

MIRO VIRTUAL SYMPOSIUM

February, 2021

Understanding Student Populations Using Enrollment Data Visualization Tools

Symposium Registration Form Questions & Answers

Q1: What resources can we use to understand and interpret data from MIRO's data tools?

We have video tutorials for most of the web apps, a brief description of the filter (click the question mark next to each filter), and the glossary of terms that explain key terms and calculation methods. On top of that, our symposium is one of the best resources. In the future we will introduce different data tools that we have developed over the years and explain how to use and interpret the data by using the tools.

Q2: It is difficult to create a “one size fits all” report because each stakeholder wants something slightly different, how do you deal with this issue?

Yes, it is. Our approach is to create well designed reports that can address most needs, just like what you saw in our demonstration. We also tried to incorporate great flexibility into the design of our data tools for users to slice and dice the data. For example, we have a wide variety of filters. It is simply not realistic to have data specialists customize each report to meet everyone's needs, so the flexibility of data tools is very important.

Q3: How did you design enrollment data visualization tools or find templates?

The key is to understand different needs and design the reports accordingly. When we first developed the tools, we summarized years of data inquiries to find what data people were looking for. When designing the data visualization, our goal was to let users easily digest and compare the data and see the trends. We also included key data elements in it. It is also important to constantly seek feedback from users, so that we can continuously improve the tools. In addition, making sure data is accurate and reliable is equally, if not more important, than data visualization.



Q4: How do we find data for specific student groups, such as Filipino, Native Hawaiian and Pacific Islander?

To pull the data for Filipino students, you can find an option “Filipino” in the filter of “UHM Ethnicity,” and to pull the data for “Native Hawaiian and Pacific Islander” students, you can find it in the filter of UHM Race. In our presentation, we used “Native Hawaiian and Partial Hawaiian” as an example. It is an option in the filter of “UHM Ethnicity”.

Q5: How do you look at the ‘trumping’ rules in race data? Almost all presented data uses “trumped ethnicity” and does not necessarily represent the challenges our multi-ethnic populations face.

It is true that different trumping rules may result in very different statistics for racial and ethnic groups. Based on the current data reporting rules, the data that our office has access to are already being trumped, so unfortunately, there is not much we can do on our end. What we would recommend is getting familiar with the [university’s racial data reporting guidance](#) published by the UH System’s Institutional Research Office, so you know the limitations of data and are able to use it with caution.

Q6: Is data available on specific Micronesian populations (e.g. Chuukese, Pohnpeian, Palauan)? Although the overall numbers are small, such data is of interest for these specific populations and may be used to highlight the need for outreach to improve low enrollment.

UH does not collect the data of those ethnic groups, so this data is not available. It is common that some data may not be collected by the university. In this case, you may consider collecting the data from students directly if it’s appropriate.

Q7: Do you have data to understand student needs and student retention?

Yes, we do. We have open-ended survey data to help users understand students’ needs directly from students’ perspectives. We also have student persistence web apps to track their retention and graduation. We plan to share those web apps in future symposiums, so please [sign up for our newsletter](#) to get the latest information.



Q8: Do you have data for grant writing?

Providing data for grant proposals is not a high priority for MIRO, but our web apps can still be very useful to get the data for grant writing. For example, some faculty members write STEM-related grants, and they may find the STEM filter in our web apps very useful to pull out the data they need.

Q9: Is this tool suitable for other kinds of data such as research productivity data?

We do not have research productivity data in our system. We have been focusing on student data and have not had a chance to explore the research-related data. The research data are managed by the UH System's Office of Research Services.

Q10: How can we better communicate with data specialists for data needs?

Here are some ideas generated from our hands-on experience. It is always good to not only ask for data, but also explain the purpose of the data request, so data specialists can better understand your data needs. It always helps the data specialists to suggest the data that best address your purpose or bring useful data to your attention even if you do not know they exist.

When talking about your data request, the more details you can provide the better, such as the period of data you requested, undergraduate or graduate, degree seeking or not. If the request is to fulfill some reporting requirements, it is also good to send the reports to the data specialists, so they know exactly what you are looking for.

Q11: What are the advantages of our homegrown data tools? For example, why didn't you use Tableau, instead of developing your own system?

When we first started to develop MIRO's homegrown data tools, we did consider software like Tableau. At that time, we did not have the funding to purchase Tableau, but we had an opportunity to change one of the two IR positions to an IT position. Eight years later, we are very glad that we made that choice. Our homegrown data tools can address our data needs very well. Having our own IT specialist allows us to build the data tools exactly how we want and includes as many variables and features as we need. We can also easily adjust the look of the report. If you use Tableau or other software at work, we are curious to hear what you think after seeing our homegrown Decision Support System.



