

2023 - 2024 Assessment of Institutional Learning Outcomes

Excerpt from the 2023-2024 Graduate Exit Survey

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Executive Summary

Each year, the Research Office administers its Graduate Exit Survey, which contains a series of questions that ask graduates to self-assess how well they demonstrate the college's Institutional Learning Outcomes (ILOs). This report outlines the results of the 2023-2024 ILO assessment, as well as a five-year longitudinal analysis of the Institutional Learning Outcomes.

2023-2024 Institutional Learning Outcomes Findings

For each of the six ILOs, the average rating for each skill/ability was greater than 4.0. An average rating of 4.0 or higher indicates that graduates feel they are able to demonstrate each ability/skill Well or Very well. ILO skills 4.4 (the ability to demonstrate empathy, civility, and equitable conflict resolution) and 4.5 (the ability to be mindful of divergent perspectives accompanied by awareness of personal prejudices and biases when considering issues) received the highest average rating, 4.48. ILO skill 1.3 (the ability to apply mathematical skills, including algebra, to problem solve for both occupational and personal purposes) received the lowest average rating, though still at 4.07.

Statistical analyses tested for differences across respondent race, gender, age group, income level, first generation status, veteran status, Career & Academic Community (CAC), and primary course modality. A difference was found for student age group and first-generation status such that graduates age 25 and older, as well as first-generation students, self-rated higher on several ILO skills than their peers. Similarly, students with incomes below the poverty level self-rated higher than their peers on items under ILO 4, *Cultural understanding*, *social justice*, *and equity*.

All average ILO ratings, as well as disaggregation for several student demographic groups and Career and Academic Community (CAC) may be viewed in the <u>Graduate Exit Survey dashboard</u>. Appendix A contains instructions for utilizing the dashboard to disaggregate the ILO ratings. If not on a campus network, users will be prompted to log in with their WID to access the dashboard.

2019-2024 Longitudinal Institutional Learning Outcomes Findings

A five-year longitudinal analysis of ILO ratings aggregated ILO ratings across surveys, from 2019-2020 through 2023-2024. No significant differences in responses were found from year to year. Several statistically significant differences were found based on student demographics and Career and Academic Community (CAC); these differences largely reflect the same findings from previous longitudinal analyses. A few such key differences are summarized below:

- Male students self-rated lower on several items under ILO 2 (Effective Communication in Professional and Personal Situations), ILO 4 (Cultural Understanding, Social Justice, and Equity), ILO 5 (Competence in Social Responsibility and Sustainability), and 6 (Creativity).
- Asian students self-rated lower than their peers on ILO 1.5 (Examine, reflect upon, and evaluate one's own thinking), 2.2 (Write and verbally communicate in a clear, well-organized manner appropriate to the purpose, audience, and setting), and 3.2 (Use technology effectively for career, information, academic, and personal purposes).
- African American or Black students and students of an Unknown race self-rated lower than their pers on ILO 1.1 (*Solve complex* problems) and 1.3 (*Apply mathematical skills, including algebra, to problem solve for both occupational and personal purposes*).

- Graduates with lower incomes self-rated higher than their peers on items under ILO 3, Adaptability, ILO 5, Competence in Social Responsibility and Sustainability, and ILO 6, Creativity.
- First-generation students self-rated higher than their non-first-generation peers on all items under ILO 1 (*Relevant Knowledge, Quantitative Reasoning, and Critical Habits of Mind*) and several skill items under ILO 3, 5, and 6.
- Business and Computer Science (BCS) students and Science, Math, and Engineering (SME) students self-rated lower than their peers on ILO 4.1, and BCS students self-rated lower than their peers on ILO 4.2, both part of *Cultural Understanding, Social Justice, and Equity*.
- Graduates age 25 and older self-rated higher than their peers on all items under every ILO. This finding is likely influenced by responses to this year's survey and will be monitored for potential Type I error moving forward.

