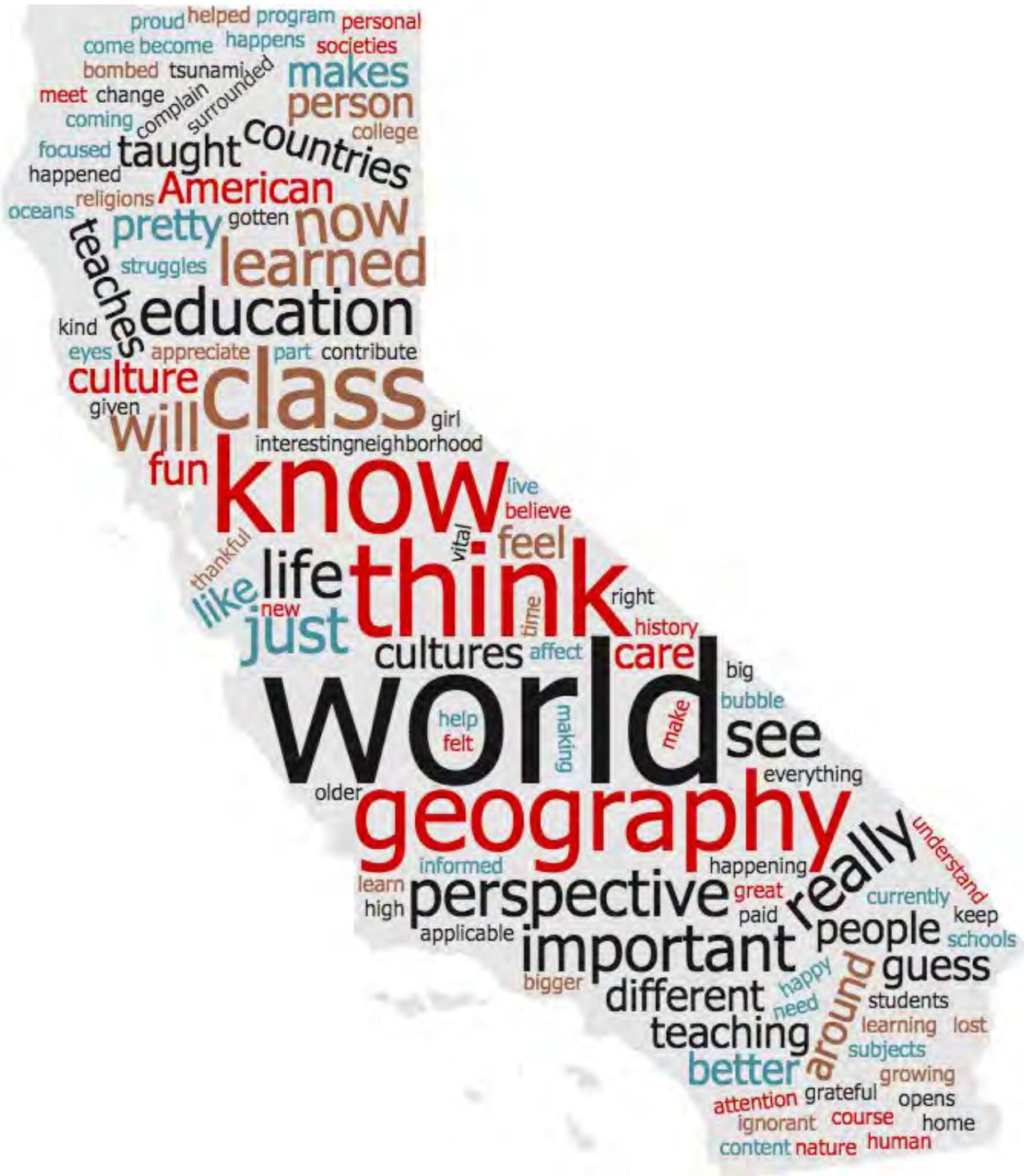


# A Study of Young People's Geographical Knowledge, Global Awareness, and Attitudes Toward Geography Education



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DEPARTMENT OF GEOGRAPHY  
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# Introduction

During National Geography Awareness Week 2016, California Governor Jerry Brown issued a powerful statement in support of geography education: “This week, I encourage all of our residents and especially our students and young people to learn more about the geography of our state, nation and world, both for the intrinsic pleasure of such learning and to become more prepared for life in a global economy and society.” Despite the strength of this proclamation, at this time, not all California school districts require or even offer a geography course for their students, even though numerous studies reveal that there is a worrying lack of global and geographical knowledge among American youth. Lack of geographical knowledge is a public concern, as public opinions on geopolitics affect democratic citizenship.

