SAN DIEGO STATE
UNIVERSITY

Guide to Being
a Data Champ

NSF

About This Guide

In this Data Champion's Program companion guide, Data Champions will find general information about the program, Fall and Spring schedules, workshops preparation materials, and resources and guidelines for completing all requirements of the Data Champion program. This ever evolving guide will continue to be updated and refined as new data resources are discovered. We welcome any and all feedback to ensure this guide is as useful as possible and meets the needs of all our Data Champions. For the most recent version of this guide please visit the [Data Champion's Team Drive](#).

Guide Table of Contents

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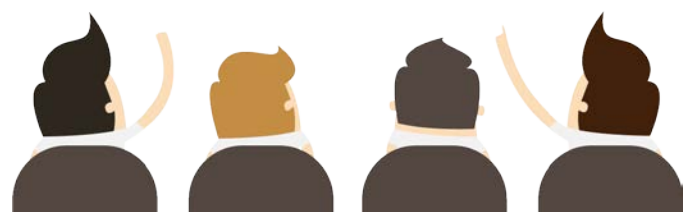
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Data Champion Partners

Analytic Studies and Institutional Research (ASIR) - ASIR's key mission is campus decision support. ASIR is committed to providing access to comprehensive and strategic information, conducting in-depth analyses, and utilizing effective reporting tools to support data-informed decision-making at all levels of the University. ASIR

CO-Student Success Initiatives – The Primary aim of the Student Success Initiative team is to ensure that all students have the opportunity to graduate in a timely manner according to their personal goals, positively impacting their future and producing the graduates needed to power California and the nation.

Division of Academic Engagement and Student Achievement (formerly DUS) - The mission of DAESA is to promote student success by providing for all undergraduate students specific academic pathways to world-class intellectual resources and transformative experiences. DAESA

Other Academic Affairs: ITS, SIMSR Operations - The SIMS/R group provides support for the Student Information Management System. This includes the development and maintenance of the SIMS/R database, and generating reports to support admissions, registration, advising, and curriculum decisions campus wide.

Student Affairs Research and Assessment (SARA) - The Division of Student Affairs is a partner in the university learning community. Education is enhanced, both inside and outside of the classroom, through high-impact programs and services that advance student learning, development, and success. Student Affairs

Data Crew

Campus data partners and key collaborators.

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Theresa Garcia

Natasha Forbes-Celise

Yusuf Ozturk
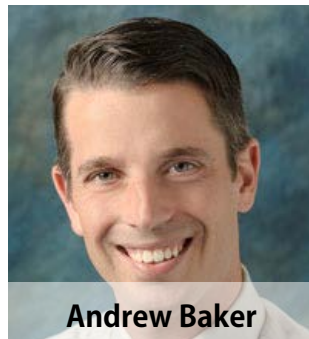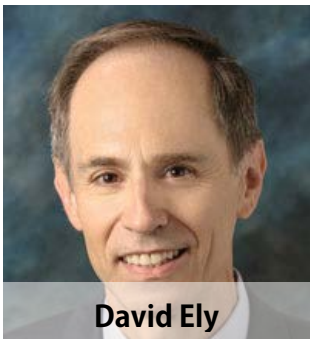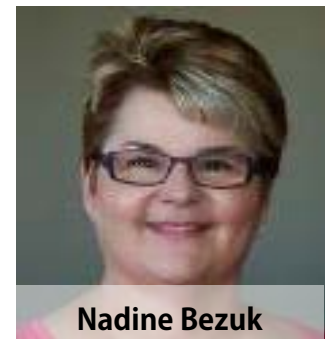
Data Champions

College of Health and Human Services

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Ignatius Nip
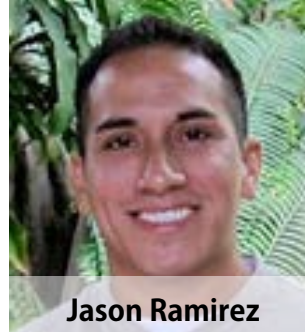
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Annie Foral

Lanie Lockwood

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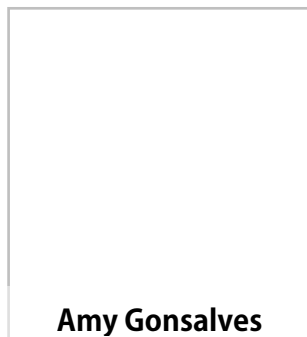
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Estralita Martin

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Lisa Kath

John Crockett

Division of Student Affairs

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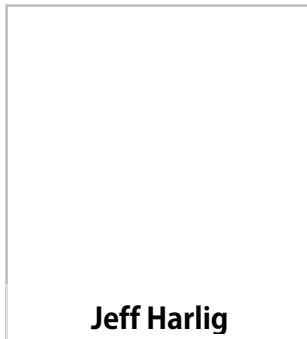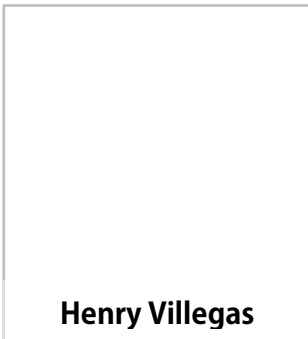
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Natalie Wong