Background and Methodology

The 2023-2024 Graduate Exit Survey was electronically administered in May 2024 to 1,634 students who either graduated in summer or fall 2023 or petitioned to graduate in spring 2024, with a 12.61% response rate (n=206). The survey instrument contains a series of questions for graduates to self-assess how well they demonstrate the college's Institutional Learning Outcomes (ILOs). The respondents to the 2023-2024 Graduate Exit Survey were representative of the graduating class in terms of gender, race, first generation status, income level, and foster youth status. Despite targeted sampling, younger graduates were underrepresented among respondents. Differences in the demographic representation of students who received the survey and students who responded is outlined in Table 1 below.

Table 1. 2023-2024 Graduate Exit Survey Demographic Representation

Group	% Respondent Population	% Target Population	Difference
Gender			
Female	61.17%	59.12%	2.05%
Male	37.38%	39.29%	-1.91%
Non-binary	1.46%	0.67%	0.79%
Unknown / Not reported	0.00%	0.92%	-0.92%
Race			
African American / Black	10.19%	8.08%	2.11%
Asian	30.58%	28.03%	2.55%
Filipino	8.25%	6.73%	1.52%
Hispanic / Latinx	27.18%	27.54%	-0.36%
Multi-Race	5.83%	7.10%	-1.27%
Native American	0.00%	0.43%	-0.43%
Other Non-White	0.00%	0.12%	-0.12%
Pacific Islander	0.97%	1.41%	-0.44%
Unknown	0.49%	1.41%	-0.92%
White	16.50%	19.16%	-2.66%
Age Group			
24 or Younger	51.94%	59.18%	-7.24%
25 or Older	48.06%	40.82%	7.24%
First Generation Status			
First Generation	26.70%	28.76%	-2.06%



Group	% Respondent Population	% Target Population	Difference
Not First Generation	73.30%	71.11%	2.19%
Unknown	0.00%	0.12%	-0.12%
Income Level			
Below Poverty	21.36%	23.99%	-2.63%
Low	26.21%	25.09%	1.12%
Middle and Above	38.35%	36.41%	1.94%
Unable to Determine	14.08%	14.50%	-0.42%
Veteran Status			
Veteran	2.43%	2.08%	0.35%
Not Veteran	97.57%	97.92%	-0.35%
Foster Youth Status			
Foster Youth	0.49%	1.59%	-1.10%
Not Foster Youth	99.51%	98.41%	1.10%

2023 – 2024 Institutional Learning Outcomes Analysis

Survey respondents are asked to self-assess how well they demonstrate the college's Institutional Learning Outcomes. Table 2 below displays the average rating per skill/ability identified within each of the six ILOs. For each of the six ILOs, the average rating for each skill/ability was greater than 4.0. An average rating of 4.0 or higher indicates that graduates feel they are able to demonstrate each ability/skill Well or Very well. ILO skill 4.4 (the ability to demonstrate empathy, civility, and equitable conflict resolution) received the highest average rating, 4.5. ILO skill 1.3 (the ability to apply mathematical skills, including algebra, to problem solve for both occupational and personal purposes) received the lowest average rating, though still at 4.1. See table 2 below for the average rating of each ILO. Further disaggregation of the ILO ratings can be found in the Graduate Exit Survey dashboard. Appendix A contains instructions for utilizing the dashboard to disaggregate the ILO ratings. If not on a campus network, users will be prompted to log in with their WID to access the dashboard.