To counter this trend, the Sweetwater Union High School district in San Diego County recently developed a 9th grade Human Geography course designed for all students, which is now entering its third year of implementation. Our research team, comprised of San Diego State University undergraduate and graduate students, set out to gain a better understanding of geographical knowledge among young people in San Diego. Using the SDSU campus and Sweetwater Union School district as research sites, our team conducted a study designed to explore the relationship between geographic education and global awareness and knowledge. Our findings show that geographic literacy among both high school and college students is poor in general, but suggest that geography education in high school and college may provide students with a more comprehensive understanding and appreciation of current events and global interconnections.

We conducted a mixed methods study with a sample of 24 high school participants, who participated in surveys and interviews, and 145 university participants, who participated in surveys. Our team focused on the following questions:

- Are students geographically informed citizens who are knowledgeable about current social, environmental and political issues around the world?
- Do geography courses help improve students’ global awareness and interest in global issues?

Survey results established a baseline level of geographic knowledge for both cohorts, and short-answer questions yielded a wide variety of opinions about global issues. In-depth interviews revealed more complex aspects of geography education. Many Sweetwater District high school

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# Methodology

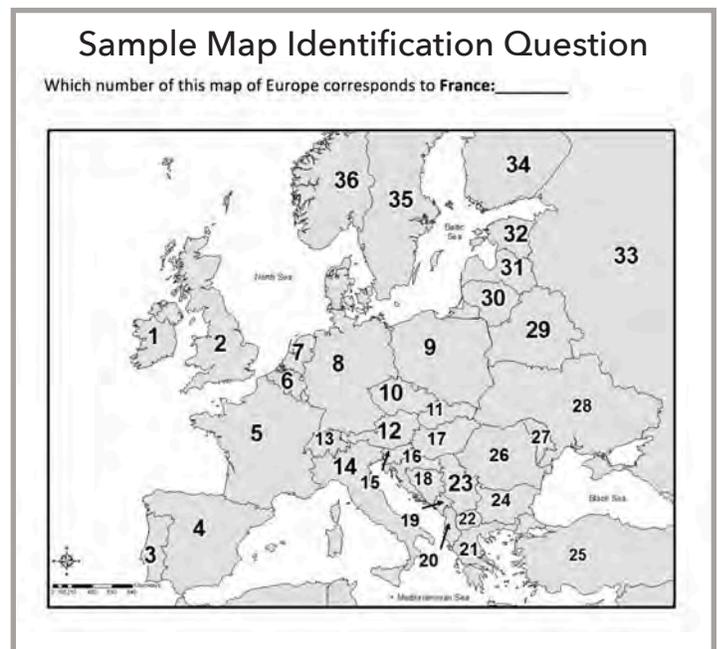
To investigate whether California students are geographically informed and knowledgeable about global issues, and whether geography courses help improve students' geographical knowledge, we looked to two school populations. San Diego State University offered a bustling campus with thousands of students from diverse backgrounds. The Sweetwater District, located in National City and Chula Vista (south of central San Diego), offered a unique opportunity to investigate the efficacy of formal geography education, as schools in the district have recently implemented a geography class for all 9th grade students.

We undertook two main data collection efforts: intercept surveys of college students on SDSU campus, and surveys and semi-structured interviews with 9th and 10th graders who have taken or are taking geography classes in the Sweetwater School District. In total, we collected 145 college student surveys, as well as 24 surveys with high school students. Interviews were conducted with the same 24 high school students who took the survey, which were then transcribed and coded using qualitative data analysis software.

