnicity, sexual identity, and family background. Often policy makers think of one racial or ethnic group in reference to undocumented communities. Our data show that this community is incredibly diverse. Programming and resource allocation should be informed by and adapted for the diversity of the undocumented student community.

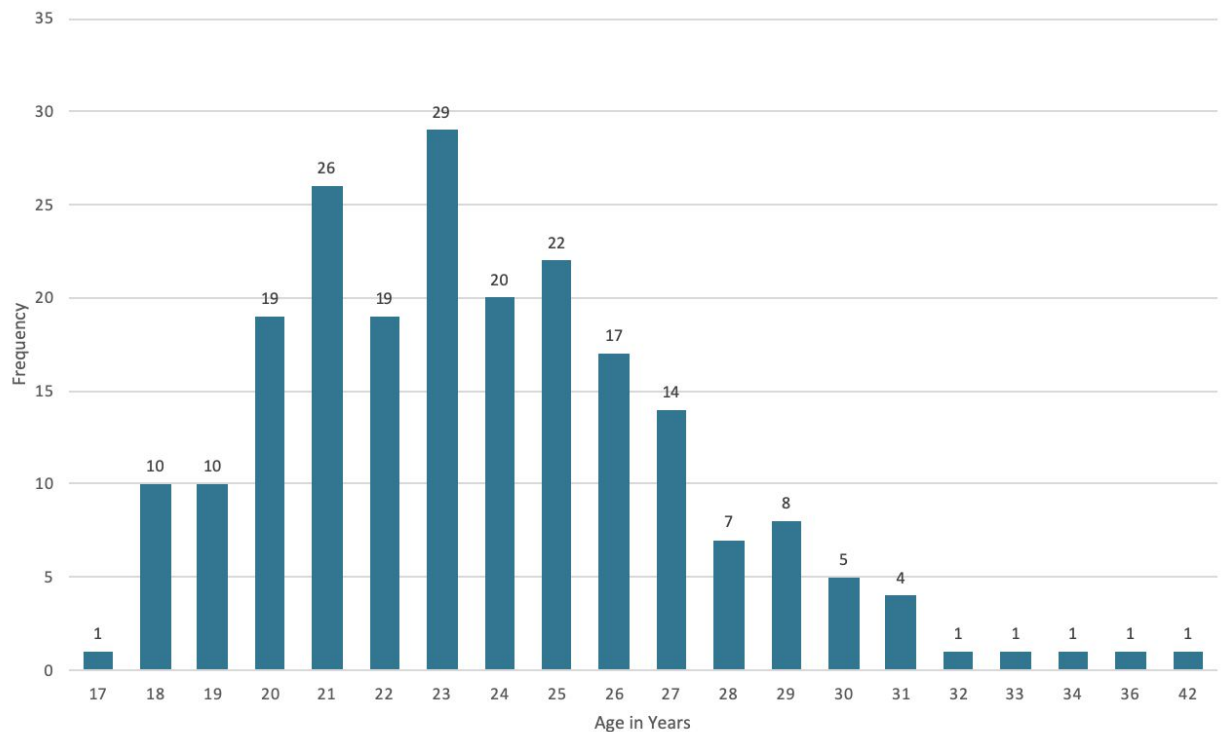
4. Address barriers to preparation for careers in health professions through mentorship, transparent processes, capacity building, and awareness. Undocumented students faced challenges accessing internships, finding mentorship, and receiving guidance from knowledgeable allies. Volunteering had fewer respondents reporting difficulty with access, while career support, knowledgeable advising, employment opportunities, and internships had high response rates of being rated difficult or very difficult. It is important that undocumented students are able to access the opportunities they need to be competitive applicants.

Demographics

Age

Min: 17 years
Max: 42 years
Mean: 23.5 years
Mode: 23 years

n= 216



The majority of students (62.5%) ranged between 20 and 25 years of age. The most common age for was 23 years old (n=29), and the mean age of all respondents was 23.5 years old. The maximum and minimum ages were 42 and 17, respectively.

Gender Identity

In the survey, 152 students identified as females (69.09%) and 65 identified as males (29.55%). Additionally, three participants identified as genderqueer.