Table 2. 2023-2024 Institutional Learning Outcomes, Average Ratings

Institutional Learning Outcomes (ILOs)	Mean	Number of Respondents		
ILO Survey Items' Likert Scale: 1= Not at all, 2: Not very well, 3=Somewhat, 4=Well, 5=Very well				
ILO 1: Relevant Knowledge, Quantitative Reasoning, and Critical Habits of Mind				
1.1: Solve complex problems	4.3	149		
1.2: Conduct basic research: collect, evaluate, and analyze relevant facts and information	4.4	148		
1.3: Apply mathematical skills, including algebra, to problem solve for both occupational and personal purposes	4.1	147		
1.4: Employ qualitative evaluation measures	4.2	145		
1.5: Examine, reflect upon, and evaluate one's own thinking	4.4	147		
1.6: Adapt to new circumstances, challenges, and pursuits	4.4	146		
ILO 2: Effective Communication in Professional and Personal Situations				
2.1: Utilize principles of critical thinking and logic to inform, persuade, or otherwise participate in discourse	4.4	149		



Institutional Learning Outcomes (ILOs)	Mean	Number of Respondents
ILO Survey Items' Likert Scale: 1= Not at all, 2: Not very well, 3=Somewhat, 4=Well,	5=Very v	vell
2.2: Write and verbally communicate in a clear, well-organized manner appropriate to the purpose, audience, and setting	4.4	149
2.3: Demonstrate analytical and discerning listening and reading practices	4.4	149
2.4: Employ graphic, creative, aesthetic, or non-verbal forms of expression	4.3	148
ILO 3: Adaptability		
3.1: Incorporate what is learned to make positive personal and professional changes	4.4	151
3.2: Use technology effectively for career, information, academic, and personal purposes	4.4	150
3.3: Demonstrate ability to update skills to accommodate rapid change in society's technological landscape	4.3	149
ILO 4: Cultural Understanding, Social Justice, and Equity		
4.1: Appreciate artistic expression, aesthetics, languages, and traditions across cultures	4.4	148
4.2: Participate in society with respect, empathy, and appreciation for human diversity	4.5	147
4.3: Be mindful of divergent perspectives accompanied by awareness of personal prejudices and biases when considering issues		147
4.4: Demonstrate empathy, civility, and equitable conflict resolution	4.5	144
ILO 5: Competence in Social Responsibility and Sustainability		
5.1: Recognize the individual's responsibility in local, national, and global matters	4.3	148
5.2: Address, through ethical reasoning, issues of social, political, and environmental well-being in the workplace, the greater community, the government, and the world	4.3	146
ILO 6: Creativity		
6.1: Employ inspiration and imagination in synthesizing existing ideas and material to generate original work such as novel solutions to problems, alternatives to traditional practices, and other innovations	4.3	150
6.2: Extend or challenge current understanding or expression through experimentation and divergent thinking	4.3	149
6.3: Exhibit persistence until efforts lead to a successful outcome	4.3	145

Differences in Annual ILO Ratings Across Demographic Groups

Statistical analyses tested for differences across respondent race, gender, age group, income level, first generation status, veteran status, Career & Academic Community (CAC), and primary course modality. Statistically significant differences were found for student age group, first-generation status, and income level, as outlined below.

Age

Graduates age 25 and older were more likely to rate all skill items under all ILOs higher than their peers. While significant differences existed for student age group in past evaluations, they have never been pervasive across all ILO skills. Given the anomaly in this year's data, we must consider the potential for Type I error (erroneous positive finding), which is close to 30% across six years. Researchers will continue to monitor this finding in future years.



- ILO 1 (F(1, 140) = 21.09, p < 0.001)
- ILO 2 (F(1, 146) = 13.69, p < 0.001)
- ILO 3 (F(1, 147) = 10.52, p < 0.01)

- ILO 4 (F(1, 142) = 6.78, p < 0.05)
- ILO 5 (F(1, 143) = 14.56, p < 0.001)
- ILO 6 (F(1, 143) = 10.99, p < 0.01)

First Generation Status

First-generation students self-rated higher than non-first-generation students for all skill items under ILOs 1, 2, 3, and 5. Again, here, there is a possibility for Type I error.

- ILO 1 (F(1, 140) = 7.39, p < 0.01)
- ILO 2 (F(1, 146) = 9.06, p < 0.01)

- ILO 3 (F(1, 147) = 8.00, p < 0.01)
- ILO 5 (F(1, 143) = 7.93, p < 0.01)

Income Level

Students with incomes below the poverty level self-rated higher than their peers on items under ILO 4, *Cultural understanding, social justice, and equity*.