The survey incorporated multiple choice questions about global issues and map knowledge

loosely based on past large-scale National Geographic surveys. We used participatory methods and consensus to design our survey in Dr. Swanson's classroom, yielding a survey that was short, yet covered many contemporary issues. Survey respondents were also asked open-ended questions about global issues that they cared about.

The results from the survey should be read with its limitations in mind. Sample sizes were small, and the domain measured was broad in scope. The survey did not measure depth of geographic knowledge, but rather awareness of particular geographic facts. Also, in contrast to many situations where geographic awareness is exercised, respondents had no preparation beforehand.



# Summary of Findings

The majority of American students lack formal geographical training. This study was conducted to investigate whether improved geography education would enhance students' knowledge and understanding of the world around them. Study results yielded the following statistics and insights:

- College students scored significantly higher than high school students on the survey portion of the study, and tenth graders scored slightly higher than ninth graders.
- International travel to three or more countries after graduating from high school was associated with higher levels of geographical awareness.
- Both college and high school students professed interest and concern about global issues including politics, climate change, human rights, immigration, and war.
- High school geography classes garnered interest and engagement from previously indifferent students.
- High school students directly attributed their awareness of the world to their participation in a geography class.
- 10th grade students who had completed a geography class scored higher on the survey than 9th grade students currently enrolled in a geography class.

- Geographic awareness may be also be influenced by informal sources of knowledge including media consumption and kinship bonds.

These findings are discussed in more detail in the following pages, with data from both the surveys and interviews. Findings from interviews support the claim that geography classes provide unique value by providing students with global awareness and perspective.

## Sample Global Issues Questions

Which of the following countries has the world's largest Muslim population?

- a) Indonesia
- b) Russia
- c) India
- d) Iraq
- e) I don't know

Which language is spoken by the most people in the world as their primary language?

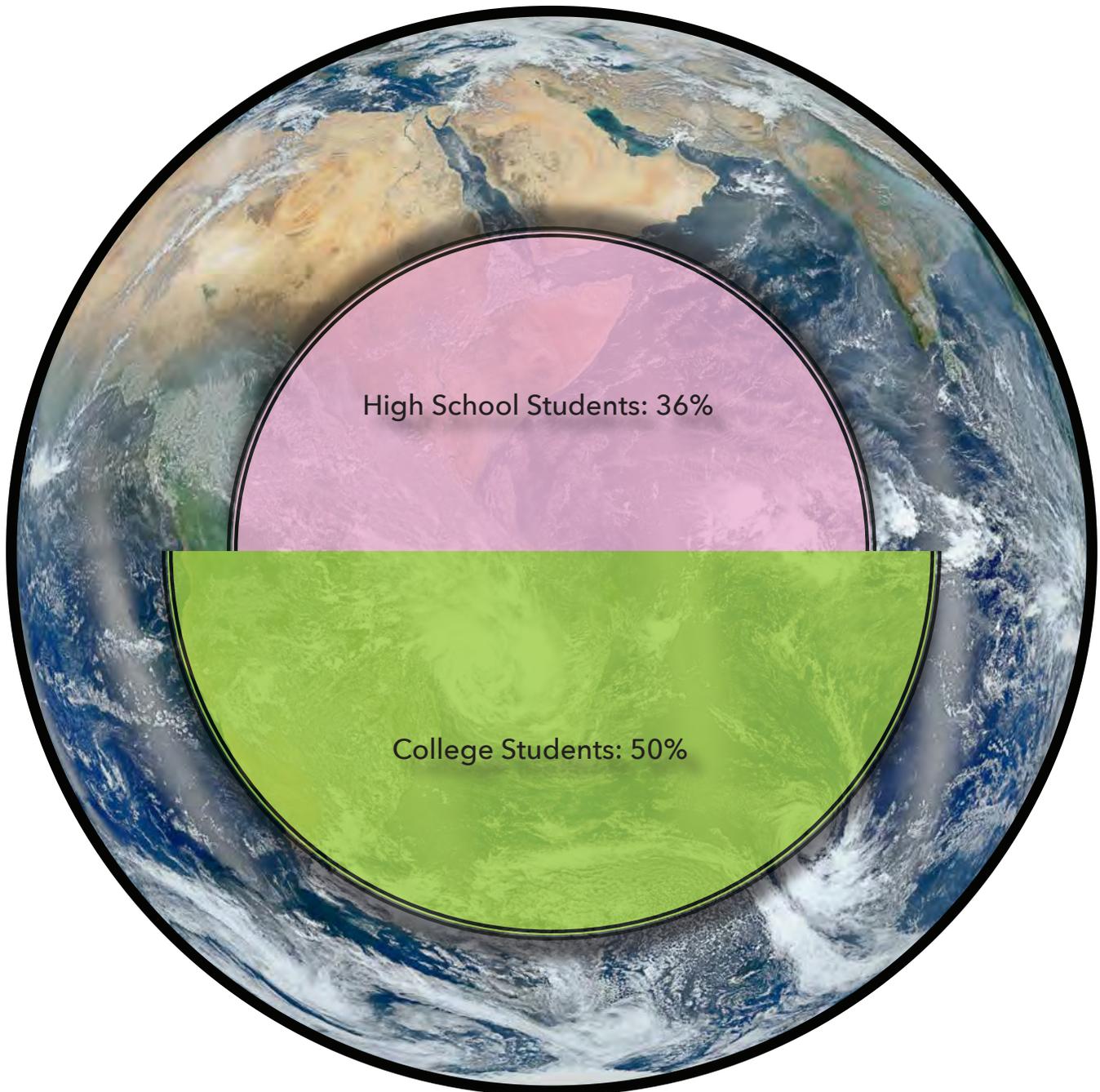
- a) English
- b) Mandarin
- c) Hindi
- d) Spanish
- e) I don't know

