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Localizing the PISA Initiative to Tackle Educational Inequity—Case Study on UCSB Students

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Abstract

The purpose of this study is to analyze the effectiveness of the global Programme for International Student Assessment (PISA) in tackling educational inequity, with an emphasis on the academic experiences of UCSB students. This research was done amidst the various controversies among local academic institutions, which included the 2019 California college admissions scandals and 2020 cost of living adjustment (COLA) protests. PISA is primarily a top-down initiative as it mainly champions educational equity through collaborations with government officials. This neglects the key role of community actors, such as governors and principals, and does not account for localized complexities, such as federalism in the United States. To identify bottom-up approaches that would complement PISA, a pilot study on the academic experiences of UCSB students was done. Key findings included 88% of the respondents coming from counties with higher standards of living, and only 3% having considered an overseas university education. The paper thus suggests that the global PISA initiative is inadequate in resolving localized educational inequities and raises two bottom-up programs – college open-day sessions in disadvantaged counties and local forums on state education policies – to improve socio-spatial disparities in educational equity.

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Introduction

The common adage, “knowing is half of the battle,” highlights the importance of recognizing and understanding an issue. However, half the battle is not enough. The second half is the implementation of a solution. This research paper focuses on educational inequity and elaborates on how the Organisation for Economic Co-operation and Development (OECD) tackles the widespread issue through their renowned Programme for International Student Assessment (PISA). However, the global initiative has shown itself as only adequate in fighting the first half of the battle and falls short in achieving actual results for the everyday, local student. This shortcoming fuels the debate on whether to implement top-down approaches (forcing behavior change through policy) or bottom-up approaches (influencing policy through behavior) in education policy making. As the debate continues, this study emphasizes that an over-dependence on top-down approaches – evident in PISA – would be to the detriment of educational equity. In order to help identify complementary bottom-up approaches, primary data was gathered from students at the University of California, Santa Barbara (UCSB). The findings revealed trends in socioeconomic profiles and academic choices, which led to the proposal of two local programs that would improve area-specific educational inequities

BACKGROUND ON PISA AND EDUCATIONAL INEQUITY

The 21st century saw the initiation of PISA by the OECD, and 70 countries and economic zones now take part in the triennial international standardized assessment (Annex A). PISA aims to aid countries in their education policy making processes, whereby, in the recent decade, the OECD has placed particular emphasis on combating educational inequity (OECD, 2018). Educational equity means that personal or socioeconomic circumstances, such as ethnicity, sexual orientation or household income, are not barriers to achieving academic potential (OECD, 2012). PISA plays its part by providing various measures on educational equity, such as equity in cognitive achievement, student well-being, and educational attainment (OECD, 2015).

Educational inequity has been reported to be an increasingly global issue, especially in the context of a growing socioeconomic gap (OECD, 2018). Gallup has identified five main socioeconomic classes, which are – from the lowest to the highest – the lower class, working class, middle class, upper-middle class and upper class (Gallup, 2020). In recent scholarship on socioeconomic inequality, more general terms have been used, which mainly included

binaries of advantaged and disadvantaged students. There have been various measures used to identify these two camps, such as gender, ethnicity or whether their parents had received higher education.

However, the common consensus is that there has been an increasing concentration of disadvantaged students in less prestigious schools and concentration of advantaged students in prestigious institutions. This phenomenon confounds the issue of educational inequity as the socioeconomic profiles of schools are shown to have a substantial role in shaping academic outcomes. If socioeconomic segregation persists, it could possibly mean that disadvantaged students would remain trapped in a cycle of poverty, whilst advantaged students propel up the academic ladder. This worsens the current widening socioeconomic divide.

