Closing the Loop: Assessing the Student Outcomes in the Bachelor's in Information Systems Program

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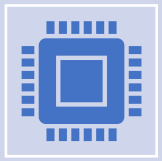
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Assessment Faire

Outline

- Introduction
- Information Systems overview
- Databases overview
- Database Assessment
- Knowledge Areas for Assessment
- ICCP Exam and Assessment

Introduction



Goal: to redesign the ‘closing the loop’ process for the Bachelor’s in Information Systems program.



‘Closing the Loop’ : analyzing results from assessments, using the results to make changes to improve student learning, and re-assessing outcomes

What is Information Systems?

Information Systems as a field of academic study began in the 1960s.

As organizations extended the use of information processing and communication technology to operational processes, project management, decision support, and enterprise and industry strategy, the academic field also grew in scope and depth.

DIFFERING NAMES FOR INFORMATION SYSTEMS



MANAGEMENT INFORMATION SYSTEMS



INFORMATION SYSTEMS



COMPUTER INFORMATION SYSTEMS

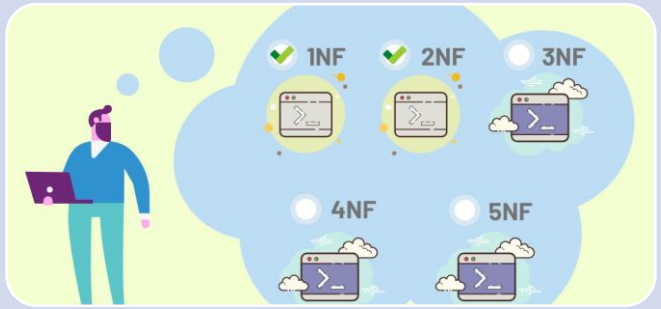
B.S. INFORMATION SYSTEMS

The Information Systems Program mission is to provide students with a theoretical, technological and business base to effectively compete in the business world.



Database Careers in Information Systems







Data Warehouse Analyst

Database Developer

Database Administrator

Knowledge Areas

Knowledge Areas	Learning Objectives
Data Warehousing	2.3, 4.2
Data Architecture and Data Integration	2.3, 4.2
Database Management Systems	2.3, 4.2
Database Administration	4.2
Normalization	2.3

- 2.3 Design, implement, and evaluate a computer-based system, process, component, or program to meet desired needs
- 4.2 An understanding of processes that support the delivery and management of information systems within business application environments

ICCP Exam

The ICCP is based on the Association for Computing Machinery Model Curricula for Computer Science, Information Systems, and Information Technology

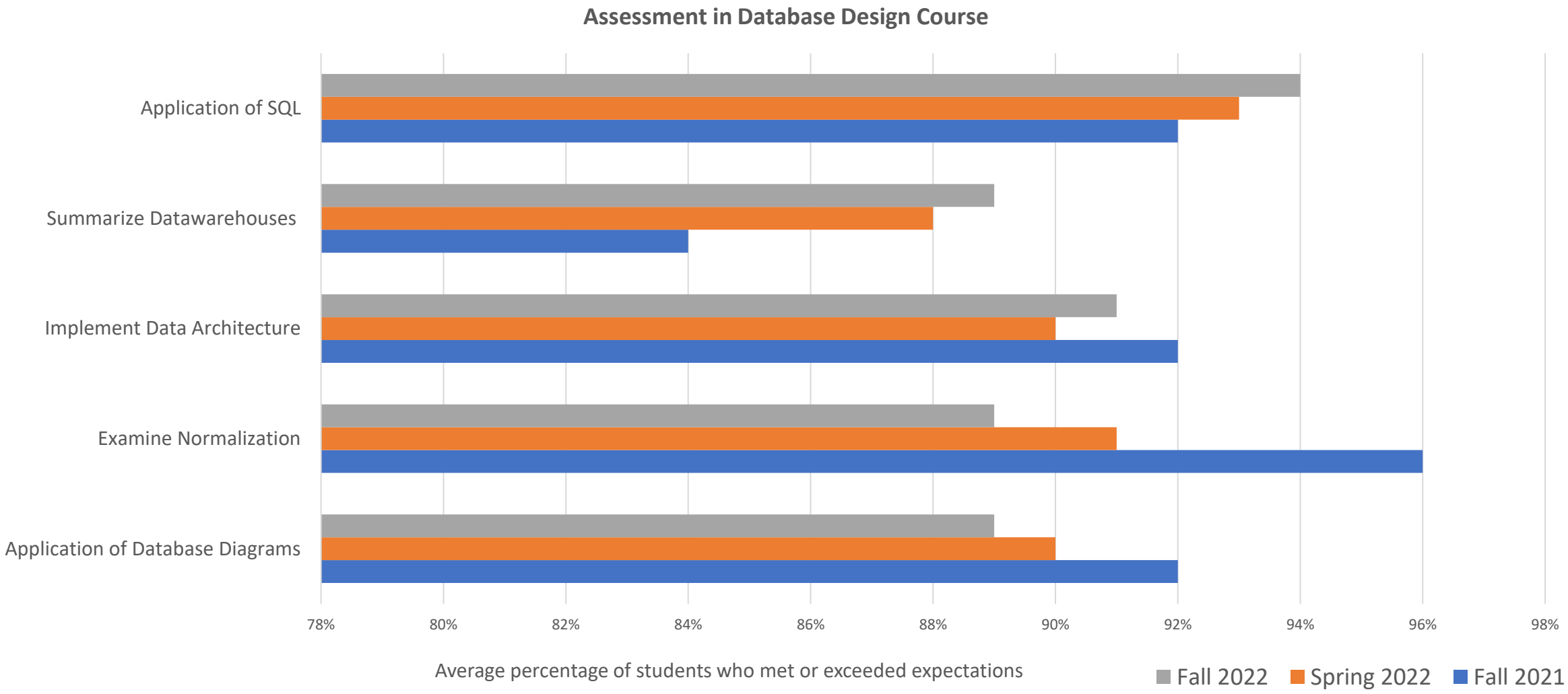
- The national examination is for continuous quality assessment based on learning outcomes assessment.
- Scenario-based test questions focus on skills required by companies
- Professional certification
- A national score average for each learning outcome is available for each college to compare their students' performances