Which country currently emits the most greenhouse gases?

- a) United States
- b) Canada
- c) India
- d) China
- e) I don't know

# Geographical Knowledge

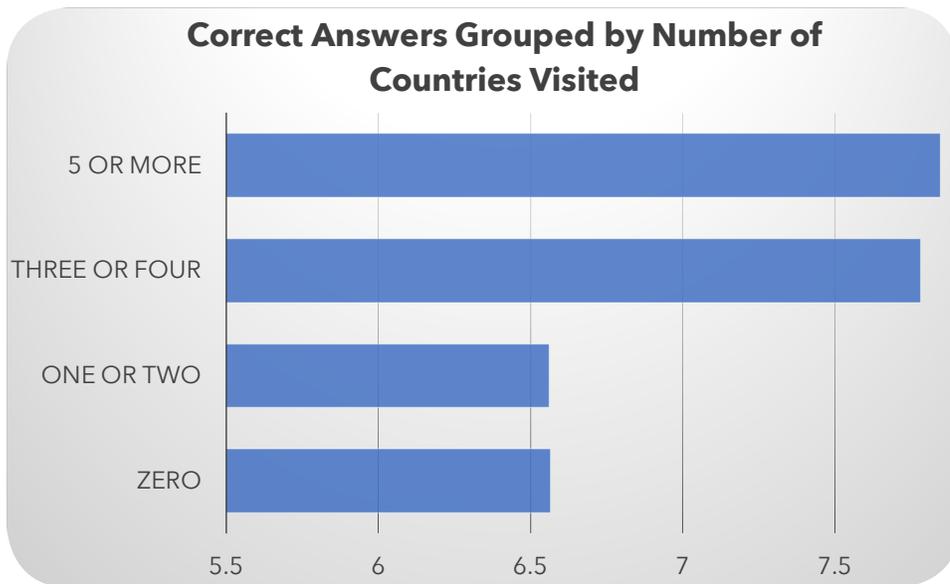
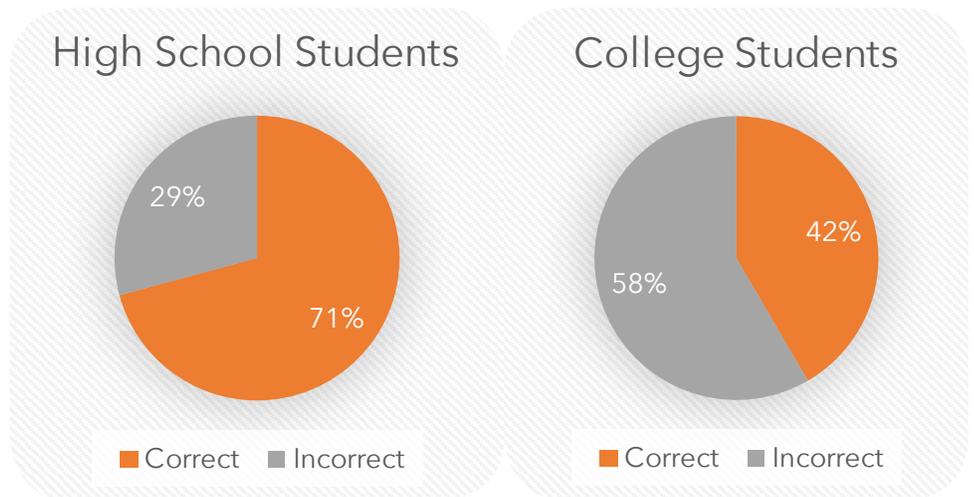
*Correct answers on a set of questions about global issues and country identification:*