- ILO 4.1 (F(1, 144) = 4.06, p < 0.01)
- ILO 4.2 (F(1, 143) = 3.31, p < 0.05)

2019 – 2024 Longitudinal Institutional Learning Outcomes Analysis

A five-year longitudinal analysis of ILO ratings aggregated ILO ratings across surveys, from 2019-2020 through 2023-2024. No significant differences in responses were found from year to year. Table 3 below shows the average ratings for each ILO for the past five years. No significant changes in graduates' self-reported ratings were found from year to year. Further disaggregation of the ILO ratings can be found in the <u>Graduate Exit Survey dashboard</u>. Appendix A contains instructions for utilizing the dashboard to disaggregate the ILO ratings. If not on a campus network, users will be prompted to log in with their WID to access the dashboard.

Table 3. Longitudinal Institutional Learning Outcomes, Average Ratings

Institutional Learning Outcomes (ILOs)	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
ILO Survey Items' Likert Scale: 1= Not at all, 2: Not very well, 3=Somewhat, 4=Well, 5=Very well					
ILO 1: Relevant Knowledge, Quantitative Reasoning, and Critical Hab	oits of Mind				
1.1: Solve complex problems	4.3 (352)	4.2 (269)	4.3 (163)	4.3 (257)	4.3 (149)
1.2: Conduct basic research: collect, evaluate, and analyze relevant facts and information	4.3 (347)	4.3 (269)	4.5 (163)	4.4 (254)	4.4 (148)
1.3: Apply mathematical skills, including algebra, to problem solve for both occupational and personal purposes	4.0 (352)	4.0 (269)	4.1 (163)	4.1 (254)	4.1 (147)
1.4: Employ qualitative evaluation measures	4.1 (348)	4.1 (267)	4.2 (161)	4.2 (255)	4.2 (145)
1.5: Examine, reflect upon, and evaluate one's own thinking	4.5 (350)	4.5 (268)	4.6 (163)	4.4 (253)	4.4 (147)
1.6: Adapt to new circumstances, challenges, and pursuits	4.4 (350)	4.4 (265)	4.5 (162)	4.5 (254)	4.4 (146)
ILO 2: Effective Communication in Professional and Personal Situations					
2.1: Utilize principles of critical thinking and logic to inform, persuade, or otherwise participate in discourse	4.3 (353)	4.3 (267)	4.5 (163)	4.4 (256)	4.4 (149)
2.2: Write and verbally communicate in a clear, well-organized manner appropriate to the purpose, audience, and setting	4.4 (351)	4.4 (267)	4.5 (163)	4.4 (256)	4.4 (149)
2.3: Demonstrate analytical and discerning listening and reading practices	4.3 (353)	4.4 (266)	4.4 (163)	4.4 (256)	4.4 (149)