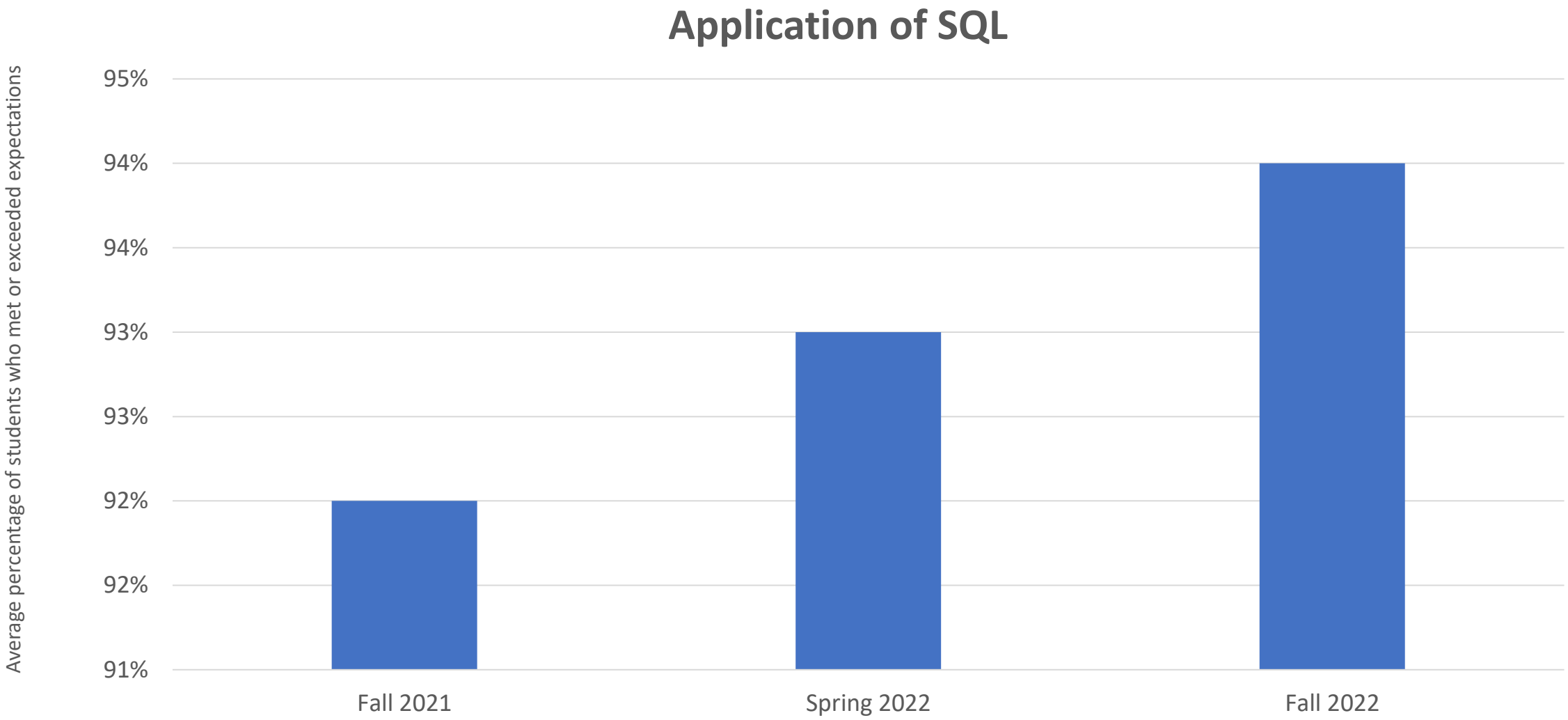
ICCP Exam

Benefits:

- The results are an essential part of the AACSB report
- By providing a comparison of our students with the national norm, we can gauge the performance of our students in a realistic real-world environment