College students answered more questions correctly on the geographic awareness survey, with a mean of 7 correct answers out of 14 (s.d.: 3.1). High school students averaged 5 correct answers out of 14 (s.d.: 2.2). 10th graders who had taken geography in 9th grade answered more questions correctly than 9th graders currently enrolled in a geography course (39% and 33% correct, respectively). Because the difference between correct answers by high school students and by college students is statistically significant, we can make limited inductive statements from this data, including that these results point to a trend of students accumulating geographical knowledge over years spent in school.

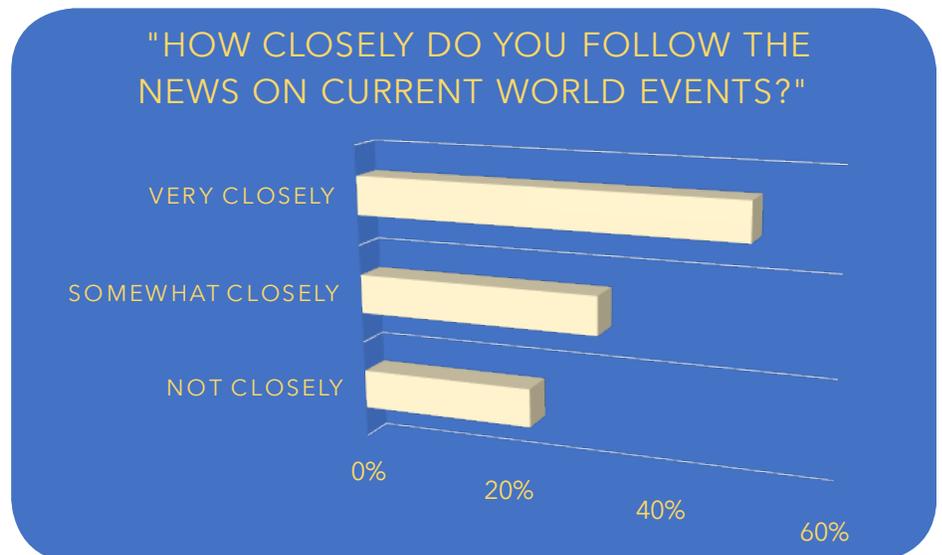
# Selected Survey Question Statistics

High school students correctly answered “Who is the current President of Mexico?” at a much higher rate than college students.