Gender Identity	Frequency	%
Female	151	69.59%
Male	63	29.03%
Genderqueer	3	1.38%
Total	217	100.00%

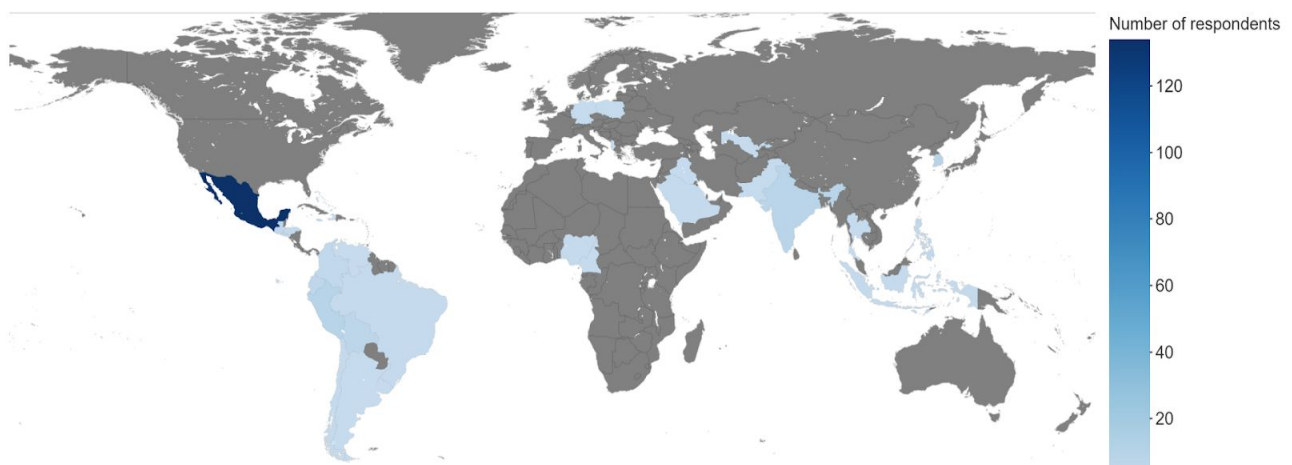
LGBTQ Identity

A total of 25 students identified as LGBTQ (11.74%), and 188 did not (88.26%).

LGBTQ Identity	Frequency	%
No	188	88.26%
Yes	25	11.74%
Total	213	100.00%

Country of Birth

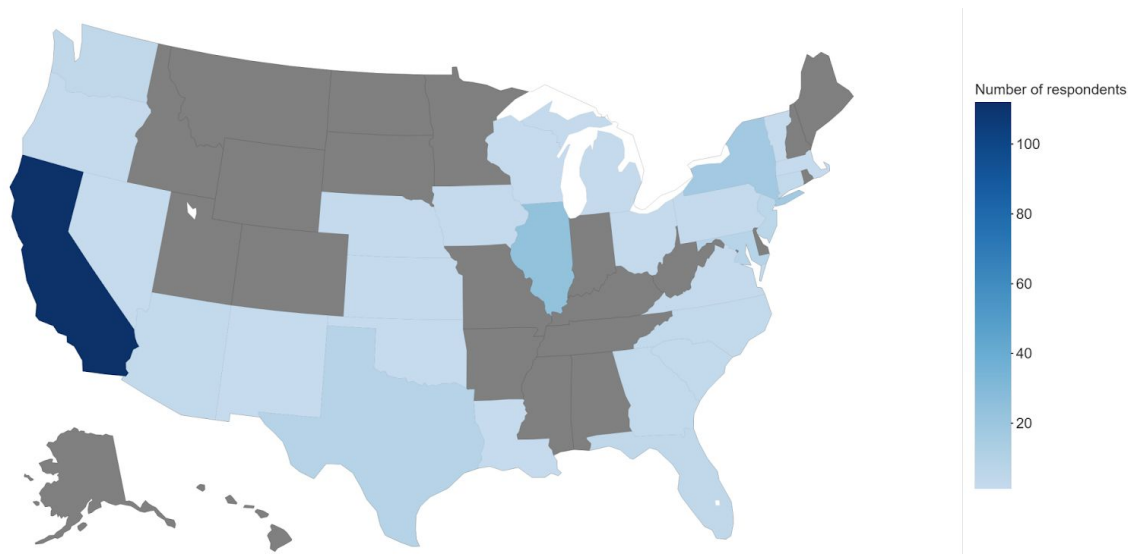
A total of 134 students (62.91%) were born in Mexico. The rest of the students reported their countries of birth were dispersed across a number of other countries, including Peru (10 individuals), South Korea (9 individuals), and India (7 individuals).



Current State of Residence

A total of 112 respondents (51.38%) currently live in California. In addition, 23 individuals reside in Illinois (10.55%) and 15 reside in New York (6.88%). The remainder of the respondents were geographically dispersed (see map).