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Kara Bauer

Adam Dilla

Sallee Spearman

Lisa Lamont
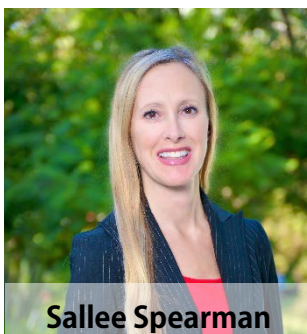
Coach Assignments

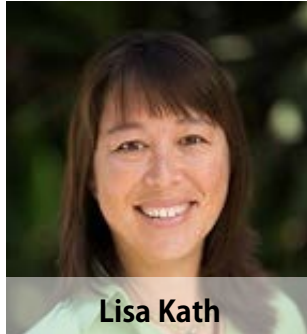| COACH NAME	TITLE	COACH TYPE	AREA OF EXPERTISE
HIDAHIS MESA	Research Analyst	Primary	Data organization, data exploration, dashboards, action research
ARTHUR PASTERNAK	Research Analyst	Primary	Data organization, data exploration, dashboards, action research
CYNDI CHIE	Analyst Programmer	Primary	Data organization, APEX, SIMSR
RICH LEVINE	Professor	Primary	Statistical methods, data mining, contextual relevance, action research
REY MONZON	Director, SARA	Primary	Survey development, statistical methods, data organization
ANNA JOST	Research Analyst	Primary	Survey development, statistical methods, data organization
JEANNE STRONACH	Director, ASIR	Primary	Data organization, data exploration, dashboards, action research
JUANJUAN FAN	Faculty	Subject Area	Statistical methods
BERNIE DODGE	Faculty	Subject Area	Learning Design
MAUREEN GUARCELLO	Instructional Designer	Subject Area	Statistical methods, contextual relevance
XI YAN	Data Scientist	Subject Area	Statistical methods
JOSH BEEMER	Graduate Research Asst, ASIR	Subject Area	Statistical methods
CRIS MANLANGIT	Student Asst, ESIT	Subject Area	Statistical methods
STEPHEN SCHELLENBERG	AVP, Student Achievement	Subject Area	Contextual relevance, action research

DATA CHAMPION TEAM	TEAM LEAD	PRIMARY COACH	SECONDARY COACH
ARTS AND LETTERS	Audrey Beck	Hidahis Mesa	Stephen Schellenberg
BUSINESS	Andy Baker	Arthur Pasternak	Maureen Guarcello
EDUCATION	Sandy Kahn	Arthur Pasternak	Maureen Guarcello
ENGINEERING	Natalya	Hidahis Mesa	Xi Yan
HEALTH AND HUMAN SERVICES	Mark Reed	JuanJjuan Fan	Rich Levine
PROFESSIONAL STUDIES AND FINE ARTS	Lanie Lockwood	Cyndi Chie	Cris Manlangit
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LIBRARY ADMINISTRATION	Sallee Spearman	Jeanne Stronach	Bernie Dodge
STUDENT AFFAIRS	Jeff Harlig	Rey Monzon	Anna Jost
HOUSING ADMINISTRATION AND RESIDENTIAL EDUCATION	John Godfrey	Anna Jost	Rey Monzon

Program
Overview

Data Champions Program
Fall 2017- Spring 2018

The Data Champions Program brings together selected campus administrators, faculty, and staff in an effort to facilitate data-informed decision-making in support of student success. The program is motivated by the CSU Graduation Initiative 2025 (GI2025), SDSU strategic goals, and efforts to expand University data capabilities. By becoming proficient in the data tools available, Data Champions will be empowered to identify potential predictors of and barriers to student success and to collaborate with colleagues to develop data-informed programs and initiatives.

(Program Description Credit: 2016 -2017 CSUN Data Champions Program Overview)
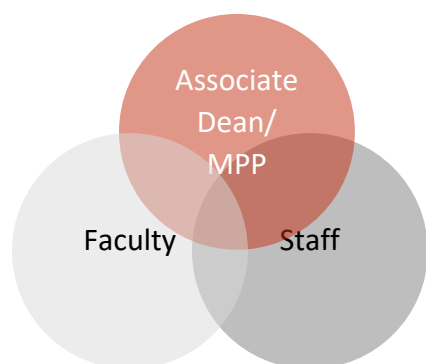
Each unit will have a team that includes at least one associate dean, one faculty member and one staff member. Data Champion Captains and Coaches will assist Data Champions by providing resources and outlets for ongoing discussion of the Graduation Initiative 2025 goals. Coaches will also provide hands-on training, consultation on institutional data, feedback, and promote collaboration among the Data Champions.

Program Overview

Fall 2017
Data Champions will attend training sessions centered on inquiry-based activities and discussions. Through these sessions Data Champions will build their understanding of institutional data and information resources in order to identify a significant student success issue facing their unit for which data can help provide actionable solutions.

Spring 2018
In the spring, Data Champion teams will be paired with a Data Coach to begin executing their proposed projects. Twice-monthly Data Champion meetings will be scheduled to discuss progress and results.

Program Goals and Objectives

Program Goals:

- Promote campus-wide evidence-based decision-making.
- Encourage collaboration across units to enhance student success.
- Communicate goals of GI 2025 and help campus units take ownership.
- Engage faculty and staff in strategic planning and policy decisions.

Data Champions Program Learning Outcomes:

- Achieve an understanding of Graduation Initiative 2025, student success metrics, and how these initiatives relate to the goals of each Data Champion's specific unit.
- Build data literacy by exploring data resources such as CSU and SDSU dashboards.
- Identify predictors of and barriers to student success within each Data Champion's specific unit.
- Learn best practices for summarizing and visualizing institutional data.
- Communicate inferences drawn from institutional data to key university stakeholders.
- Promote awareness of information resources across campus – Be a Data Champion!

Data Champion Responsibilities

Fall 2017

- Attend all four Data Champion workshops.
- Complete all workshop preparatory assignments on time.
- Consult with and provide updates to unit leadership on project ideas and progress.
- Explore and provide feedback on the Data Champion Program, ASIR internal portal, SDSU Student Success Exploration & Analytics dashboards, and CSU Dashboards.
- Submit a draft proposal for data project by Friday, December 15th.

Spring 2018

- Submit a final proposal in January 2017 (date TBA).
- Attend Spring 2018 Data Champion Program meetings (dates TBA).
- Execute the proposed data project in Spring 2018.
- Present findings from data project at the final Spring 2018 Data Champions Program meeting and at appropriate campus venues (e.g., dept/college meetings, etc.).
- Work with Data Champions Program personnel to develop a plan to promote data literacy and data-informed decision making at the Champions' administrative unit.