- The performance of students is categorized into core areas of Information Systems, thereby providing a cue to the areas where improvement is needed

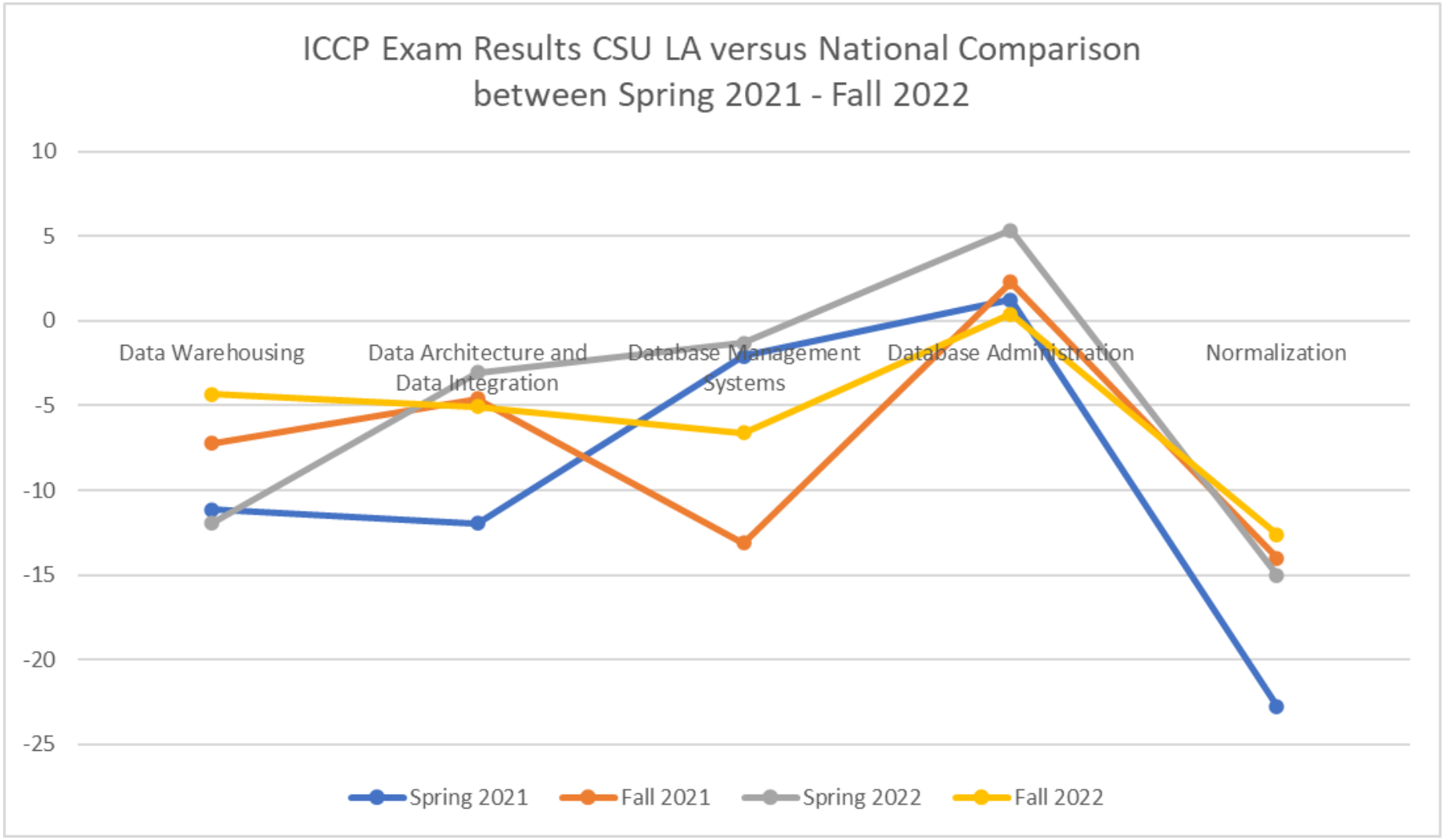
Assessment in the Database Design Course