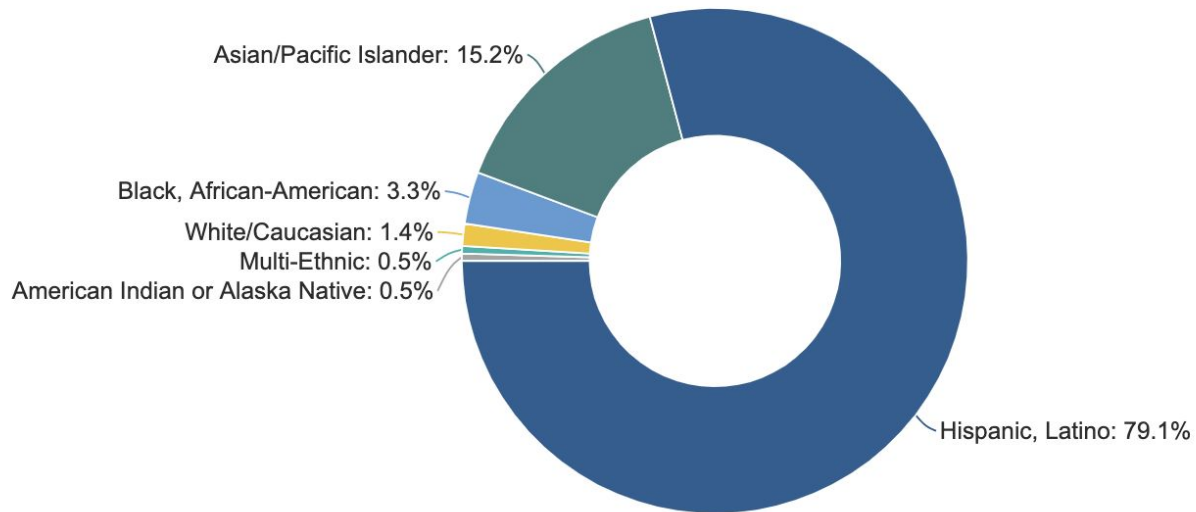
n = 218



Race and Ethnicity

A total of 167 respondents (79.1%) identified their race/ethnicity as Hispanic/Latino. In addition, 32 respondents (15.2%) identified their race/ethnicity as Asian/Pacific Islander.

n=211



Marital Status

Nearly all participants (91.67%) identified as single. Twelve people (5.56%) indicated they were married. Six participants were either divorced/separated, widowed, or selected “Other”.

Marital Status	Frequency	%
Single	198	91.67%
Married	12	5.56%
Other	3	1.39%
Divorced/Separated	2	0.93%
Widowed	1	0.46%
Total	216	100%

Parental Status

A total of 213 respondents (96.82%) reported that they were not a parent/legal guardian. Seven individuals (3.18%) said that they were a parent/legal guardian.

Parental Status	Frequency	%
No	210	96.77%
Yes	7	3.23%
Total	217	100%

Employment Status

A total of 67 respondents (31.60%) reported they are full-time students who do not work, 60 respondents (28.30%) indicated they work part time, and 46 respondents (21.70%) reported they work full time. In total, half of the participants work at least part time.

Employment status	Frequency	%
Student (not working)	67	31.60%
Part-time (1-5 hours/wk)	60	28.30%
Full-time (35+)	46	21.70%
Other	15	7.08%
Unemployed and looking for work	11	5.19%
Student (and working part-time)	11	5.19%
Temporarily laid-off	1	0.47%
Unemployed and looking for work	1	0.47%
Total	212	100%

Educational Standing

A total of 137 students (64.02%) were current students or graduates of a bachelor-granting institution. In addition, 39 (18.22%) were currently enrolled in or had completed a graduate program.

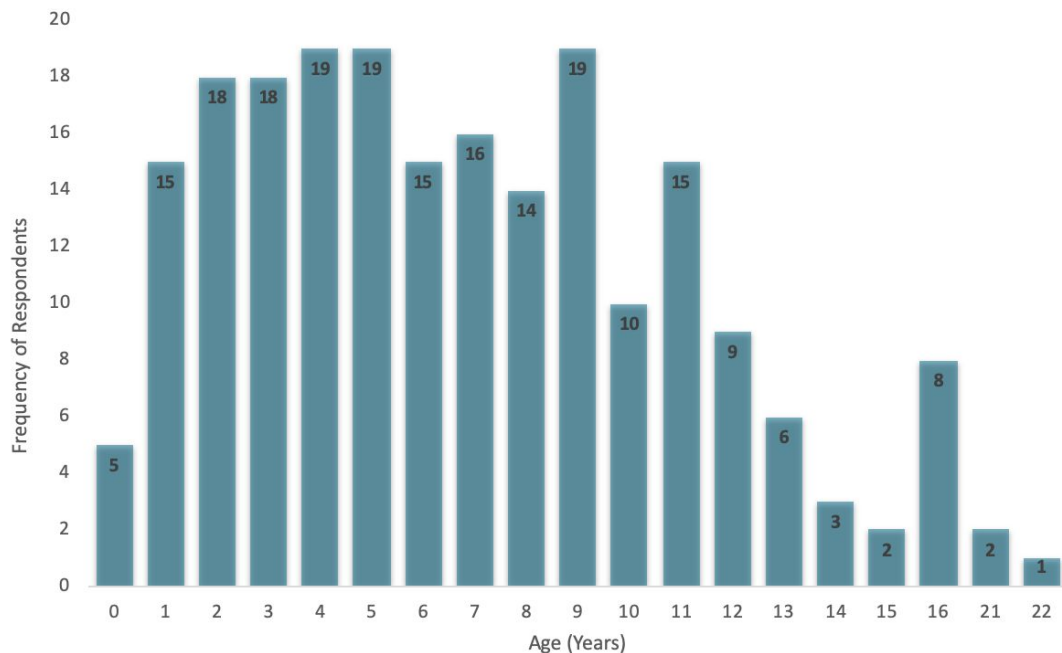
Educational Standing	Frequency	%
University (Bachelor-granting institution) student or graduate	137	64.02%
Graduate program student (e.g. dental, medical, Masters, Ph.D. program, etc.) or graduate	39	18.22%
High School student or graduate	15	7.01%
Community College student or graduate	14	6.54%
Post-baccalaureate program student or graduate	9	4.21%
Total	214	100%