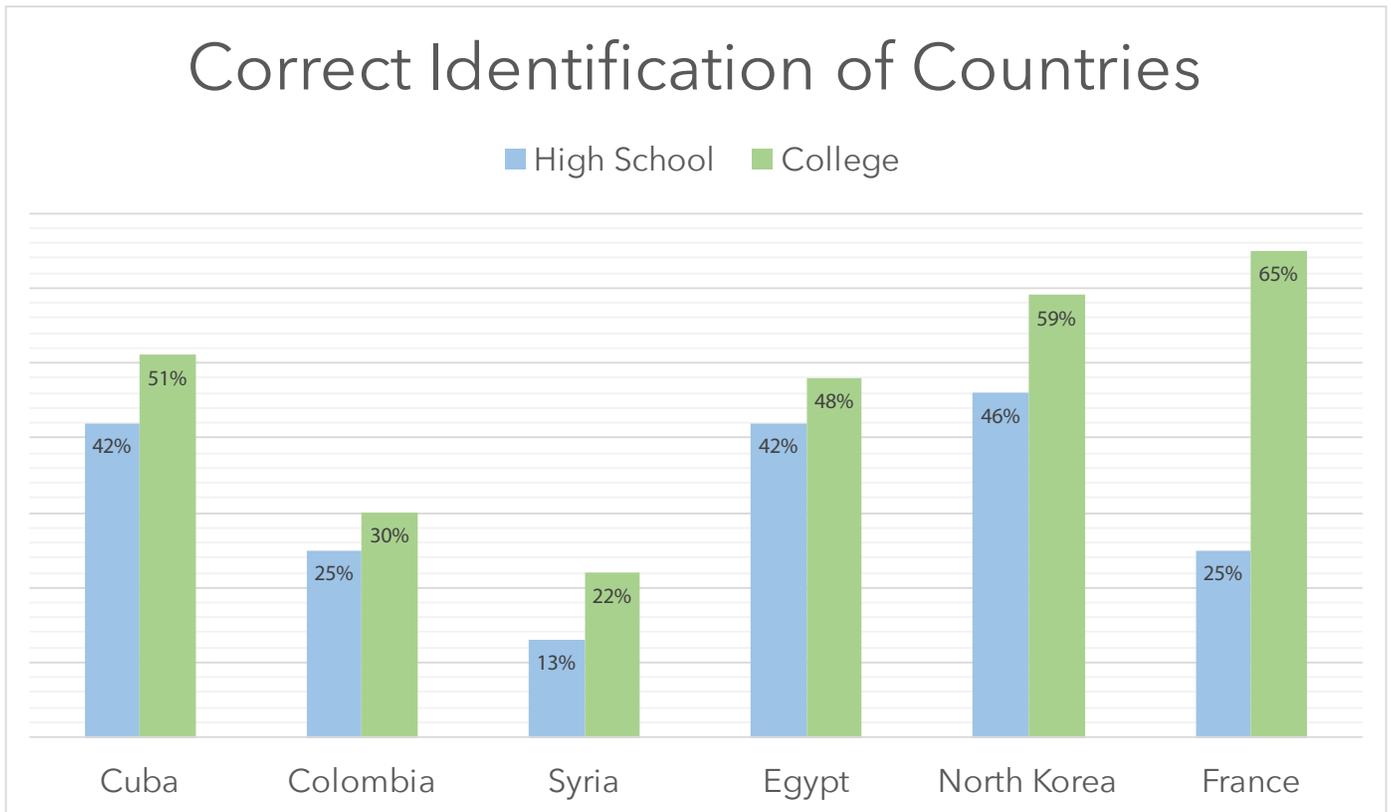
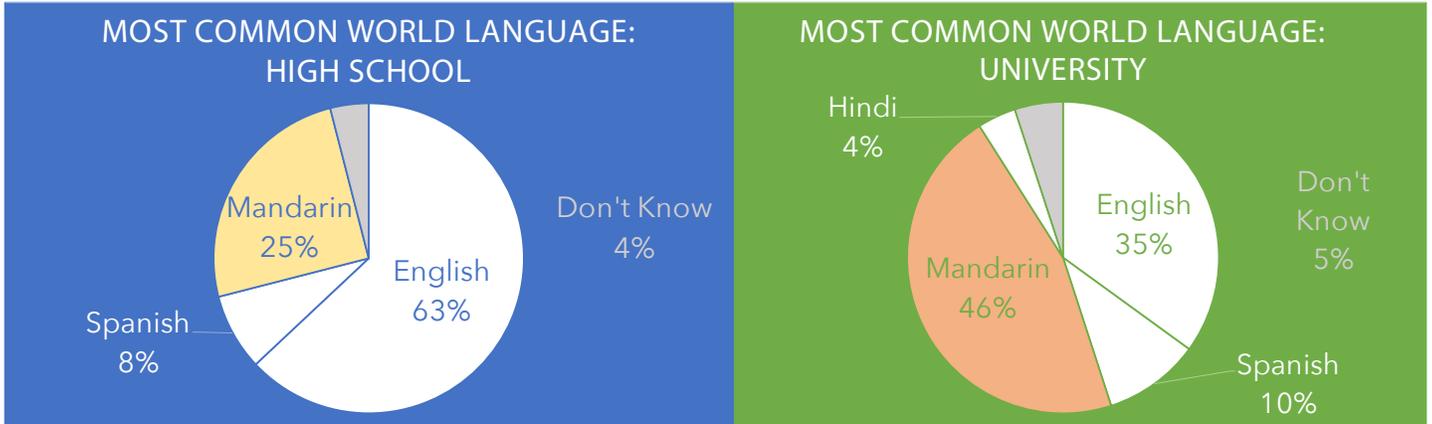
College students who had traveled to three or more foreign countries gave 20% more correct answers than those who had not.