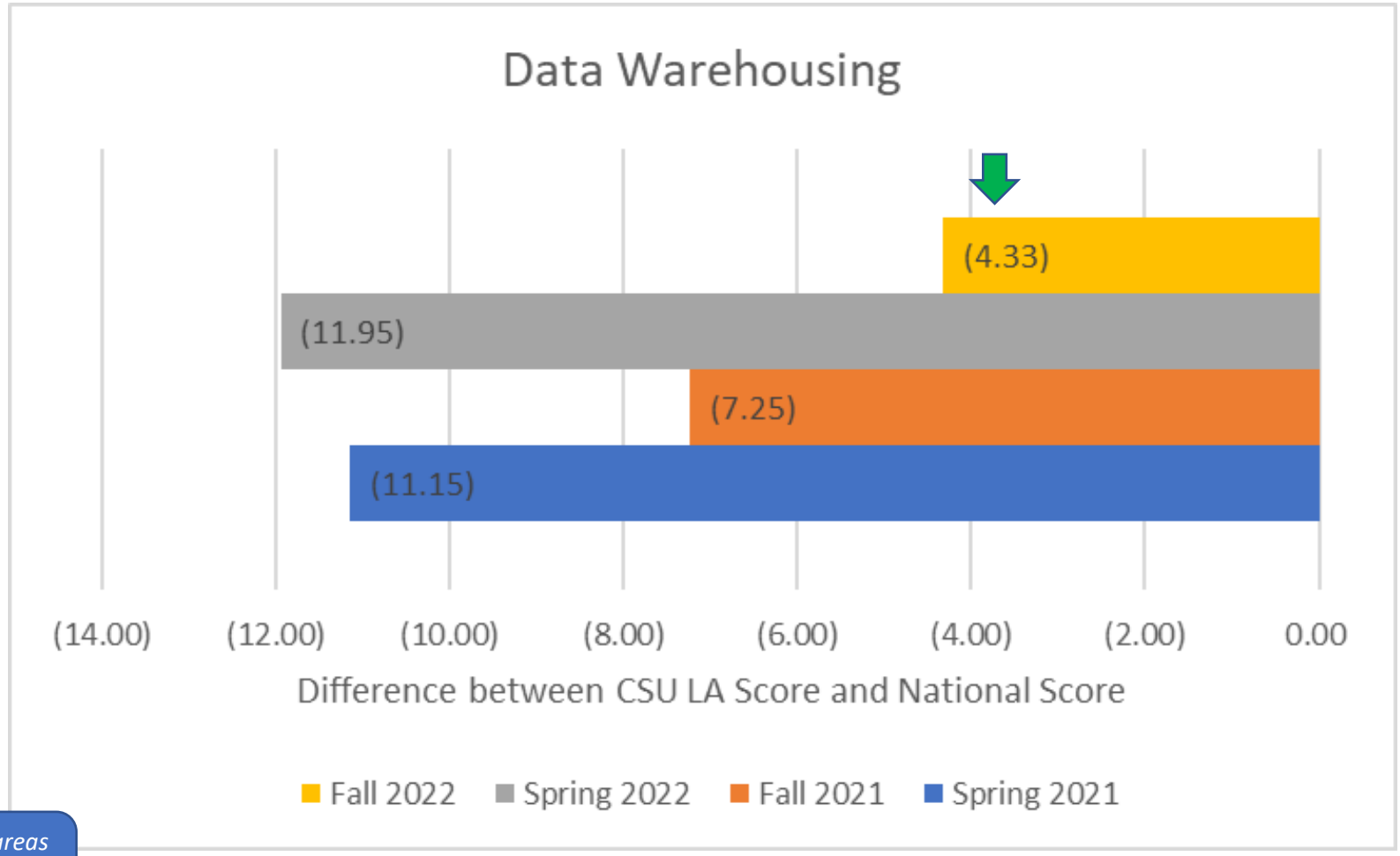

Application of SQL
Average percentage of students who met or exceeded expectations
95%
94%
94%
93%
93%
92%
92%
91%
Fall 2021
Spring 2022
Fall 2022