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We haven't used Tableau, but maybe the difference is similar to the difference between using graphic design software, like Canva, and having your own graphic designer. We have both at our office. It is convenient to use Canva to create visual work, but it is very different from having your own graphic designer who can just hear your ideas and work the magic to create something that can best address your needs.

Another advantage is that we have our own IT specialist who takes over the work of data importing and report generation, so that IR can focus on data compiling, data analysis, and data communication. They can both concentrate on the line of work that they are good at and most passionate about.

It is hard to have the funding to hire IT specialists or graphic designers, but maybe you could consider converting some of the IR positions to IT positions when opportunities arise. Or you could talk to your university's IT and communication's offices to see if it is possible to collaborate. Creating your homegrown reporting system is a long-term commitment because you will need at least 3 to 5 years to see some preliminary outcomes. However, there are long-term benefits to your office and university as well.

Questions from Enrollment Symposium & Answers

Q: Anonymous Attendee

Will you be sharing your presentation? I am interested in the statement that first-time data users must agree to follow.

A: Yang Zhang

We will upload the statement on the symposium page and send out a follow-up email soon, once all resources have been uploaded.

Q: Anonymous Attendee

Sorry, I missed the beginning part. What tools do you use to create these pages?

A: Bryson McFeeley

Our web apps were custom built and developed in house at MIRO, and are the result of years of development by current and previous IT specialists. The decision to have a dedicated IT position in our office has allowed us to build a highly customized platform and implement features specifically tailored for UH, which commercial solutions may not have. Because of that, we've been able to design our web apps to meet the specific needs of our Mānoa data community.



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At a high level, the web apps provide a front-end user interface to make requests to our office's database. Using the filters that a user selects, the app constructs a query to send to our database, which calculates the result and sends it back to the web app for display. The current web apps were developed in PHP and are backed by our office database, as well as other web libraries that enable features such as charts and data exports.

Q: Anonymous Attendee

Is there a filter that can be added for high school type of incoming students (e.g. public, private, homeschool)?

A: Yang Zhang

We have a filter of "High School Type" to separate private and public high schools, currently we do not have homeschool information on our web app.

Q: Anonymous Attendee

Our office plans to share information (data and research projects) to the campus community. Any suggestions? Has your office shared information with students? and how, if any? Thanks!

A: Yang Zhang

These data web apps are currently only open to all Mānoa Faculty and Staff, but our symposiums are open to everyone, including students. To share information with the public, including the students, we work closely with the UH Office of Communications for major data trends, ranking information, etc. Also, our MIRO website releases a great amount of data to the public to which students have access.

Q: Anonymous Attendee

Hi Yang, thanks for the great demo of these web apps. May I know # FTEs / # hours required (in IT and IR) to maintain this platform and keep data up to date every year? Thanks!

A: Yang Zhang

We have 3 full-time staff, me as the Director, 1 Research Analyst (IR), and 1 IT Specialist. This system was created by this 3-staff team from day one. We also have a Graduate Assistant.



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Q: Anonymous Attendee

Does the group of living on campus include students who live at EWC?

A: Yang Zhang

Good question. The housing data does not include those who live at the East West Center (EWC).

Q: Anonymous Attendee

Really powerful tool. Thanks for sharing. There are so many filters listed. When users select multiple filters, are there any risks to identify certain students?

A: Yang Zhang

Yes, it is possible, but our reports only show headcounts. Such small N data is also available on IPEDS or other external reports. For survey data, we do hide survey results if the number of the selected group is less than 5.

Q: Anonymous Attendee

Will this recorded webinar be available to watch on the MIRO website?

A: Yang Zhang

We do not plan to do that for now, but will email the participants if we decide to do so.

Questions Answered Live in Enrollment Symposium

Q: Anonymous Attendee

Is there any incentive for all the IROs on each campus and at system level to have a parallel platform so things are more user friendly and consistent across campuses?

Q: Anonymous Attendee

Hi Yang. This is a great presentation. Is the data used in the MIRO apps from the common application form only or are there other data/information that is used to generate the reports.



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Q: Susan Ma

How should we request for additional filters on web apps?

Q: Leighton Vila

**Do the presented tools use Trumped or Untrumped ethnicity definitions?
Trumped Ethnicity under-represents Filipinos and Pacific Islanders.**