PISA is thus a viable means of tackling this widespread issue by creating awareness, mainly through the publication of country-specific demographic and academic datasets from their triennial standardized tests. Based on the profiles of students who took the PISA tests, the OECD is able to come up with a representative dataset of the socioeconomic status (SES) of the general student population, which includes income levels, educational status of parents, and access to academic resources. The comparison of academic performance and demographic information is key in judging educational equity (OECD, 2018). The greater the disparity that PISA finds between these two categories, the greater educational inequity is in that country. This is how the OECD is able to reach their target population, who are the disadvantaged students of a given country.

The implementation strategy of PISA, which is rather grey and broad, is based on the idea that knowing and being aware of the issue is half of the battle won. The large country-specific datasets, when shared with a particular government, can be compared with data from another country and thus, their programs or policies that have helped or hurt it. OECD then collaborates with governments and policy makers, who are responsible for the implementation of policies that would reduce the equity gap. As the OECD cannot make direct policy changes, the organization relies on social and political connections, as well as the openness of governments.

CONTROVERSIES AND DEBATES OF PISA

It should be noted that even with the existence of its flaws, PISA is an invaluable initiative that efficiently measures country-specific demographic trends and academic standards. The standardized testing system, at present, fulfills its basic job of testing educational

equity within countries. However, as governments are the main intermediary and entity responsible for improving academic systems, PISA is shown to take on a rather top-down approach in tackling educational inequity. This brings about various issues, with the main one being the fact that the OECD is limited to a consultative role, which does a disservice to its global efforts in collecting reputable data for needed changes in underperforming academic systems (Mortimore, 2009).

There is debate over whether or not to utilize a top-down or bottom-up approach to education (Gür et al., 2011). Many OECD countries utilize a top-down approach. However, Finland, which is praised highly for its academic performance and levels of socioeconomic equality, is often brought up as a successful example of a bottom-up education system. In a study done by Jenna Lähdemäki (2018), it was found that the success of the Finnish education system was attributed to its distinctive bottom-up culture, whereby new practices and initiatives within classrooms could be effectively scaled up to the level of the institution.

The top-down approach may also be considered lacking when taking into consideration large countries, such as the United States, which has multiple governmental authorities with varying levels of executive power. This brings about a prime example of the controversies in federal versus state involvement, whereby there is uncertainty in how involved the federal government should be in tackling educational inequality as compared to state-level authorities. In the United States, education is viewed as under state jurisdiction and supported by the federal government. This means much opposition to federal involvement in educational matters. In Paul Manna's book, *Collision Course: Federal Education Policy Meets State and Local Realities*, he used the No Child Left Behind Act (NCLB) as an example of the issue of mixing federal and state governance in education policies. With NCLB, "conservatives worried about the expansion of federal programs, even as they applauded the oversight. Liberals fretted over whether the program would provide enough aid to allow local schools to meet the tough standards but found comfort in federal support" (Manna, 2010). The interplay and tension between federal and state governance shows that even though the OECD could recommend changes to education policies, internal political bureaucracies could act as barriers to actual change. Thus, governments, as a key intermediary in the PISA implementation strategy, might not be the most effective or efficient bodies to bring about improvements

to educational systems or environments.

Giving an opportunity for local actors and communities to make a difference to their academic environments would complement the vital and comprehensive top-down approach of PISA. The OECD has so far lacked in their collaborative efforts with local actors, such as governors, teachers and community leaders, who are at the forefront of educational inequity; witnessing and experiencing the area-specific challenges in academic attainment and social mobility.

RESEARCH DESIGN AND METHODOLOGY

A case study was designed to help the researchers identify possible local and bottom-up implementation strategies that would complement PISA. This case study can be used as a launching pad for future local initiatives by the OECD.

Online Surveys

An online survey was created to consolidate local experiences and data on the levels of educational equity. This was sent to its target audience, which were in-state undergraduate students from UCSB, through various media channels, such as Facebook and WhatsApp.