Program Bonuses and Support

Through successful completion of all requirements of the program, Data Champion faculty and staff can earn up to $1,000 in the fall term and an additional $2,000 at the end of spring for a total bonus of $3,000.

Fall 2017 Bonus ($200 base + $200 per meeting for four meetings)	$ 1,000
Spring 2018 Bonus ($200 base + $200 per meeting for four meetings)	$ 1,000
Spring 2018 Bonus (upon approval of submitted Communication/Implementation Plan)	$1,000

Coach Guidelines

Summary:

Data Champion coaches are a resource to help Data Champion teams understand the data, find existing data resources, help identify proper methods and help interpret results. Each team will be assigned a primary coach who will regularly meet with teams to answer questions and facilitate communication with subject area coach experts as necessary.

Primary Coach Duties

- Review proposals and provide comments (reflecting comments from all coaches)
- Collect any survey/participation/other data from team to be linked to ASIR data
- Help develop data sets including linking external data to ASIR/SIMSR data
- Communicate weekly with teams about project and help move the project forward
- Meet regularly with Data Champion teams
- Answer questions, provide clarification
- Attend Spring workshops and present information as needed
- Provide guidance about data and analysis
- Facilitate meetings with subject area experts
- Review results and provide input on presentation of findings

Subject Area Coach Duties

- Provide guidance to Data Champion teams in area of expertise e.g., statistical methods, APEX, survey development, dashboard development etc.
- Develop training materials and present information at the Spring workshops
- Communicate/meet with Data Champions as necessary
- Attend Spring workshops
- Review results and provide input on presentation

Fall 2017

Workshop Schedule

Workshop 1

Friday, Oct. 20th	Friday, Oct. 27th
Preparation Due	11:30 AM – 1:00 PM
Workshop 1 Prep	EBA 410 – Lunch Provided

1.5

Friday, November 3rd

Optional SSEA Dashboard Training
11:00 AM – 12:30 PM - EBA 410

Workshop 2

Thursday , Nov. 9th	Friday, Nov. 17th
Preparation Due	11:30 AM – 1:00 PM
Workshop 2 Prep	EBA 410 – Lunch Provided

2.5

(Postponed until Spring Semester)

Optional Stats Refresher

Workshop 3

Monday, Nov. 27st	Friday, Dec. 1st
Preparation Due	11:30 AM – 1:00 PM
Workshop 3 Prep	EBA 410 - Lunch Provided

Workshop 4

Wednesday, Dec. 13th	Friday, Dec. 15th
Proposal Draft Due	11:30 AM – 1:00 PM
Proposal Guidelines	EBA 410 – Lunch Provided

Spring 2018
Workshop Schedule

Workshop 5

Friday, January 26th

Data Sharing, FERPA, Team/coach meetings

11:30 AM – 1:00 PM
EBA 410 – Lunch Provided

Workshop 6

Friday, February 23rd

Optional Survey Design & Qualtrics Training

11:30 AM – 1:00 PM
EBA 410

Workshop 7

Friday, March 23rd

Optional Stats Refresher & How-To Tableau Training
Written Update Due to Coaches

11:30 AM – 1:00 PM
EBA 410

Workshop 8

Friday, May 4th

Team Presentations

10:00 AM – 3:00 PM
EBA 410 - Lunch Provided

Data Sharing
and Security

Confidentiality Agreement

It is the policy of Enrollment Services and San Diego State University that any and all information regarding or pertaining to prospective students and/or current or former students is confidential and shall be considered and handled with discretion and confidentiality. This information includes, but is not limited to:

Student demographics
Academic Performance (GPA, SAT scores, class rank, etc.)
Outcomes (probation, graduation, grades)

I, _____, accept responsibility for maintaining the confidentiality and security of student information, whether that information is in hard copy, electronic, audio, visual, or other formats, and I agree that I will comply with the policies of Enrollment Services, and San Diego State University. I am committed to protecting the privacy of student records and adhering to the regulations identified in the Federal Family Education Rights and Privacy Act (FERPA) of 1974.At the completion of my Data Champion project I agree to delete all data shared by the Data Champions program with my team.

_____

Signature

_____

Date

Data Sharing Guidelines

Step 1: Complete Data Security Administrative Tasks
- Complete FERPA training.
- Read and sign electronic Confidentiality Agreement

Step 2: Access Data
- Once FERPA training is complete and Confidentiality Agreement signed, you can access the Excel file.
- Open the file from ASIR's SDSU SharePoint site (SDSUid login required for access)
  - If necessary, login to SDSU intranet/SharePoint site
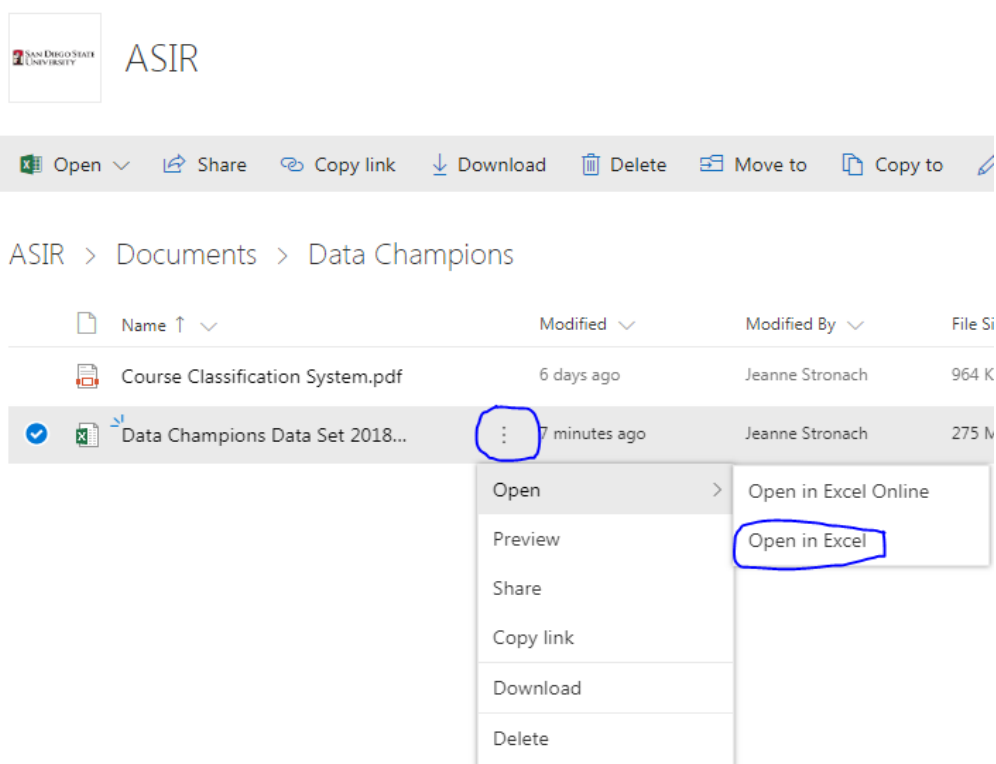
- Click on the 3 circles next to file name and choose Open → Open in Excel
- Click OK to open Excel on your desktop
- The file is very large and takes a few minutes to load.