Journey

Age of Resettlement

The reported ages of resettlement, or when individuals first permanently moved to the U.S., were distributed fairly evenly. An overwhelming majority of respondents (73.8%) resettled before age nine. The mean age of resettlement was seven years.

n=214



Method of Arrival

Method of Arrival	Frequency	%
With a visa (e.g., student visa, tourist visa)	104	48.83%
Without inspection	95	43.66%
Other	10	4.69%
Unaccompanied child	6	2.82%
Total	213	100%

A total of 104 respondents (48.83%) came to the United States with a visa. Another 95 respondents (43.66%) arrived without inspection. The remainder either indicated that they came as unaccompanied children, or they selected “Other”, which included “Visa Waiver Program”, “With Inspection”, “Unknown”, and “Border Crossing Card”.

Immigration Status

A total of 187 participants (86.18%) are DACA recipients. Seventeen participants (7.83%) indicated they are undocumented (without DACA or similar relief). Nine participants were formerly undocumented but are currently either a legal permanent resident or citizen.

Immigration Status	Frequency	%
Deferred Action for Childhood Arrivals (DACA) Recipient	187	86.18%
Undocumented (without DACA or similar relief)	17	7.83%
Legal permanent resident (formerly undocumented)	5	2.30%
Citizen (formerly undocumented)	4	1.84%
Temporary Protected Status (TPS) Recipient	3	1.38%
U Nonimmigrant Visa (U-Visa) holder	1	0.46%
Total	217	100%

Respondents without DACA

Of the seventeen individuals who responded that they are undocumented (without DACA or similar relief), seven provided reasons why they do not have DACA. These answers included the following: *"I entered the U.S. after my 16th birthday," "I was not continuously present in the U.S. since June 15th, 2017," "I did not officially lose my status until a month after DACA was announced,"* and *"I was not present in the U.S. on June 15, 2012."* Notably, some survey respondents indicated that the cost of DACA renewal fees were prohibitively expensive.

Residency Status

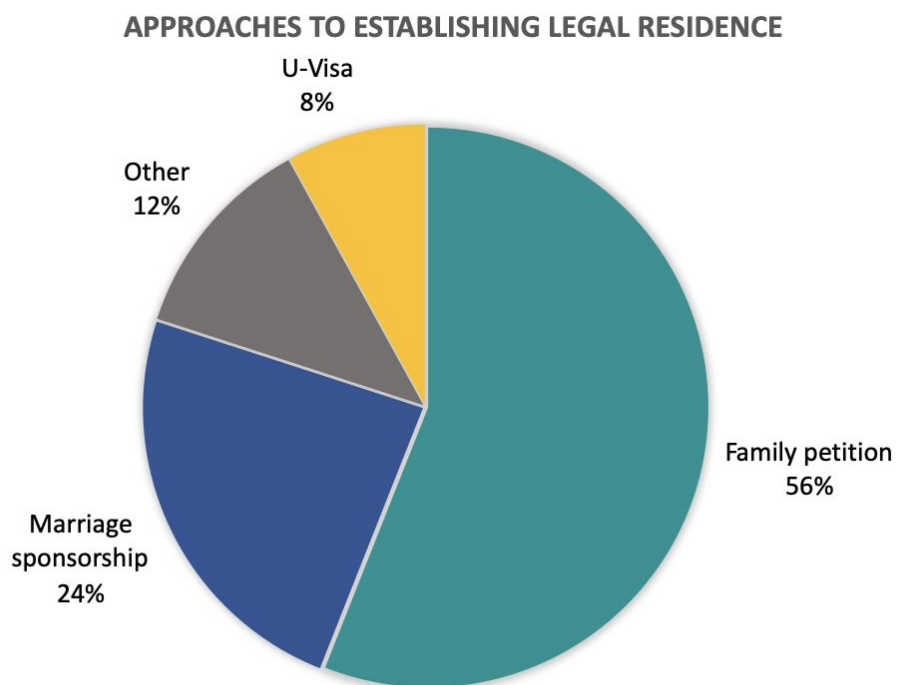
Pursuing Legal Residence Status: Twenty-four respondents (12.18%) indicated they are currently pursuing legal residence status and 173 respondents (87.82%) are not pursuing legal residence status.