The survey inquired of the socioeconomic origins and academic choices of UCSB students (Annex B). The SES of the respondent was uncovered through various demographic questions, such as what was their ethnicity, which county they belonged to, as well as their family status. The academic journey of the respondent was revealed through questions asking for their weighted GPA and ACT scores, university choices, and post-college aspirations. Data on the SES and academic choices of the students were consolidated to help the researchers study the levels of educational equity at UCSB.

For example, if there was a sizable number of low-SES students at UCSB, who had achieved good academic results during their pre-university years, it would indicate high levels of social mobility and reflect well in terms of educational equity. On the other hand, if there was a sizable number of high-SES students at UCSB, who had achieved poor academic results during their pre-university years, it would indicate low levels of educational equity. This can be applied to other personal and social circumstances such as

gender, ethnicity and sexual orientation.

The survey also inquired of the educational and career trajectories of the student population and drew linkages to their personal and social circumstances. For example, if high-SES students with low academic results found themselves confident in entering lucrative jobs or high-status schools and low-SES students with high academic results found it likely that they would enter vocational occupations, this would hint of low levels of equity.

Survey Design

Data collection was done through online surveys, whereby the non-probability sampling method of convenience sampling was found to be the most efficient means of collecting data. This meant that accessibility and availability were key components in the data collection and respondents only completed the survey if they were willing to. Though convenience sampling has its drawbacks, it is reported to be an adequate means of data collection for pilot studies (Albert et al., 2010), which would be reflective of this exploratory study.

Administration

A total of 16 questions (Annex B) were asked and these questions were kept within the recommended 20-word limit (Cloke et al., 2004). The survey was kept short to maximize the number of responses and limit impartial submissions. The survey also had a variety of types of questions, which included yes/no questions, short answer questions, checklist questions, in order to ensure that results encompassed both quantitative and qualitative results. It should also be noted that the results of the survey were used only for this research and anonymity was kept throughout the administration of the survey, whereby their names and emails were not collected.

Limitations

Due to the structure of the research course, the survey was only approved for circulation on 21 February 2020 and was closed on 9 March 2020. The research team also encompassed only four individuals, two of which were exchange students who had only been in UCSB for a few months. This limited the social networks available when finding respondents. Furthermore, only UCSB was chosen due to the inability of the researchers to conduct research at other universities. Future research could explore surveying populations at the private universities that were involved in the 2019 California

college admissions scandals

RESULTS AND KEY FINDINGS

A total of 94 students responded to the online survey, which almost doubled the initial goal of 50 respondents (Table 1). In order to maximize the credibility of the findings, the researchers only highlighted those results with vast disparities in student responses. These significant disparities were later on identified to be key findings, as compared to results with smaller statistical differences, such as a 60-40 per cent divide in responses.

	Socioeconomic Class					Total
	Lower	Working	Middle	Upper-middle	Upper	
Gender	9	21	33	26	5	Total
Female	5	16	18	14	4	57
Male	4	5	13	11	1	34
Non-binary	0	0	2	1	0	3
Year	9	21	33	26	5	Total
Freshman	1	3	3	5	0	12
Sophomore	2	4	6	4	2	18
Junior	2	0	8	7	2	19
Senior	3	13	14	9	1	40
Ethnicity	9	21	33	26	5	Total
Asian	5	6	7	7	0	25
Black	0	1	1	1	0	3
Latinx	2	8	4	1	0	15
Mixed	0	1	8	3	2	14
White	2	5	13	14	3	37

Table 1. Demographic overview of the 94 respondents.

In terms of academic merit, there were no notable trends of educational inequity as in general, most of the students achieved good high school GPAs, as well as SAT and ACT scores (Table 2). If anything, some from lower socioeconomic classes achieved lower academic scores, which agreed with modern literature, whereby disadvantaged students are less likely to perform as well as their advantaged peers due to a relative lack of resources.