ICCP Exam Results CSU LA versus National Comparison between Spring 2021 - Fall 2022

Knowledge Area: CSU LA versus National Comparison



Knowledge Area: Data Warehousing



The results of the ICCP exam indicate that in comparison to Spring 2021, students' Data Warehousing scores increased by 6.82% points in Fall 2022

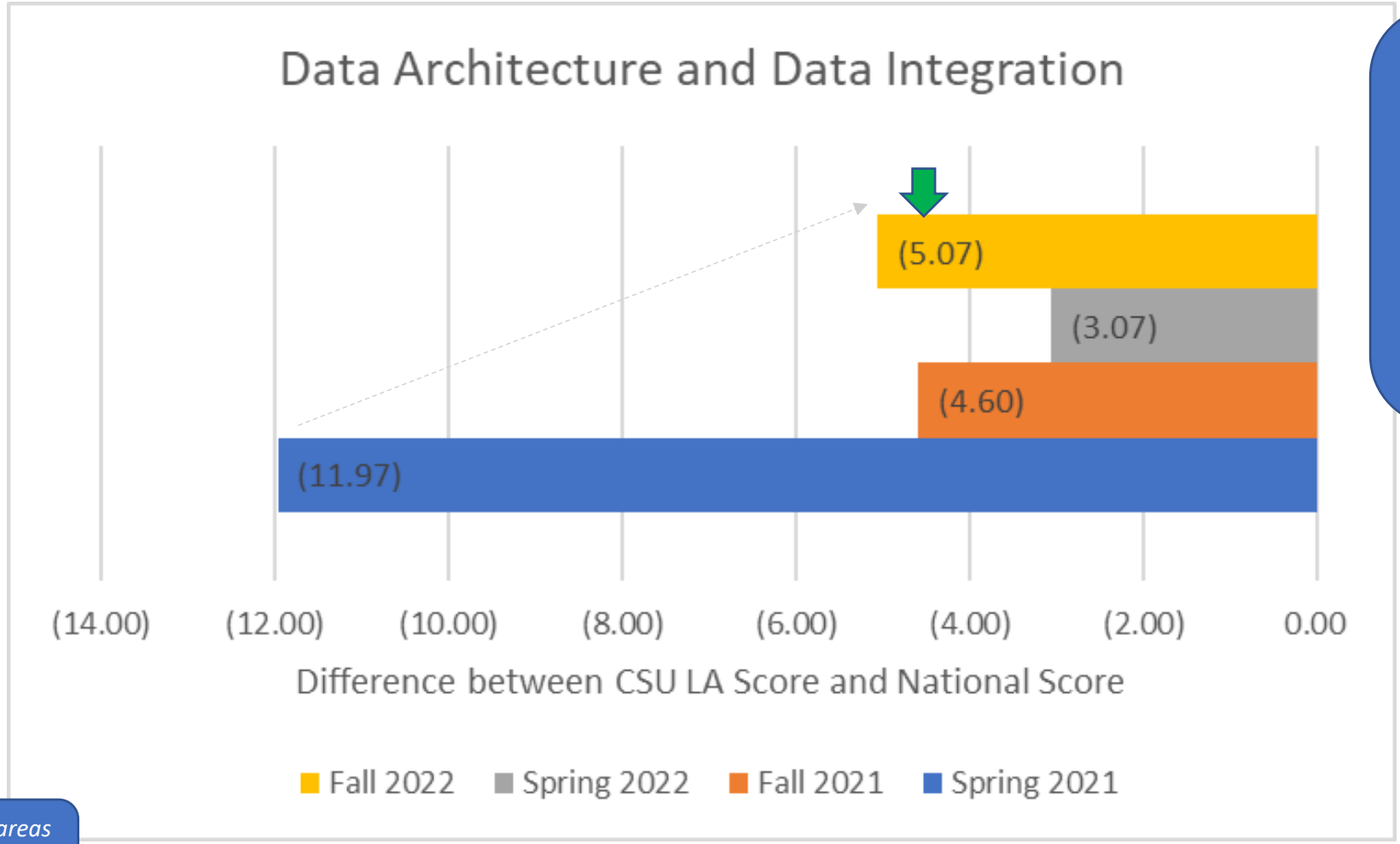
There is an interesting trend in both spring semesters where students' scores are lower than expected

Feeling pressure after fall semester ?