Pursuing Legal Residence Status	Frequency	%
No	173	87.37%
Yes	25	12.63%
Total	198	100%

Estimated Length of Time to Receive Legal Permanent Residency: Respondents who are pursuing legal status expect to wait an average of four years and seven months to receive their legal permanent residency. The range of expected waiting time was 6 months to 10 years (n=19).

Approaches to establishing legal residence: Among respondents who are currently adjusting their immigration statuses, the most common method of doing so is through family petitions (56%), followed by marriage sponsorships (24%), and U-Visas (8%).

n=25



Social and Financial Capital

Linguistic Capital

An overwhelming majority (78.40%) of participants learned Spanish as a first language. In addition, 12 (5.63%) reported their first language was English, and seven (3.29%) learned Korean as their first language. Nearly all respondents (98.13%) are multilingual.

Number of languages spoken	Frequency	%
1	4	1.87
2	166	77.57%
3	32	14.95
4	10	4.67%
5	2	0.93%
Total n	214	100%

Financial Capital

Income: A total of 141 respondents (71.94%) reported an average annual household income under \$39,999.

Average Household Income	Frequency	%
\$0 - \$19,999	61	31.12%
\$20,000 - \$39,999	80	40.82%
\$40,000 - \$59,999	37	18.88%
\$60,000 - \$100,000	18	9.18%
Total	196	100%
n	196	100%

Individuals in the Household:

The average number of people in a respondent's household was four (n=209). The average number of people in the household who are employed was two (n=204). Among respondents who work, the average number of hours worked per week is 28 (n=129).

Housing Status: A total of 115 respondents (54.25%) live with their parents while 91 respondents (42.92%) live independently. Six participants (2.36%) live with other family members (such as in-laws, grandparents, and siblings), and one participant (0.47%) indicated that they are undomiciled.

Housing Status	Frequency	%
Live with parents	115	54.25%
Live independently	91	42.92%
Live with other family	6	2.36%
Homeless	1	0.47%
Total	212	100%

Supporting Family: A total of 142 respondents (71.36%) reported they are only financially responsible for supporting themselves. Thirty (15.08%) support themselves and another person. Nineteen participants (9.55%) financially support themselves and two, three or four other individuals. Notably, seven participants (3.52%) said they are financially dependent on another person and do not support themselves and one person selected “other.”

# of People Supporting (including respondent)	Frequency	%
0 or “Other”	8	4.02%
1	142	71.36%
2	30	15.08%
3	8	4.02%
4	9	4.76%
5	2	1.01%
Total	199	100%

Finances – Expenditures:

A total of 120 respondents (57.14%) expressed having family financial obligations while 90 respondents (42.86%) reported not having family financial obligations. Of individuals with financial obligations, 59 are financially dependent (49.17%) and 61 are financially independent (50.83%).

Financial Obligations	Frequency	%
Yes	120	57.14%
No	90	42.86%
Total	215	100%

Financial Status	Financial Obligations	
	No	Yes
Dependent	62	59
Independent	28	61
Total	90	120

Financial contributions to family and others:

We asked how much money respondents contribute to their family's financial obligations per month (e.g. rent, bills, etc.). The most common response was \$500 (n=81). The average of all responses was \$714.20, the range of financial contributions was \$60 - \$6,800 (n=81).

Education Status

First-Generation High School or College Graduate

A total of 139 respondents (65.57%) are or will be the first in their family to graduate from high school. A total of 169 respondents (79.71%) are or will be the first in their family to graduate from college.

Further analysis below:

		First-Generation High School Graduate	
		Yes	No
First-Generation	Yes	139	30
College Graduate	No	n/a	43
Total		139	73

- Participants responding “Yes” to both questions (top-left cell) indicated that their parents neither graduated from high school or college. They were both a first-generation high school and college graduate. There were 139 respondents in this category (65.57%).
- Participants occupying the top-right cell indicated that their parents graduated from high school, but not from college. They were a first-generation college graduate, but not a first-generation high school graduate. There were 30 respondents in this category (14.15%).
- Participants responding “No” to both questions (bottom-right cell) indicated that their parents graduated from both high school and college. A total of 43 respondents chose this category (20.28%).
- If any participant were to occupy the bottom-left cell, they would be indicating that their parents graduated from college, but not high school. This does not make sense, and is consequently labeled “n/a” (Not applicable).

Notably, 7 respondents indicated that their parents obtained their high school or college degree in their home country. This was not included as an option and thus these responses were coded as “no” for first-generation high school or college graduates, respectively.