	Socioeconomic Class					Total
	Lower	Working	Middle	Upper-middle	Upper	
GPA						Total
2.0 - 2.4	1	0	0	0	0	1
2.5 - 2.9	0	0	1	0	0	1
3.0 - 3.4	0	0	4	3	0	7
3.5 - 3.9	4	9	11	3	0	27
4.0 - 4.4	2	12	14	14	3	45
4.5 - 4.9	1	0	2	6	2	11
5	0	0	1	0	0	1
SAT / ACT						Total
1000 or below SAT or 16 or below ACT	1	0	0	0	0	1
1001-1200 SAT or 17-21 ACT	2	0	2	0	0	4
1201-1450 SAT or 22-27 ACT	4	12	7	7	1	38
1451-1600 SAT or 28 or higher ACT	2	16	10	16	4	41

Table 2. Academic overview of the survey respondents.

The 94 respondents came from a total of 23 out of the 58 counties in California. As a quarter of the students reported to be from the Los Angeles county, it could be postulated that one was more likely to enter UCSB if they were from the Los Angeles county. When the population sizes of counties were taken into consideration, the researchers found that a notable percentage of respondents were reported to be from smaller counties, such as Santa Clara and Contra Costa. Furthermore, 17 of the 23 counties were noted to be in the top 20 counties for highest quality of living (Figure 1), as created by the academic ranking site Niche (Niche, 2020). These results show that where a student lived mattered as one was more likely to enter UCSB if

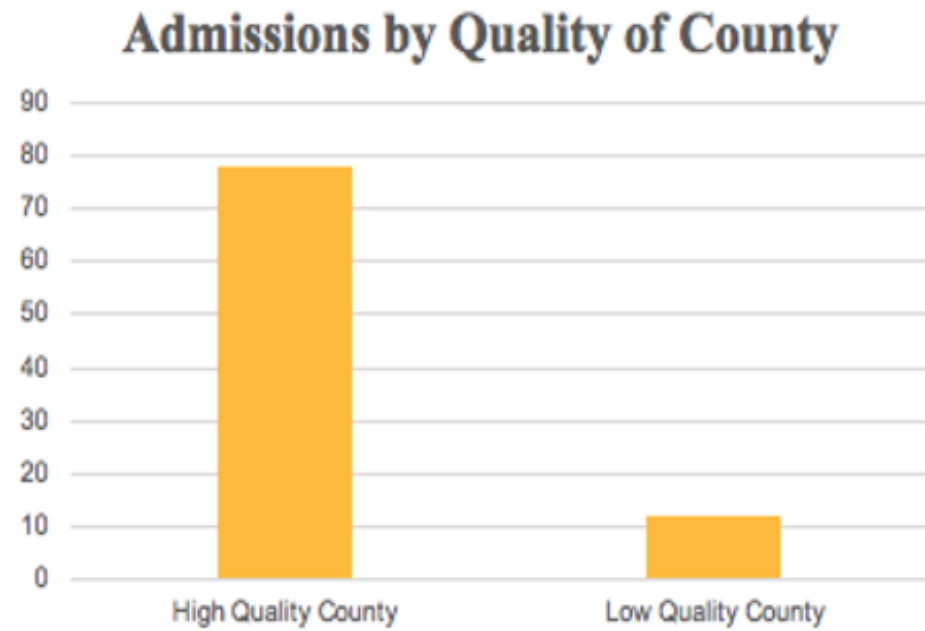


Figure 1. 88% of respondents came from the top 20 highest quality of living counties.