Step 3: To make changes to the data set:
- Download and save as a new file
- In Excel, choose File ----> Save as (select your OneDrive or secure file server)
- File can be loaded into statistical package
- Any downloaded copies of the data should be stored in personal OneDrive directory or secured file server and deleted at the end of the DC program.

Step 4: Understanding the Data

- Review the Data Champions Data Set Dictionary to understand the data fields, values and how the information was derived.
- Review the Update Summary for new additions (each Friday).
- Use pivot table functionality in Excel to easily create frequencies across variables and better understand the data set (see screenshot below).
- Request additional data for section-based inquiry or for other data be linked to existing data set.
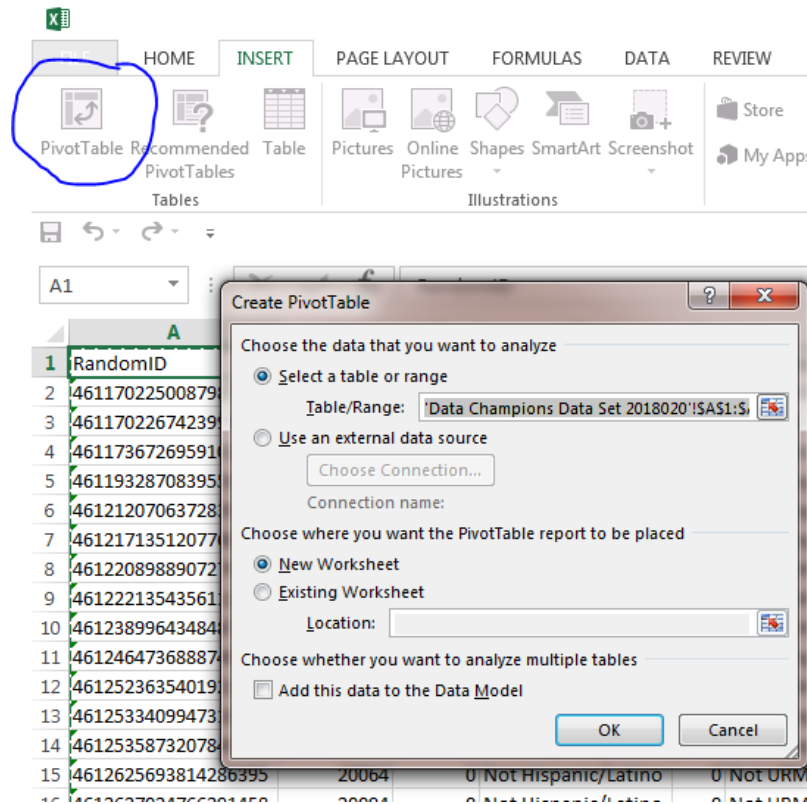
Other Resources

FERPA Guidelines

ASIR SharePoint access:

All Data Champions are set up as visitors but you must follow the ASIR site:
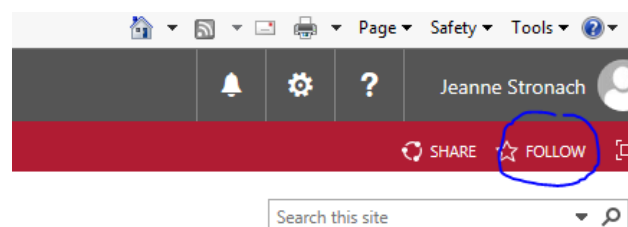
Workshop 1:

Identifying Student Success Challenges

Workshop One

Identifying Student Success Challenges

Workshop Goals:

- Appreciate role of GI2025 in student success.
- Appreciate challenges in meeting the GI 2025 goals.
- Identify common student success challenges and themes among DC colleges and administrative units.

How to Prepare:

- Complete Data Champion Background Survey.
- Review Data Champions Program Outline.
- Review Graduation Initiative 2025 & Strategic Goals Guide.
- Briefly review ASIR website and basic campus statistics.
- Complete workshop preparation worksheet below.
- Prepare for discussion at workshop: *How do your student success goals tie into GI 2025 goals? How may they (seemingly!) not tie in?*

Consult with unit leadership and colleagues to identify student success challenges and connect these with the CSU Graduation Initiative 2025. Your Data Champion Project Proposal will likely develop from one or more challenges identified in this list.

Issue/Area of Inquiry	How it relates to GI 2025 and Student Success

Graduation Initiative 2025

What is the Graduation Initiative 2025?

Graduation Initiative 2025 is the California State University's ambitious initiative to increase graduation rates for all CSU students while eliminating opportunity and achievement gaps. The goal put forth by the CSU is that all students have the opportunity to graduate in a timely manner according to their personal goals, positively impacting their future and producing the graduates needed to power California and the nation. (1)

Why were these targets set?