Ready to graduate?

***A positive score represents areas where CSU LA students are doing better than the national average*

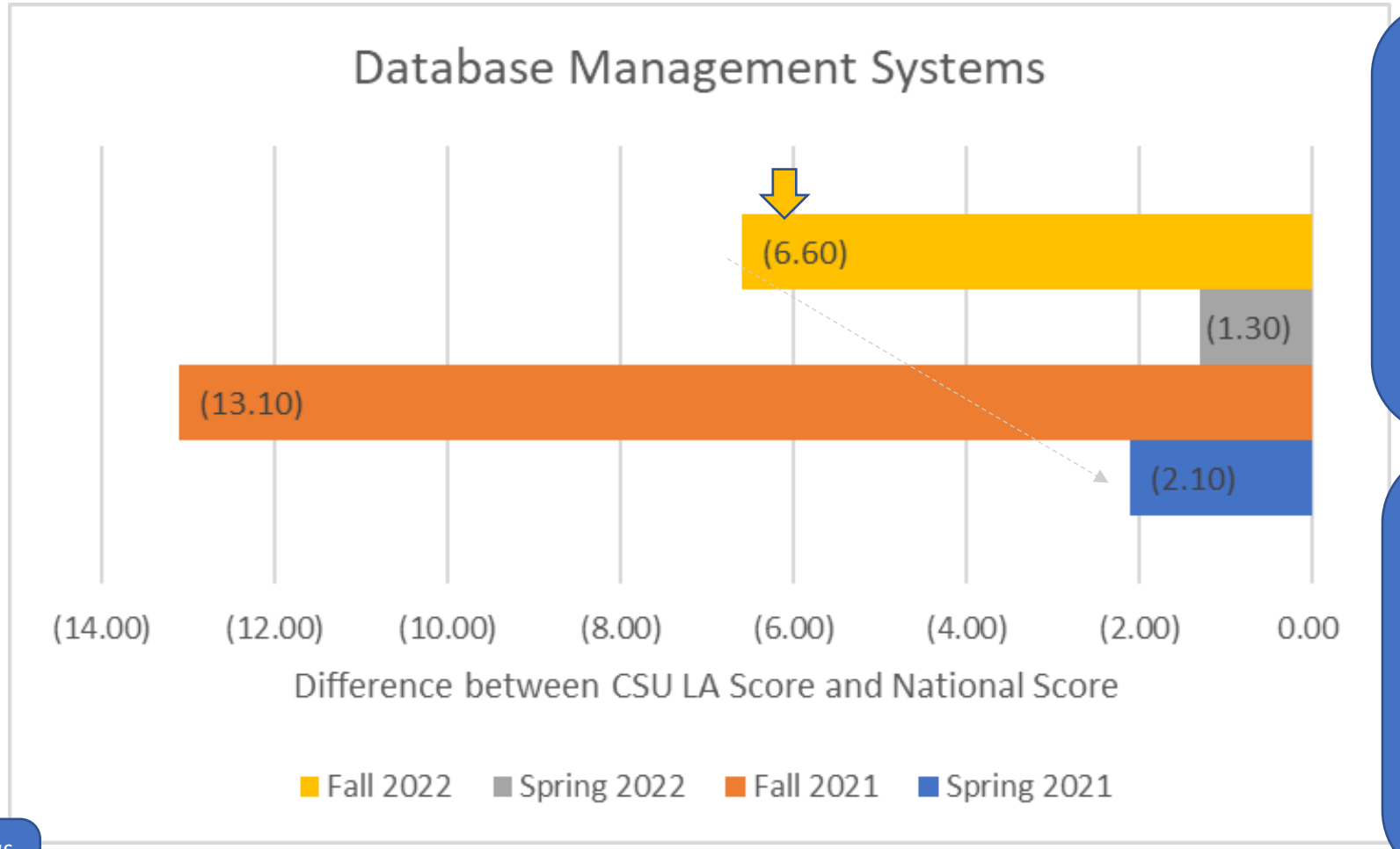
Knowledge Area: Data Architecture and Data Integration