The survey also showed that most students did not consider studying abroad to pursue higher education (Figure 2). With only 5 respondents considering an education abroad, in terms of a growing socioeconomic divide, this result seemed particularly puzzling. Colleges in the United States are known to have one of the most expensive tuition fees globally and cheaper alternatives, even for international students, can be found in renowned universities abroad. English-speaking regions with reputable universities include the likes of Scotland, Canada and Singapore. Especially with the existence of overseas academic scholarships, an international educational experience could be a viable avenue for social mobility

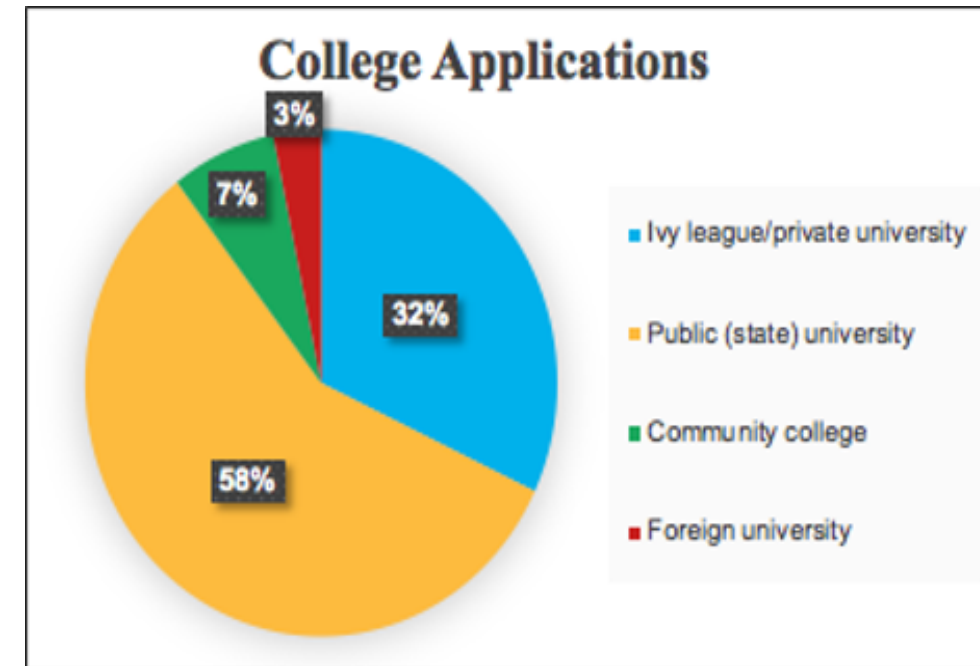


Figure 2. Only 5 out of the 94 respondents considered foreign universities as possible avenues for higher education.

Modern literature has identified that the average successful response rate for surveys was about 10%, and it could then be postulated that about 900 students were contacted for this survey. This was especially likely because of the use of social media to contact possible respondents. However, the data collected still does not offer a precise or sufficiently detailed idea of all the conditions that affect the academic experiences of UCSB students. It is therefore important to increase the pool of respondents in order to achieve a representative sample size of at least 10% of the undergraduate population, which amounts to about 1,800 students.

However, this pilot study has still highlighted specific results with significant disparities in student responses, such as 88% of students coming from counties with high standards of living and only 5 respondents having considered pursuing higher education abroad. These results are area-specific, or rather, relevant to those from the UCSB community. Whether it is the lack of academic resources in disadvantaged counties or lack of awareness of study abroad opportunities, these local inequities would not come under the radar of the PISA initiative and its top-down policy making approach. As such, the research-

ers have suggested two local programs, in relation to the UCSB community, that could act as a complement to the PISA initiative

PROPOSALS TO LOCALIZE THE PISA INITIATIVE

College Open-Day Sessions

The researchers propose that PISA should host several college open-day sessions. These open-day sessions should be held in counties with lower standards of living, such as Fresno, Kern and Riverside. The geographical selection is important to not only maximize outreach, but raise the levels of educational equity in California by bringing academic opportunities to the counties where less fortunate students live. Moreover, future local surveys would be able to verify not just the effects of hometown origins, but the effects of other personal and social circumstances that impact academic opportunities and outcomes. For example, if ethnicity and family status are major barriers in educational equity in Los Angeles and San Francisco respectively, the college open-day sessions in Los Angeles should focus on ethnicity and discussions on family status should be held in San Francisco. This helps to meet the actual needs and disadvantages of particular geographies.