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Institutional Learning Outcomes (ILOs)	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024
ILO Survey Items' Likert Scale: 1= Not at all, 2: Not very well, 3=Some	what, 4=Well, 5	5=Very well			
2.4: Employ graphic, creative, aesthetic, or non-verbal forms of expression	4.2 (352)	4.2 (263)	4.2 (162)	4.3 (256)	4.3 (148)
ILO 3: Adaptability					
3.1: Incorporate what is learned to make positive personal and professional changes	4.4 (352)	4.3 (265)	4.4 (163)	4.5 (253)	4.4 (151)
3.2: Use technology effectively for career, information, academic, and personal purposes	4.4 (350)	4.4 (266)	4.4 (163)	4.5 (251)	4.4 (150)
3.3: Demonstrate ability to update skills to accommodate rapid change in society's technological landscape	4.3 (352)	4.2 (265)	4.3 (163)	4.4 (248)	4.3 (149)
ILO 4: Cultural Understanding, Social Justice, and Equity					
4.1: Appreciate artistic expression, aesthetics, languages, and traditions across cultures	4.3 (352)	4.3 (266)	4.3 (163)	4.4 (255)	4.4 (148)
4.2: Participate in society with respect, empathy, and appreciation for human diversity	4.5 (353)	4.5 (266)	4.5 (163)	4.5 (253)	4.5 (147)
4.3: Be mindful of divergent perspectives accompanied by awareness of personal prejudices and biases when considering issues	4.5 (353)	4.5 (266)	4.5 (162)	4.5 (252)	4.5 (147)
4.4: Demonstrate empathy, civility, and equitable conflict resolution	4.5 (352)	4.5 (266)	4.4 (162)	4.5 (248)	4.5 (144)
ILO 5: Competence in Social Responsibility and Sustainability					
5.1: Recognize the individual's responsibility in local, national, and global matters	4.3 (353)	4.3 (266)	4.3 (162)	4.2 (251)	4.3 (148)
5.2: Address, through ethical reasoning, issues of social, political, and environmental well-being in the workplace, the greater community, the government, and the world	4.3 (353)	4.3 (264)	4.4 (162)	4.3 (251)	4.3 (146)
ILO 6: Creativity					
6.1: Employ inspiration and imagination in synthesizing existing ideas and material to generate original work such as novel solutions to problems, alternatives to traditional practices, and other innovations	4.2 (352)	4.2 (266)	4.3 (163)	4.3 (256)	4.3 (150)
6.2: Extend or challenge current understanding or expression through experimentation and divergent thinking	4.2 (352)	4.3 (265)	4.3 (162)	4.3 (251)	4.3 (149)
6.3: Exhibit persistence until efforts lead to a successful outcome	4.3 (350)	4.4 (264)	4.4 (160)	4.4 (248)	4.3 (145)

Differences in Aggregated Longitudinal ILO Ratings Across Demographic Groups

Several statistically significant differences were found in the longitudinal analysis based on student demographics and Career and Academic Community (CAC); these differences largely reflect the same findings from previous longitudinal analyses. These trends include statistically significant differences by student gender, race/ethnicity, age group, income level, first generation status, and student CAC (as determined by respondents' self-reported major).

Gender

Similar to prior trends, there is a significant difference by gender for items under ILO 2, 4, 5, and 6, such that male students scored the items lower than their female peers.

• ILO 2.2 (F(3, 1184) = 4.67,
$$p < 0.01$$
)

• ILO 4.4 (F(3, 1169) = 3.32,
$$p < 0.05$$
)



• ILO 5.1 (F(3, 1178) = 4.78, p < 0.01)

• ILO 6.3 (F(3, 1165) = 3.38, p < 0.05)

Race/Ethnicity

Across the past five years, there is a significant difference by student race/ethnicity for items under ILO 1, 2, and 3, as outlined below. Findings that are consistent with prior evaluations are outlined in bold.

- ILO 1.1 (F(9, 1182) = 2.71, p < 0.01)
 - o African American students self-rated higher than their peers
 - Students of an Unknown race self-rated lower than their peers
- ILO 1.3 (F(9, 1177) = 2.72, p < 0.001)
 - Asian students self-rated higher than their peers
 - African American students self-rated lower than their peers
 - Students of an Unknown race self-rated lower than their peers
- ILO 1.5 (F(9, 1173) = 2.49, p < 0.01)
 - Asian students self-rated lower than their peers
- ILO 2.2 (F(9, 1178) = 2.00, p < 0.05)
 - Asian students self-rated lower than their peers
- ILO 3.2 (F(9, 1172) = 1.92, p < 0.05)
 - Asian students self-rated lower than their peers

Age

Graduates age 25 and older self-rated higher than their peers on all items under every ILO. This finding is likely influenced by responses to this year's survey and will be monitored for potential Type I error moving forward.