College/University Enrollment or Completion

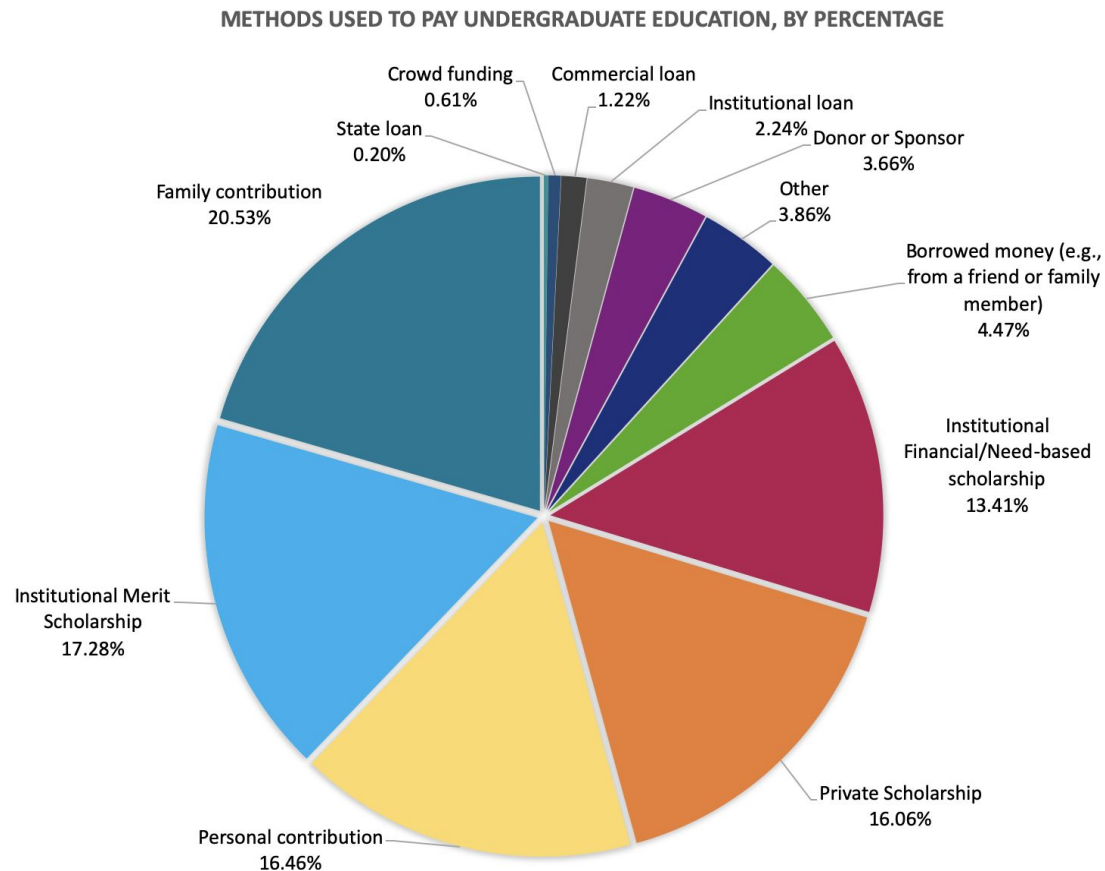
A total of 188 respondents (92.16%) have started or completed college.

Started or Completed College	Frequency	%
Yes	188	92.16%
No	16	7.84%
Total	204	100%

Undergraduate Education Financing

Undergraduate Payment Method

n=173



Respondents indicated that they paid for their undergraduate education using a myriad of financial resources. These findings only display the percentage of respondents who relied on each source of funding to cover the costs associated with their undergraduate degree. Each respondent could select multiple options. This graph does not reflect the amount of money received from each source. Family contribution accounted for the most common source of funding for respondents (20.53%). Other popular sources of funding included institutional merit scholarships, personal contributions, private scholarships, and financial/need-based scholarships.

In-State Tuition Eligibility for Undergraduate College/University

A total of 129 respondents (70.88%) indicated they were eligible for in-state tuition. Another 32 respondents (17.58%) were not eligible. The rest of the respondents attended a private institution and were therefore not affected by in-state tuition policies.

Eligibility for In-State Tuition	Frequency	%
Yes	129	70.88%
No	32	17.58%
N/A (I attend(ed) a private institution)	21	11.41%
Total	182	100%

Debt from Undergraduate Degree

A total of 123 respondents (78.85%) have no debt from their undergraduate degree. The remaining 21.15% each owe under \$40,000. The average debt was \$1,839. The maximum amount reported was \$40,000.