In comparison to Spring 2021, students' Data Architecture and Data Integration scores increased by 6.9% points in Fall 2022

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Knowledge Area: Database Management Systems

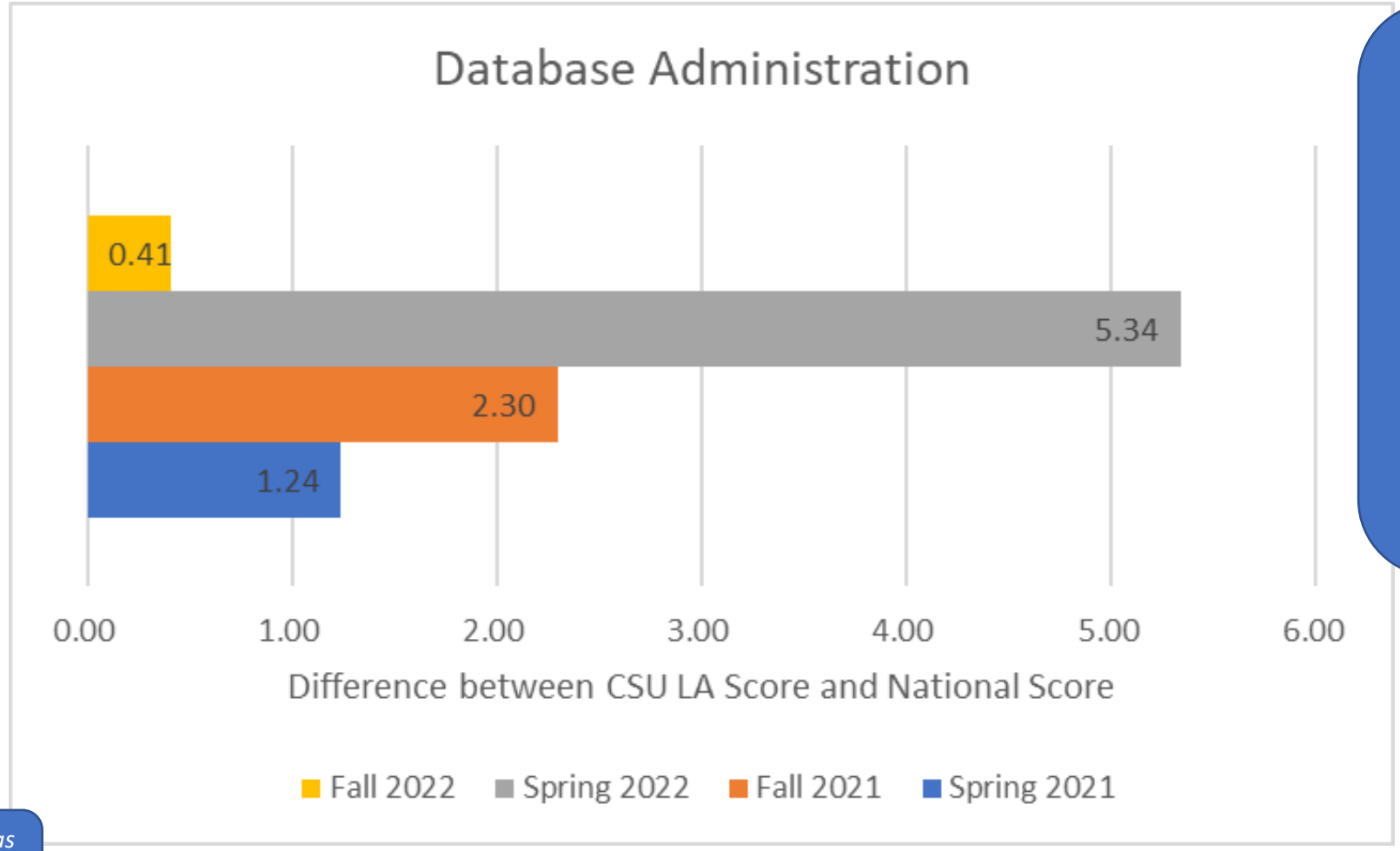


In comparison to Spring 2021, students' Database Management Systems scores decreased by 4.5% points in Fall 2022

There is an interesting trend in both fall semesters where students' scores are lower than expected.