Research from the Public Policy Institute of California indicates that California will face a deficit of nearly 1.1 million degrees by the year 2030. Graduating more students at the CSU represents California's largest opportunity to meet the demand for highly educated workers while also providing significant opportunities to diverse populations.

What are the SDSU Full-Time First-Time Freshman Targets?

4-Year GI2025 FT-FTF Graduation Rate Target = 54%.
6-Year GI2025 FT-FTF Graduation Rate Target = 86%.

4-Year FT-FTF Graduation Rate for Fall 2013 Cohort = 39.6%.
6-Year FT-FTF Graduation Rate for Fall 2011 Cohort = 75.3%.

What are the SDSU Full-Time New Upper Division Transfer Targets?

2-Year GI2025 FT-NUDT Graduation Rate Target = 51%.
4-Year GI2025 FT-NUDT Graduation Rate Target = 91%.

2-Year FT-NUDT Graduation Rate for Fall 2015 Cohort = 50.2%.
4-Year FT-NUDT Graduation Rate for Fall 2013 Cohort = 85.3%.

How does SDSU plan to achieve these targets?

To achieve 2025 goals, SDSU primarily plans to focus on enrollment management, advising, student success support services, and success in low completion rate courses.

How are graduation rates calculated?

View our Illustrated Guide to Understanding Graduation Rates!

Graduation Initiative 2025 Resources

CSU Resources

- CSU Graduation Initiative 2025 ➔
- CSU Zero Graduation Gaps & Strategies ➔
- How Graduation Targets Were Determined ➔
- Comparable Institutions ➔

SDSU Resources

- SDSU Strategic Plan ➔
- SDSU Campus Plan ➔
- SDSU College Targets (Tableau access required) ➔
- Data Champion Dashboards ➔

Graduation Rates Illustrated

By now you may be wondering, how exactly are graduation rates calculated? Or if you already know, you may still be surprised by a few graduation rate calculation nuisances. The following examples will specifically look at the Full-Time First-Time Freshmen (FT-FTF) six year graduation rate, but the same principles apply to the FT-FTF 4-year and New Upper-Division Transfer (NUDT) 2-year and 4-year graduation rates.

A few key terms:

Cohort: A cohort is a group of students entering the university in a particular semester.
Full-Time: An undergraduate student taking 12 or more units at fall matriculation is considered Full-Time.

SDSU Graduation Rate

Fall 2019 Cohort   ...6 Years Later

$$^4/_5 =$$

$$80\%$$

FALL 2019 SDSU FT-FTF Graduation Rate

Non-Grad

The Denominator = 5
If 5 Full Time First-Time Freshmen begin at SDSU in Fall 2019…

The Numerator = 4
…and if 4 out of the 5 students go on to graduate within six years, the Fall 2019 six-year First-Time Freshman graduation rate will be equal to 80%.

FAQ

How are summer terms counted in the graduation rates? When calculating graduation rates, students graduating in summer terms are included in the rates similar to spring graduates. For example, first-time freshmen entering in Fall 2019 and graduating by summer of 2025 will count towards the Fall 2019's six-year graduation rate.

What if first-time freshmen entering in Fall 2019 are still enrolled after summer 2025 and graduate at a later date? They will earn their Bachelor's degree but will <u>not</u> count towards the six-year graduation rate.

Who is not counted in the graduation rate? Students who enter the university as part-time students in their first semester do not count towards SDSU's graduation rate. This population has declined significantly over time.

College Graduation Rates

College and Department graduation rates are a bit trickier to interpret than overall graduation rates because college and department graduation rates are calculated based on the student's declared major at fall matriculation.

Fall 2019 Cohort

...6 Years Later

The Denominator = 4
For example, if 4 First-Time Freshmen from the Fall 2019 Cohort begin their first semester at SDSU in the College of Liberal Arts, these students are the only students that will count towards CAL's graduation rate.

$$^3/_4 = 75\%$$

Fall 2019 CAL FT-FTF Graduation Rate

The Numerator = 3
The college graduation rate is based on how many of these students go on to graduate from any college. For example, if 3 of 4 students who entered SDSU in CAL graduate by summer 2025, the CAL Fall 2019 6-year FT-FTF graduation rate will be equal to 75%.

CAUTION!
Notice that even though 2 of the FT-FTF who started in CAL graduated in HHS and BUS, they still count toward the CAL Fall 2019 FTF six-year graduation rate. Note: Graduation rates at the program and degree levels are calculated in a similar manner.

FAQ

Who is not counted in the CAL's graduation rate? Fall 2019 first-time freshmen who graduated in the College of Liberal Arts but did not matriculate in this college.

In the scenario above, do the two students who graduated in HHS and BUS also count towards the HHS and BUS graduation rates? No. Since these students entered the university as CAL majors, they only count towards the CAL graduation rate.

Workshop 2:

Defining Challenges using Data Resources

Workshop Two

Defining Challenges Using Data

Workshop Goals:

The goal of this workshop is to promote exploration of information resources to identify student success challenges with objective metrics. The aim is to narrow focus on the most impactful and actionable student success challenges.

How to Prepare:

- Review Guide to Being a Data Champion's Data Resource Vault.
- Complete workshop preparation worksheet below to continue to refine student success challenges for the DC project proposal.
- Prepare for discussion at workshop: *What opportunity gaps do you identify using the data resources? What are data resources you wish you had access to?*

Use this form to explore student success challenges identified in Workshop One. Identify and submit form for __top three__ challenges facing your unit. Use data resources to answer these questions and to collect other information to quantify and define the issues. List other questions you have and where you had trouble finding relevant information.