The researchers also suggest that PISA establish agreements with foreign universities, whereby these universities could attract potential Californian students at the college open-day sessions. PISA, with its global presence, has the ability to reach out to renowned academic institutions, who might be looking for more avenues for revenue. The large youth demographic in California offers foreign academic bodies a reason to join the college open-day sessions to attract prospective international students. The appearance of representatives from foreign universities at the open-day sessions should also accompany a list of possible scholarship opportunities and counselling services on studying abroad. As more Californian students and parents learn about affordable international opportunities, it would provide another alternative route for social mobility.

Local Forums on Education Policies

PISA should also organize a series of bimonthly forums, whereby policy makers would present relevant updates to local education policies. The key feature of the forums would be the inclusion of local leaders from the various communities, and an open interactive setting to seek answers from those in executive authority.

The four objectives of these local forums would be to (1) establish a common line of action in tackling educational inequity, (2) estab-

lish a time frame to implement the new actions, (3) encourage the exchange of good practices between more and less virtuous states, and (4) host international representatives and experts in the field, such as Ministers of Education from foreign countries with high levels of equity in education.

Local forums are a viable means for PISA to promote better results in educational equity, not only for California, but for the United States in general. As of 2017, some considerable steps have been made toward a more egalitarian system, and a substantial number of states have begun to provide funding programs for less wealthy students; for example, the “California Promise Program” that was launched in 2018 (Rose, 2018). Nevertheless, the states proposing these sort of programs are still a minority and existing programs could certainly still be improved. Furthermore, many of such education policy initiatives are exclusively for students living in the same state, where the program was launched, and this means that disadvantaged students from other states might remain at a disadvantage.

Though this research presents only preliminary results and proposals, the researchers argue that this is an assiduous confrontation on the sensitive and widespread issue of educational inequity. Through multi-level government collaborations, based on horizontal dialogue and experience sharing, PISA can further expand its influence with the inclusion of a wider variety of local actors in everyday education. This would be effective in raising levels of educational equity – locality by locality – and create more in-depth and targeted discussions on the current realities of educational inequities

ANNEX A - COUNTRIES AND ECONOMIC ZONES IN PISA 2015

OECD Countries		OECD Partners	
Australia	Korea	Albania	Lithuania
Austria	Latvia	Algeria	Macao (China)
Belgium	Luxembourg	Brazil	Malta
Canada	Mexico	B-S-J-G (China)	Moldova
Chile	New Zealand	Bulgaria	Montenegro
Czech Republic	Norway	CABA (Argentina)	Peru
Denmark	Netherlands	Costa Rica	Qatar
Estonia	Poland	Croatia	Romania
Hungary	Portugal	Colombia	Russia
Finland	Slovak Republic	Cyprus	Singapore
France	Slovenia	Dominican Republic	Chinese Taipei
Germany	Spain	FYROM	Thailand
Greece	Sweden	Georgia	Trinidad and Tobago
Iceland	Switzerland	Hong Kong (China)	Tunisia
Ireland	Turkey	Indonesia	United Arab Emirates
Israel	United Kingdom	Jordan	Uruguay
Italy	United States	Kosovo	Viet Nam
Japan		Lebanon	

PISA 2015 took place in 70 countries and economic zones (OECD, 2018).