- ILO 1 (F(1, 1156) = 17.46, p < 0.001)
- ILO 2 (F(1, 1178) = 10.24, p < 0.01)
- ILO 3 (F(1, 1173) = 12.37, p < 0.001)
- ILO 4 (F(1, 1169) = 4.61, p < 0.05)
- ILO 5 (F(1, 1174) = 8.35, p < 0.01)
- ILO 6 (F(1, 1166) = 11.49, p < 0.001)

Income Level

As with prior evaluations, across five years, graduates with an income below the poverty level and lowincome students self-rated higher on items under ILO 3, Adaptability, ILO 5, Competence in Social Responsibility and Sustainability, and ILO 6, Creativity.

- 3.1 (F(3, 1182) = 3.08, *p* < 0.05)
- 3.2 (F(3, 1178) = 2.94, p < 0.05)
- 3.3 (F(3, 1175) = 3.18, *p* < 0.05)

- 5.1 (F(3, 1178) = 4.13, p < 0.01)
- 6.1 (F(3, 1185) = 3.31, p < 0.05)
- 6.2 (F(3, 1177) = 2.69, p < 0.05)
- 6.3 (F(3, 1165) = 3.03, p < 0.05)

First Generation Status

Similar to prior evaluations, first-generation students self-rated higher than their non-first-generation peers on all items under ILO 1 and several skill items under ILO 3, 5, and 6.

- ILO 1 (F(1, 1156) = 19.48, p < 0.001)
- 2.1 (F(1, 1188) = 5.31, *p* < 0.05)
- 2.4 (F(1, 1181) = 7.92, p < 0.01)

- 3.1 (F(1, 1184) = 16.15, p < 0.001)
- 3.3 (F(1, 1177) = 13.16, *p* < 0.001)
- 5.1 (F(1, 1180) = 13.60, *p* < 0.001)



- 5.2 (F(1, 1176) = 6.06, p < 0.05)
- 6.1 (F(1, 1187) = 12.90, p < 0.001)

- 6.2 (F(1, 1179) = 11.19, p < 0.005)
- 6.3 (F(1, 1167) = 6.11, p < 0.05)

Career & Academic Community (CAC)

There were statistically significant differences in the ratings of graduates by CAC, such that Business and Computer Science (BCS) students and Science, Math, and Engineering (SME) students self-rated lower than their peers on ILO 4.1, and BCS students self-rated lower than their peers on ILO 4.2, both under Cultural Understanding, Social Justice, and Equity. For a full breakdown of ILO ratings by CAC, see the Graduate Exit Survey dashboard. Appendix A contains instructions for utilizing the dashboard to disaggregate the ILO ratings. If not on a campus network, users will be prompted to log in with their WID to access the dashboard.

- ILO 4.1 (F(8, 824) = 2.18, p < 0.05)
- ILO 4.2 (F(8, 821) = 2.24, p < 0.05)

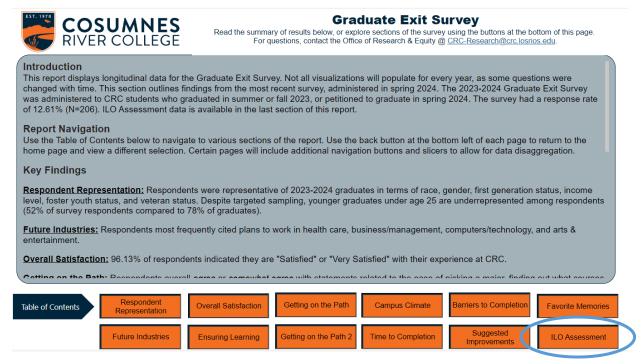
Considerations for future Institutional Learning Outcomes Assessments

This assessment relies on graduates' self-perceived ratings of their ability to carry out each of the institutional learning outcomes based on their education at Cosumnes River College (CRC). As CRC continues to expand its capacity to assess course student learning outcomes, the college should explore rolling these outcomes up into the ILOs so that we can better quantify ILO attainment using course- and program-level assessments. Currently, course student learning outcomes are linked to program student learning outcomes in the Outcomes Assessment Reporting and Program Review process. Using tools such as Canvas Gradebook, we have new capacity to connect different levels of student learning outcomes and potentially more quantitatively evaluate the ILOs. Reassessing the quantification of the Institutional Learning Outcomes may also help address the potential Type I errors discussed in this report.