Student Success Issue:	
How many students does this issue affect? Explain how the number of students is summarized (e.g., number of students enrolled in a course over a specific time period).	
What are the outcomes for the affected students? Which outcomes are most salient?	
Is there a comparable students to whom the outcomes of affected students can be compared? What is the rationale for the comparison? How many students?	
What are the outcomes for both groups?	
Which courses and/or programs are related to these students or issue?	
What are the course and/or programs outcomes overall, for specific students?	
What faculty issues are related to this challenge?	
How have other institutions tackled this challenge?	
What other data would be helpful to defining and/or solving this challenge that you were not able to find?	

Data Champion's Data Resource Vault
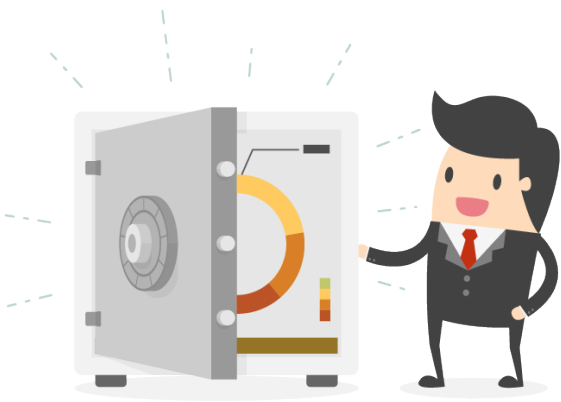
Where do I go to find general information about SDSU?

Analytic Studies and Institutional Research Website – The ASIR public website is a great place to start when looking for data. The many data visualizations and easy to read data tables can help users answer basic enrollment, demographic, and outcome questions about SDSU or a particular college. The ASIR Website also includes an extensive data resource page!

Where do I go to find more specific aggregate information about my particular department or majors?

Student Success Exploration and Analytics Dashboards – The SSEA dashboards provide users with similar aggregate information found on the ASIR website but to a greater degree of granularity. Dashboards in SSEA can be filtered to the departmental and major level and require Tableau access. The SSEA Dashboard directory is a great place to start learning about all of the reports and help documents available throughout this resource.

Other Tableau Reports –

- **District Profiles** – The district profiles summarize student profiles and outcomes by high school and community college institutions of origin. To request access to this report contact oir@mail.sdsu.edu
- **Student Affairs Research and Assessment Reports** – SARA reports provide aggregate student information for student support programs such as EOP and Compact Scholars.

Where do I go if I need access to individual student level records?

While the vast majority of questions can be answered using the resources listed above, there are times when individual student reports are needed for advising and targeted interventions.

Student Data Requests via the Registrar's Office – Request for individual student data can be made through the Registrar's Office and are generally provided to you through an APEX report. For the Data Champion projects, we will be facilitating access to individual, anonymized data when necessary.

APEX Reports – APEX reports have been developed for curriculum, schedule building and other administrative and advising functions. Improvements in APEX user management will soon allow broader access to these reports.

Where do I go if I want to compare my data with other CSU campuses?

CSU Student Information Dashboards –Like SDSU's Analytic Studies and Institutional Research public website, the CSU Student Information Dashboards provide users with basic enrollment, demographic, and outcome information for all CSU campuses. These dashboards also provide labor market outcome statistics for CSU graduates employed in state of California. Additional CSU statistics are also available through the CSU Analytics Studies website.

CSU Student Success Dashboards – The CSU student success dashboards were created to specifically support the Graduation Initiative 2025 and to provide campuses with actionable data. The faculty student success dashboards are a highly recommended resource for all faculty interested in learning more about their program, and comparing key metrics such as course failure rates, to similar programs at other CSU institutions.

CA Board of Education (CBEDS) – A rich resource of K-12 student data and statistics.

Where do I go if I want to compare my data with other universities or the national higher education landscape?

Integrated Postsecondary Education System (IPEDS) – IPEDS gathers information from every college, university, and technical and vocational institution that participates in the federal student financial aid programs. The Higher Education Act of 1965, requires that institutions report data on enrollments, program completions, graduation rates, faculty and staff, finances, institutional prices, and student financial aid. These data are made available to students and parents through the College Navigator college search Web site and to researchers and others through the IPEDS Data Center [resource: About IPDEDS: What is IPEDS?].

National Center for Education Statistics (NCES) – The National Center for Education Statistics (NCES) is the primary federal entity for collecting and analyzing data related to education in the U.S. and other nations. NCES fulfills a Congressional mandate to collect, collate, analyze, and report complete statistics on the condition of American education [resource About US: About NCES]. The NCES is a great resource for learning more about general higher education policies and their impact on higher education.

Education Trust – The Education Trust is a non-profit policy advocacy organization that has developed several useful higher education data resources such as College Results Online – which compares the cost and outcomes of universities serving similar students, the Pell Graduation Rate Tool – which monitors the graduation rate outcomes of pell-recipients throughout the nation, and the California Financial Aid Tracker – which monitors financial aid application rates.

Add your own!

Have a great resource you would like to share with your fellow data champions? Share it with us!

Workshop 3:

Illustrations of Campus Student Success Studies

Workshop Three

Illustrations of Student Success Studies

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Workshop Goals:

The goal of this workshop is to help Data Champions conceptualize the details of their projects through review of completed student success studies and research frameworks.

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How to Prepare:

- Review Program Evaluation Guide.
- Consult with unit leadership and complete workshop preparation worksheet below for the top student success challenge to be developed into a DC Project proposal.
- Prepare for discussion at workshop: *What are the goals of my DC project? What steps must be completed to execute my proposal? What challenges may impede my project execution?*

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</table>

Begin brainstorming for your DC project proposal. This is an opportunity to continue perusing the data resources consulting with unit leadership as you focus your project with respect to feasibility, data elements required, impact on student success.

Student Success Issue:	
List existing data resources that will support selected project.	
List additional data needed (e.g., raw data, new survey, focus group etc.). How will you collect this additional data? How much time will it take you to compile it? How feasible is the data collection?	
Identify methods that may be required for your project. (E.g., data visualizations, descriptive summaries, statistical analyses. Try to be specific in order to gauge feasibility and time commitment.)	
Project timeline, including data collection if needed and project reporting (e.g., written report, dashboard, presentations to unit/campus leadership).	
Expected project outcomes (actionable and related to student success and GI 2025).	