ANNEX B - ONLINE SURVEY QUESTIONS

1. What year are you currently in?
2. What gender do you identify as?
3. What is your race/ethnicity?
4. What is your age?
5. Where would you consider to be your hometown in California?
6. What best describes the socioeconomic status of your family?
 - o (a) Lower class; (b) Working class; (c) Middle class; (d) Upper-middle class; (e) Upper class
7. What was your high school GPA (weighted)?
8. What were your SAT or ACT results?
9. Was UCSB your first choice?
10. Did you apply to other colleges?
11. If you did apply to other colleges, what type/s did you apply to? (Check all that apply)
 - o (a) Ivy League or private university; (b) Public (state) university; (c) Community college; (d) Foreign university
12. Which of the following personal and social circumstances has or have affected your academic potential and outcomes? (Check all that apply)
 - o (a) Gender; (b) Race/Ethnicity; (c) Socioeconomic status; (d) Hometown or local neighbourhood; (e) Sexual orientation; (f) Political beliefs; (g) Other
13. Have you ever considered not pursuing college education and going straight into the workforce?
14. Do you wish to pursue further education after your undergraduate studies?
15. What job industries do you think you will go into?
16. How do personal or social circumstances affect your career decisions?

BIBLIOGRAPHY

- Albert, B., Tullis, T. and Tedesco, D. (2010) Chapter 2 – Planning the Study. *Beyond the Usability Lab*, 17-47.
- Cloke, P., Cook, I., Crang, P., Goodwin, M., Painter, J. and Philo, C. (2004) *Practising human geography*. London: SAGE Publications Ltd.
- Estrada, A. (2018) The Top Five. [Online]. Available from: <https://www.news.ucsb.edu/2018/019172/top-five> [Accessed March 1, 2020].
- Gallup (2020) What Determines How Americans Perceive Their Social Class? [Online] Available from: <https://news.gallup.com/opinion/polling-matters/204497/determines-americans-perceive-social-class.aspx> [Accessed March 1, 2020].
- Gür, S., Zafer, C. and Murat, O. (2011) Policy Options for Turkey: A Critique of the Interpretation and Utilization of PISA Results in Turkey. *Journal of Education Policy*, 27(1), 1–2.
- Lähdemäki, J. (2018) Case Study: The Finnish National Curriculum 2016—A Co-Created National Education Policy. *Sustainability, Human Well-Being, and the Future of Education*, 397–422.
- Niche (2020) 2019 Best Counties to Live in California. [Online]. Available from: <https://www.niche.com/places-to-live/search/best-counties/s/california/> [Accessed March 1, 2020].
- Manna, P. (2010) *Collision Course: Federal Education Policy Meets State and Local Realities*. Washington D.C.: CQ Press College.
- Mortimore, P. (2009) *Alternative Models for Analysing and Representing Countries' Performance in PISA*. Education International Research Institute, Brussels.
- OECD (2012) *Equity and Quality in Education: Supporting Disadvantaged Students and Schools*. OECD Publishing.
- OECD (2015) *PISA 2015 Results in Focus*. OECD Publishing, Paris.

OECD (2018) Equity in Education: Breaking Down Barriers to Social Mobility. OECD Publishing, Paris.

OECD (2018) PISA. [Online]. Available from: <https://www.oecd.org/pisa/> [Accessed March 17, 2020].

Rose, A. (2018) California's College Promise: Moving Beyond the Call for Free College for All. [Online]. Available from: <https://calbudgetcenter.org/blog/californias-college-promise-moving-beyond-the-call-or-free-college-for-all/>. [Accessed March 17, 2020]

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Iacopo Taddia is a graduate student from Italy. He graduated last July in International Relations and Diplomatic Affairs at the University of Bologna. He is currently enrolled in a Master's degree in Politics and Governance in the Global World. His academic interests are the European Affairs and the Minorities Rights.

Joshua Ee is pursuing an honours degree in Geography at King's College London. During his exchange at UCSB, he was an independent researcher for the Department of Geography and executive secretary for the International Students Association. Joshua has a research background in the areas of socioeconomic inequality and geopolitics. He spends his free time reading and bar hopping.

Kira Lazzarini is a 2nd year Global Studies major and Anthropology minor at UCSB and plans to graduate in the spring of 2021. Kira is from Los Angeles, loves to travel, is interested in politics, and enjoys volunteering. She spent the last summer living and volunteering in Thailand and aspires to continue to travel in conjunction with her education and passion for international learning.