Current Amount Owed	Frequency	%
None	123	78.85%
\$1-\$999	3	1.94%
\$1,000-\$4,999	11	7.74%
\$5,000-\$9,999	8	4.52%
\$10,000-\$19,999	6	3.87%
\$20,000-\$40,000	5	3.23%
Total	156	100%

Graduate Education

Graduate Program

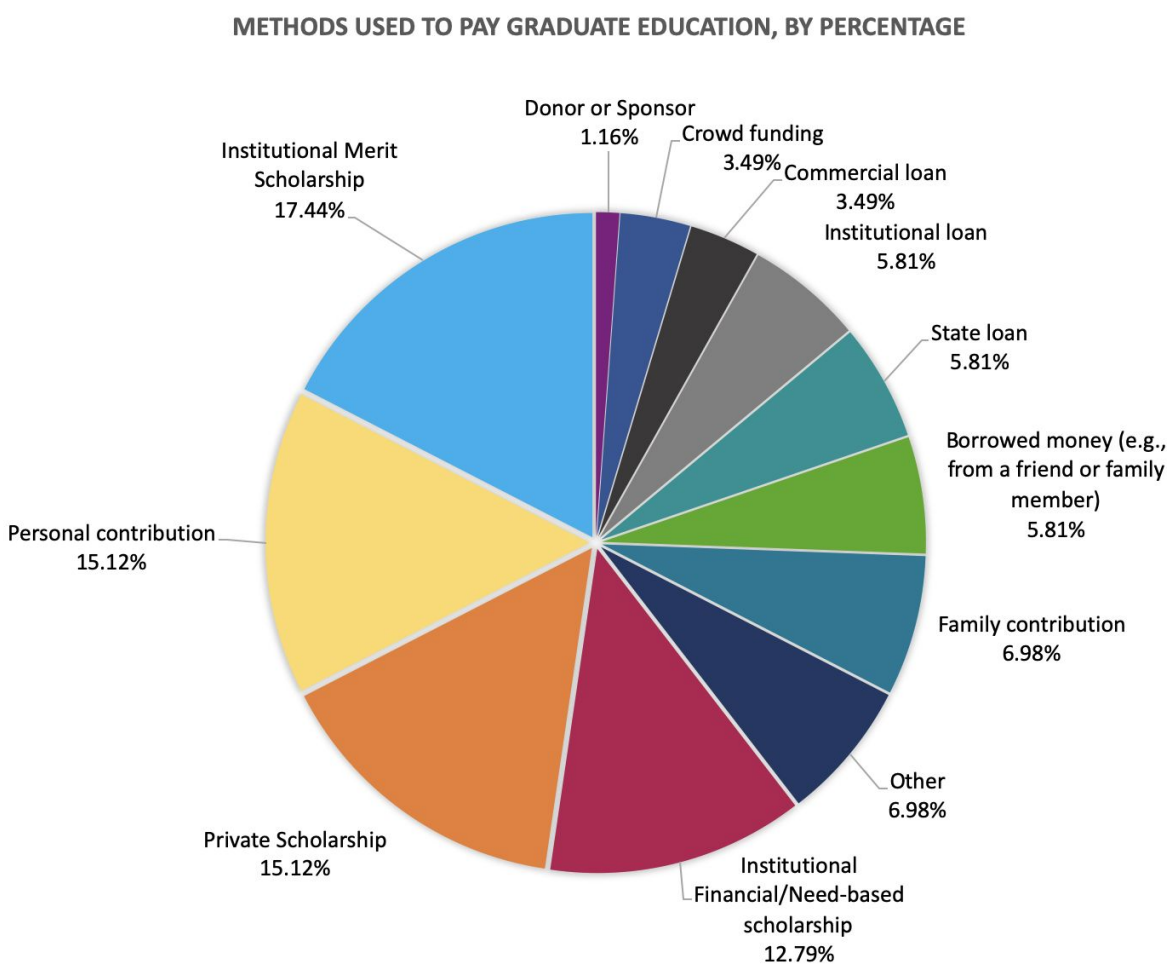
Sixteen respondents (41.03%) are in medical school, and 14 (35.90%) are in graduate school at the master's level. These individuals accounted for the majority of responses from individuals who indicated they are attending graduate school.

Graduate Program	Frequency	%
Medical School	16	41.03%
Master's Program	14	35.90%
Dental School	3	7.69%
Not Specified	2	5.13%
Doctoral program	2	5.13%
PharmD	1	2.56%
Medical Residency	1	2.56%
Total	39	100%

Graduate School Payment Method

Respondents indicated that they paid or are paying for their graduate education using a variety of financial resources. These findings only display the percentage of respondents who relied on each source of funding to cover the costs associated with their graduate degree. Each respondent could select multiple options. This graph does not reflect the amount of money received from each source. The most common payment methods that respondents indicated they used to pay for graduate school are: institutional merit scholarships (17.44%), personal contribution (15.12%), private scholarship (15.12%), and institutional/need-based scholarship.”

n= 34



In-State Graduate School Tuition Eligibility

Nineteen participants (52.78%) indicated that they were eligible for in-state tuition. Seven were not eligible (19.44%). The remaining participants who had attended or were attending graduate school attended private institutions and were therefore unaffected by in-state tuition policies.