Project Workflow Guide

Planning

- Collect Background Information (Optional Guide)
- Conduct Literature Review (Optional Guide)
- Draft Research Proposal (Guide)
- Explore Data (Optional Guide)

Data Curation

- Identify data resources
- Review data documentation
  - Document new data fields
- Data compilation and organization
  - Create mechanism to extract data from necessary sources, creating and documenting new variables, etc.
  - Prepare data for cleaning and variable selection
- Compile and import the data into statistical analysis environment (e.g. Excel, R, SAS, SPSS)

Data Analysis

- Choose the analysis approach
- Execute the statistical procedure
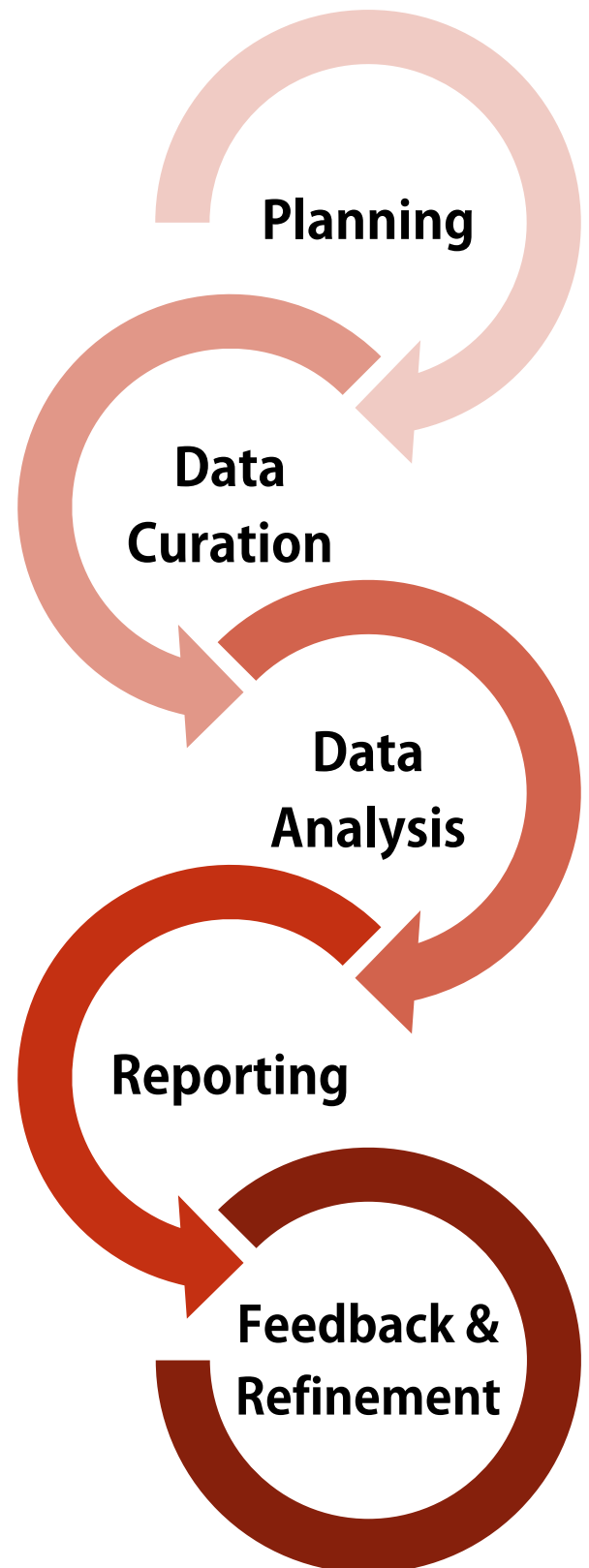- Organize scripts and save the query and output

Data Reporting

- Draft project executive summary
- Present study results

Executive Summary · Descriptive Analysis · Intro to Selected Analysis Method · Assess Model Performance · Subgroup Analysis

- Publish Results and Collect Feedback

Feedback and Refinement

Planning

Data Curation

Data Analysis

Reporting

Feedback & Refinement

Keep In Mind...

Every project is unique! This project workflow guide is just a *guide*. Depending on the needs and focus of your particular project, you may not need to follow every step in this guide. This guide is also not exhaustive, and projects may require additional steps in order to be executed effectively.

Context matters! A great analyst always takes a project's context into consideration. Understanding stakeholders, knowing your audience, and familiarizing yourself with your topic of interest as much as possible will ultimately help you determine the best plan of action for your particular project.

Research is iterative! Many of the steps in this guide will need to be revisited multiple times throughout the research process. Patience and flexibility, is key to the completion of a successful analysis project!
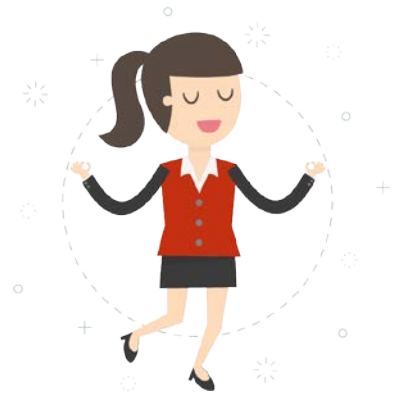
Research and Evaluation Resources

- [ASIR Program Evaluation Analysis Visual Flowchart](#)
- [The Manager's Guide to Evaluation](#)
- [AEA 365 | A Tip-A-Day by and for Evaluators](#)

Add your Own!

Have a great resource you would like to share with your fellow data champions? [Share it with us](#)!

Workshop 4:

Data Champion Projects

Project Proposal Guidelines

Data Champion projects will focus on using data to investigate and identify ways in which the DCs' college/department/unit can help improve student success relative to the CSU Graduation Initiative 2025 and student progress to degree.