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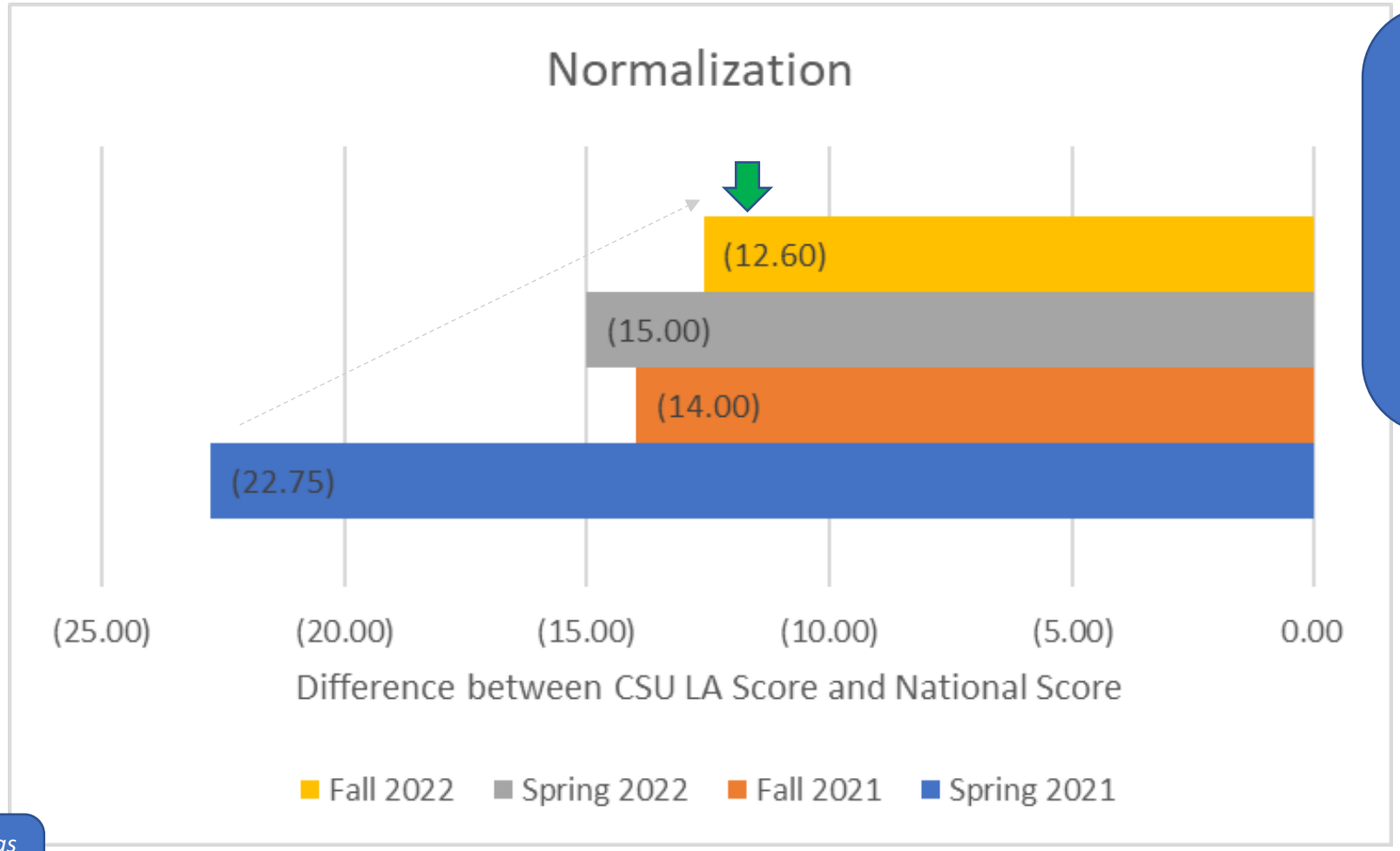
Knowledge Area: Database Administration



CSU LA students have consistently outperformed the national average for Database Administration

***A positive score represents areas where CSU LA students are doing better than the national average*

Knowledge Area: Normalization



In comparison to Spring 2021, students' Normalization scores increased by 10.15% points in Fall 2022

***A positive score represents areas where CSU LA students are doing better than the national average*

Conclusion

- Students improved on all knowledge areas
- In future, additional assessment instruments will be added
- Continue assessment with ICCP: recognized global industry certification from the Institute for Certification of Computing Professionals

Thank You

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BUSINESS &
ECONOMICS