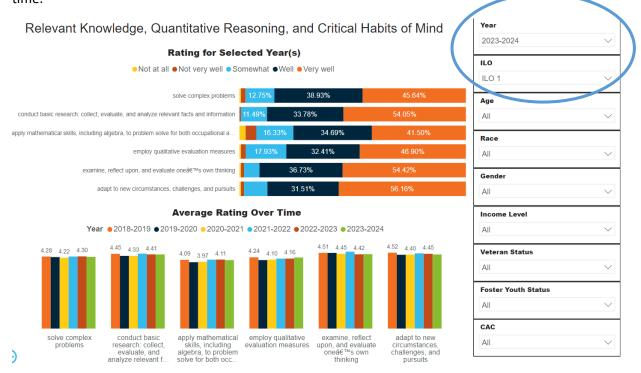


Appendix A: Disaggregating ILO Findings for Student Subpopulations

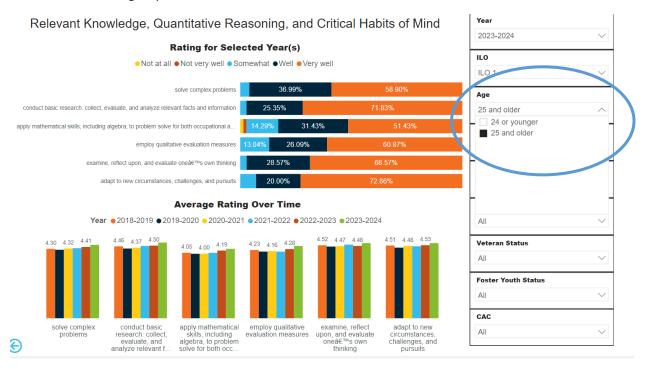
To find disaggregation of the ILO findings by student demographics or major, navigate to the Graduate Exit Survey dashboard. On the home page, select the orange button for "ILO Assessment".



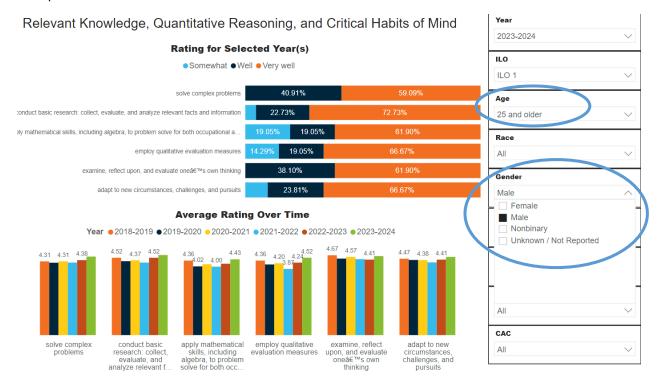
The ILO page will default to the most recent year of data and to ILO 1. The top chart on the page shows the ILO ratings for the selected year, and the bottom chart shows the average rating for that ILO over time.



To view the responses of a specific student subgroup (for example, students age 25 or older), select that subgroup from the options on the right-hand side of the page. The data will update to show responses for the selected subgroup.



You may select multiple options at once; for example, male students who are also 25 or older. Keep in mind that making more than one selection tends to produce very small sample sizes from which little extrapolation can be made.





Be sure to double check your selections and hit the "erase" button on any slicer to reset the selections within that slicer.



You can disaggregate the data in a similar fashion for any of the ILOs by changing the ILO selection on the right side of the page. Only one ILO may be selected at any time.

Year	♦
2023-2024	~
ILO	
ILO 1	^
■ ILO 1	
O ILO 2	
○ ILO 3	
○ ILO 4	
O ILO 5	
O ILO 6	
-	
Male	~