Specific Project Aims/Introduction:

One or two sentence description of main purpose for project. What student success questions are you addressing? What questions does the project hope to answer?

Background:

Why is project important? What relevant policies or historical trends have motivated project? How does project align with the Graduation Initiative 2025 and SDSU strategic goals and what impact can project outcomes potentially have on the university? How can answers to these questions inform practices in your unit?

Plan of Work

- Who are the populations of interest?
- How will "success" be measured?
- What must be accomplished in order to meet project objectives?
- What data can be compiled from existing resources?
- What new data must be compiled?
- What is the project time-line?

Sample Content:

Collaborate with program leaders and key stakeholders to:
- Document program history and identify any important or significant changes in implementation.
- Assess extent to which program is currently evaluated.
- Gather any additional data or participation measures not currently stored in SIMS/R or in ASIR.

Analytics:
- Gather, clean, and organize data from SIMS/R and ASIR data-warehouse. SIMS/R covariates presented in the appendix. Assimilate data collected by program.

Methods:

What methods will be applied to conduct the analyses? Summary of intended study design (e.g., surveys, focus groups, and/or data collection) and data analysis approaches (e.g., descriptive summaries, data visualizations, and/or statistical analysis to be performed).

Deliverables:

How will results be communicated to campus and program leaders? These results may help inform program evaluation reports, program funding requests, proposed initiatives for refining and improving the program, and future program assessments.

Sample Content:

- Executive summary of all findings to be shared with program administrators and campus leadership.
- Study results delivered via a collection of visualizations or dashboards as well as a report.
- Presentations at appropriate venues to communicate results of the project and share experience using data resources.
- Other deliverables as appropriate for selected project.

Proposal Due Date:

Wednesday, December 13th, 2017. Project proposal draft should be shared for review via Data Champions Workshop 4: Proposals Google Drive folder. Final proposals will be due in January.

Additional Resources:

Sample Project Proposal – Math Learning Center Project Proposal

UC Berkeley Office of Undergraduate Research & Scholarships: Writing Research Proposals.
University of Michigan's - The Proposal Writer's Guide
The Professor Is In - Dr. Karen's Famous and Foolproof Research Proposal Template
UIUC University Library - Writing a Research Proposal: Parts of a Proposal
Social Science Research Council - On the Art of Writing Proposals
USC Library Research Guide - Organizing Your Social Sciences Research Paper: Writing a Research Proposal

Final Report Guidelines

Report Due Date: Friday, September 7th, 2018.

Upload report to Google Team Drive Final Report folder. Final report abstracts will be posted on ASIR Website. Final report should include each of the following subsections.

Executive Summary

The Executive Summary may be based off the abstract submitted for the presentation at the final DC Program spring semester meeting the beginning of May. Executive summary should include a brief summary of the project's aims, background, key findings, and recommendations.

Data Gathering and Methodology

What data collection strategies and methods were used to gather project findings?
- Project data sources & population(s) of interest
- Metrics developed; including success metrics and metrics developed to define population(s) of interest
- Study design (e.g., surveys, focus groups, and/or data collection)
- Data analysis approaches (e.g., descriptive summaries and/or statistical analyses performed)

Findings
- Date tables and visualizations which illustrate project's findings and tell a data story

Strategic Planning

How do the project findings help inform the unit's student success initiatives?
- Recommendations for new initiatives and refining existing ones.
- Recommendations for improvements in processes (e.g., course scheduling, advising etc.)
- Recommendations for further research

Communication and Outreach

How will results be communicated to campus and program leaders?
- Identify key stakeholders and appropriate communication venues
- Proposed and/or planned presentation timeline

Program Reflections

How has participating in the Data Champions program helped facilitate campus culture of evidence-based decision-making?
- Project successes and challenges
- Brief discussion of the alignment of the final project with initial proposal ideas during the Fall workshop
- Data Champions learning outcomes self-assessment
- Recommendations for Data Champions program improvement

Appendix
- Surveys or additional instruments used to collect or gather data
- Final Spring presentation PowerPoint (in page outline form)
- Supplemental material--additional graphics, descriptive summaries, and/or analyses

Sample Data Champion Projects

Project ideas from CSU Long Beach Data Champions:

Qualitative Projects
- Conduct student focus groups to identify causes of delayed graduation
- Analyze NSSE & FSSE surveys

Academic Pathway Projects
- Investigate major switching patterns
- Profile academic characteristics of a successful pre-major

Special Population Projects
- Identify retention risks for undeclared students
- Investigate the problem of ITEP/BA switching

Program Evaluation Projects
- Evaluate effectiveness of Early Start writing program

Course Projects
- Analyze high DFW and gate-way courses
- Explore course taking patterns and focus on eliminate bottleneck courses
- Examine the needs of students enrolled in the Developmental English course

Acknowledgements

Attributions

Images Designed by Doodler/Freepik, and modified for guide.

Cover:
- [Boy reading a book](#)

Meet the Data Champions:
- [Business Woman in a Presentation](#)
- [Business background Design (man with megaphone)](#)
- [Business Woman Looking Through a Telescope](#)

Program Goals and Objectives:
- [Boss and employees working together](#)

Program Timeline:
- [Time administration with employee with alarm clock](#)

Graduation Initiative 2025:
- [Man painting a ladder on the wall](#)

Illustrated Guide to Understanding Graduation Rates:
- [Graduation Hat](#)
- [Boss choosing an employee](#)
- [Man being chosen](#)

Data Resource Vault:
- [Creative Businessman character (Man with Vault)](#)
- [Businessman with a laptop](#)

Project Workflow Guide:
- [Businessmen Drawing Design](#)
- [Ideas in the Head](#)
- [Businesswoman character relaxing](#)

Project Proposal Guidelines:
- [Businesswoman with Blank Paper](#)

Sample Data Champion Projects:
- [Businessman with a bulb in the head](#)