Following the news more closely was associated with higher survey scores in college students.



# Selected Survey Question Statistics

A majority of high school students surveyed responded that English was the most commonly spoken language in the world, while 25% correctly identified Mandarin. Knowledge of this fact was more common among college students.



College and high school students correctly identified countries on a map in proportions similar to the overall score of their cohort, France notwithstanding.

# Global Issues of Concern

College students were asked a question about global issues. Frequent concerns are shown below.



# Interviews with Sweetwater Students

*In 24 interviews with 9th and 10th grade students from Sweetwater District schools, we explored a wide variety of topics related to global issues and geography education, with a focus on students' experience in their geography classes. The following section highlights concepts and themes that emerged during the interviews.*

## concerns

Students expressed concerns about a wide variety of issues, ranging from personal to political, and local to global. Many students reported that their geography class helped them develop their perspective on these issues.

*Do you think American students need a geography education?*

"Yeah, because I don't think most kids know what is going on in the world. Like, I don't think a person who doesn't have a geography class knows what's going on in Syria unless like they're looking at the news."

## curiosity

Students frequently mentioned learning things in their geography class that brought clarity or connections to existing knowledge, and led them to want to learn more.

"I actually liked learning most about the culture. They really taught us about how people viewed religion and their traditions. Something that we're really not exposed to but it was pretty mind-opening. They would do other types of rituals that we would think of it as weird, just crazy, but for them it's something natural, something that they're proud of."

## human rights

Students spoke about human rights often, with concern for specific issues including immigration rights and gender discrimination. A documentary on Malala Yousafzai shown in class sparked enthusiasm and identification from students. Students said their class led them to feel conscientious about human rights issues.

*Regarding refugees from the civil war ongoing in Syria:*

"It's not fair to them that they got involved in a war that they shouldn't have been in, they were already suffering from a lot of poverty and on top of that, they got bombings and had to leave their place. Just because they're Syrian they got like accused of like bombing places like in France. And like everywhere they go they're just getting accused of things that they didn't do and it's not fair to them."

## global issues

Global scale and geopolitics were mentioned by many students. Some talked about family and friends who spoke different languages or lived in other countries, and many offered thoughts and insights on how globalization influences trade and culture.

"During 9th grade, one of my teachers invited a guy from Uganda, and he showed us that there are people over there [who] had to walk miles just to obtain water. We actually grabbed bottles of water and tried to carry them, gallons even, and it was pretty hard. For them to have to carry five gallons, we could barely manage two. It was really shocking to us."



## poverty

In several interviews, students talked about how their geography class had led them to consider poverty in a global context, thinking on scales from local (within San Diego county) to global (developing countries & refugees.)

"I would say poverty because poverty, many would say, 'Oh he has clothes, he has sort of food, so he's fine. But there are other things that parents are worried about. They're not just worried about food, they're worried about their education and poverty has been, in multiple cities, it has been shown to be classified as a medical situation, so it's pretty shocking that they aren't really looking into it."

## enthusiasm

Many students said that they had enjoyed taking a geography class, because they found it interesting, practical, or both. Some mentioned intentions to apply what they had learned to a future job, goal, or circumstance in their life.

*What are some of the ways you might use this knowledge and skills you learned from the class into your life?*

"If I go to a new place or if I need help, like we learned how to read a map. I guess if I needed to go to a new place I would know which places are in poverty, which places are in war, and I could help them. So I could go volunteer and help people that are in need."