In-state Tuition Eligibility	Frequency	%
Yes	19	52.78%
No	7	19.44%
N/A (I attend(ed) a private institution)	10	27.78%
Total n	36	100.00%

Current Graduate School Debt

5 respondents (26.32%) have zero debt from their graduate education. 2 respondents have an estimated \$1-\$19,999 of debt from their graduate education, and 2 students have an estimated \$20,000-\$39,999 of debt. The average debt owed towards graduate school is \$29,136 (this number does not include actual debt upon completing graduate school). The maximum amount reported was \$140,000.

Money Currently Owed	Frequency	%
\$0	5	26.32%
\$1-\$19,999	2	10.53%
\$20,000-\$39,999	2	10.53%
\$40,000-\$59,999	3	15.79%
\$60,000-\$79,999	4	21.05%
\$80,000-\$99,999	2	10.53%
\$100,000-\$200,000	1	5.26%
Total	19	100%

Access to Educational Resources and Support

Access to Resources and Support

Participants were asked to rate their experiences accessing various academic resources over the course of their lifetime. Respondents reported that accessing financial resources was the most common challenge they faced, with 75.26% saying it was either “difficult” or “very difficult” to do so. In particular, accessing academic scholarships was challenging for respondents, with 74.09% saying it was either “difficult” or “very difficult.”

Resources reported to be “easy” or “very easy” to access include volunteer opportunities (51.55%) and peer support (36.79%).

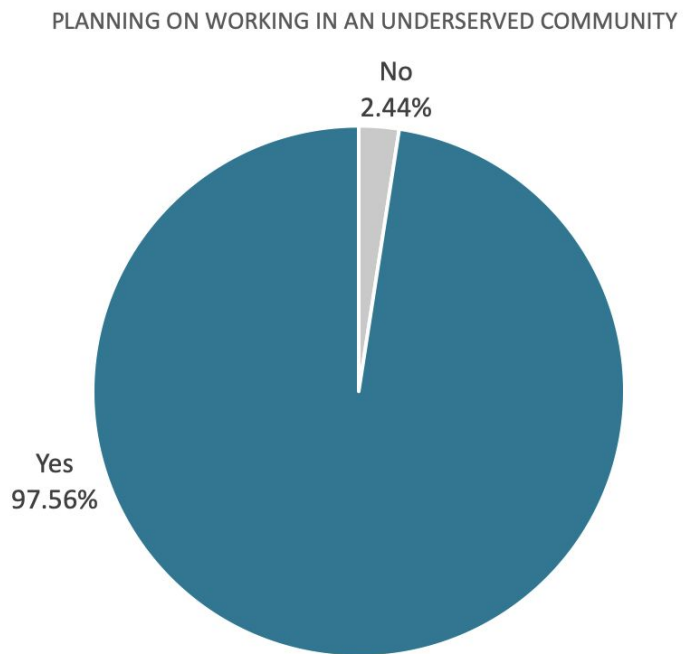
Academic Resources	Very Easy	Easy	Neither easy nor difficult	Difficult	Very Difficult	n/a	Total
Internships	6	18	32	68	49	18	191
Scholarships	0	8	38	76	67	4	193
Volunteer opportunities	39	61	50	31	12	1	194
Mentorship	13	40	50	55	22	13	193
Peer Support	17	54	51	45	22	4	193
Financial Support	1	8	38	64	82	1	194
Employment Opportunities	5	23	47	55	61	3	194
Career Support	3	23	51	58	55	3	193
Knowledgeable advising	5	26	33	61	66	2	193
Total	89	261	390	513	436	49	1736

Career Interest

Interest in Working in an Underserved Community

Two hundred (97.56%) respondents are planning on working in an underserved community. Five (2.44%) are not.

n=205



References

1. Balderas-Medina Anaya Y, del Rosario M, Doyle L, Hayes-Bautista DE. Undocumented Students pursuing medical education: The implications of deferred action for childhood arrivals (DACA). *Acad. Med.* 2014; 89(12):1599-602.
2. Nakae S, Rojas Marquez D, Di Bartolo IM, Rodriguez R. Considerations for Residency Programs Regarding Accepting Undocumented Students Who are DACA Recipients. *Acad Med.* 2017;11: 1549-1554.
3. Gonzalez RG. *Lives in Limbo Undocumented and Coming of Age in America*. N.P. Print 2016.
4. Perez W. *Americans By Heart Undocumented Latino Students and the Promise of Higher Education*. Teachers College Press. 2012. New York, NY.
5. Gonzalez RG, Terriquez V, Rusczyk SP. Becoming DACAmented: Assessing the Short-Term Benefits of Deferred Action for Childhood Arrivals (DACA). *Am. Behav. Sci.* 2014;58:1852-1872.

Contact Information

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