## environment

Concern about environmental issues came up in nearly every interview. From climate change to pollution, deforestation to recycling, geography courses fostered consciousness of earth's environment.

*In the geography class that you're in right now, do you cover current world events?*

"Well we're gonna talk about debate and the political election and all that on election day. We have been, we watched a video about this lead dump in Mexico and this person and there are people who are born without skulls or brains, no fingernails, they get hives and rashes because of lead poisoning in their community and no one is doing anything about it."

## education

Students were asked about informal ways, like news and social media, that they used to learn about global issues. They mentioned that perspectives could vary based on medium and language. Many said the structure and context of their class was beneficial to them.

*On the benefits of taking a geography class:*

"I actually liked it more in the classroom so you could actually discuss it. Something we couldn't really do openly in social media; we usually just go with the flow of other people and their opinions. Over here [in school] you can actually be [open-minded] about it. You can actually get the true facts about it and not just a sweet taste of what it is."

# Recommendations

*The reality of California schools is that they are diverse, the reality of California's economy is that it is global, and the reality of society is that it is increasingly interconnected. Today's graduates need to be well-rounded and globally competent to thrive, not just survive, in the ever-changing twenty-first century environment.*

-- California Department of Education, 2016, pg. 12

In a recent report, the California Department of Education urged educators to make global competency a priority for all pre-kindergarten through 12th grade students. Given its broad focus on the interconnectedness of people, places and environments around the world, geography education is ideally suited to expanding global perspectives and to helping students understand their roles as global citizens. In other words, in order to achieve global competency, geography education is vital.

Yet, despite a growing need for global and geographic education, our study confirms the dire lack of geographic knowledge among high school and college students in San Diego County. These findings are in line with similar studies conducted at the national level (CFR, 2016; GAO, 2015; National Geographic, 2006). Clearly, this points to a need to improve geographic education in schools across the state of California.

The advantages of a geographic and global education lens are clear. Students who had taken Sweetwater District's new 9th grade Human Geography course credited this class for enhancing their sense of global citizenship, and 10th grade students who had taken the course the year before scored higher on the awareness survey. Moreover, both 9th and 10th grade students expressed increased interest, appreciation and concern for a range of social and environmental issues around the world. In today's world, fostering more globally aware citizens is critical.

Given our findings, we recommend the following actions at the local and state level:

- Advocate at the school and district level for geography and global studies in curriculum, instruction, assessment, and professional development activities; ensure that Local Control Accountability Plans (LCAP) specify these needs.

(continued)

# Recommendations

- Use the inquiry arc presented in the College, Career, and Civic Life (C3) Framework for Social Studies Standards and included in the new California History-Social Science Framework. This process reflects how geography is used to make decisions, think critically, ask important questions, and present compelling arguments. The inquiry arc also helps make geography instruction more student-centered and relevant. It helps teachers support students in building understanding and empathy, developing their own questions, and using geographic information and analysis to answer those questions.

- Integrate geospatial technologies and STEM education (such as ArcGIS online, ESRI Storymaps, and Google Earth) to promote science and social science education; coordinate with College and Technical Education (CTE) programs as well. Technologies can be very engaging for students and can help them connect local experiences to global patterns and processes.

- Make use of the ample resources provided by geography education organizations, including the California Geographic Alliance (CGA - <http://calgeography.sdsu.edu/>) and the National Geographic Education Society (<https://www.nationalgeographic.org/education/>). Work with organizations, such as the CGA, to address educational needs and develop customized professional development strategies to advance geography instruction in schools, districts, and counties.

Today's world requires complex thinking in order to solve deeply interconnected social and environmental issues across the globe. As stated by Geographer and Esri Education Manager Joseph Kerski, "To grapple with these issues requires graduates that have a firm foundation in spatial thinking, skills, and foundations; those who can see the 'big picture' but that understand how different patterns and trends are related from a global scale down to the local community" (Kerski, 2016). Geography education is perfectly situated to fill a gaping hole in our students' education. We urge educators and administrators to find ways to incorporate more geographic and global education into California's school curriculum.

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