SAN DIEGO STATE
UNIVERSITY

Guide to Being a Data Champ

2019 - 2020

About This Guide

In this Data Champion's Program companion guide, Data Champions will find general information about the program, fall schedule, 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](#).

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Program
Introduction

Data Champions Program
2019-20

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) and by 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.
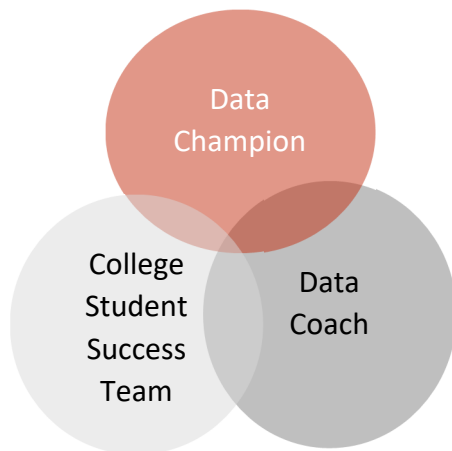
Data Champions. Each college will nominate one faculty, staff or administrator to serve as their Data Champion. This year selections should be made in order advance projects pursued in past years so 'alumni' Data Champions may make the best candidates. As in previous years, Data Champions will be assigned a coach who will assist Data Champions and their College Student Success with hands-on training, consultation on institutional data, and feedback.

New in 2019-20

Faculty Release Time for Data Champions

This year the Data Champion program will fund faculty release time (one course buyout) and graduate student stipends for selected Data Champion projects. These Data Champions will work with a Data Coach and ASIR's Statistical Modeling Group to address a student success issue that has impact at the campus level. Candidates will have access to institutional data and conduct in-depth analysis focused on action research. Funds are limited so colleges are encouraged to nominate candidates in Spring 2019.

Data Champions Basic Training

In order to support data-informed decision-making at SDSU more widely, the Data Champions program will include opportunities for faculty and staff at the departmental level to participate in data workshops. These events will be scheduled in fall and spring with priority registration given to departments scheduled for program review in 2020-21.

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 2019

- Attend mandatory Data Champion workshops and relevant optional workshops.
- Meet the deadlines for the program and those outlined in your project plan.
- Consult with CSST 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 final project proposal by late November.
- Begin project work during the fall term.

Spring 2020

- Attend mandatory Spring 2020 Data Champion Program workshops.
- Execute the proposed data project in Spring 2020.
- Present findings from data project at the final Spring 2020 Data Champions Program Poster Session 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 a bonus, professional development funding or release time for participation in the program. Incentives will be at the discretion of unit leadership.

2018-19 Final Projects

Team Advisers & Data Coaches

Summary:

Each Data Champion will be assigned a Team Adviser and will have access to a pool of Data Coaches who will help as outlined below. New in 2019-20 is the addition of faculty fellows who will be available to support Data Champions within their subject area expertise.

Primary Team Adviser Duties

- Collect any survey/participation/other data from team to be linked to ASIR data
- Facilitate development of custom data sets including linking external data to ASIR/SIMSR data
- Communicate regularly with teams about project to help move projects forward.
- Meet regularly with College Student Success teams.
- Answer questions, provide clarification
- Attend all Data Champion workshops and present information as needed
- Schedule meetings as necessary for technical issues
- Review results and provide input on presentation of findings (and share with coaches)

Data Champion 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 workshops
- Communicate/meet with Data Champions as necessary
- Attend all Data Champions workshops
- Review results and provide input on presentation

Data Champion Faculty Fellows:

- Provide insight to Data Champions for project development and execution relative to their professional expertise.
- Provide support for campus-wide data projects including Course Predictions and NSSE analysis

Fall 2019
Workshop Schedule

Workshop 1

MANDATORY	Friday, Sept 6
Interactive Sessions with: Jessica Nare & Sandy Kahn	11:15 AM-12:45 PM EBA 410 – Lunch Provided

Workshop 2

OPTIONAL	Friday, Oct 11
Hands-on training with Data Champion Data Set	11:15 AM-12:45 PM EBA 410 – Lunch Provided

Workshop 3

OPTIONAL	Friday, Nov 15
Hands-on training: NSSE & other data sources	11:15 AM-12:45 PM EBA 410 – Lunch Provided

DUE DATE

PROJECT PROPOSAL	Friday, Nov 22
Upload to Google Team Drive	

Workshop 4

MANDATORY	Friday, Dec 6
Updates & Sharing	11:15 AM-12:45 PM EBA 410 – Lunch Provided

Friday, Nov 22

Spring 2020
Workshop Schedule

Workshop 5

MANDATORY	Friday, Feb 7
TBD Working Lab	11:15 AM – 12:45 PM
	EBA 410 – Lunch Provided

Workshop 6

OPTIONAL	Friday, March 6
Special Guest : TBD Working Lab	11:15 AM – 12:45 PM
	EBA 410 – Lunch Provided

Workshop 7

MANDATORY	Friday, April 10
Lightning Rounds Working Lab	11:15 AM – 12:45 PM
	EBA 410 – Lunch Provided

Submit Posters

Posters Due	Monday, April 27
Upload to Google Team Drive	

Poster Session

POSTER SESSION – May 4
11:30 AM – 1:30 PM
Manchester Hall Entrance – Lunch provided

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 Freshmen 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 2014 Cohort = 47.6%.
6-Year FT-FTF Graduation Rate for Fall 2012 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 2016 Cohort = 54.8%.
4-Year FT-NUDT Graduation Rate for Fall 2014 Cohort = 88.1%.

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 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

Non-Grad

$$^4/_5 = 80\%$$

FALL 2019 SDSU FT-FTF Graduation Rate

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 not 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.

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%.

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

Fall 2019 CAL FT-FTF Graduation Rate

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.

Data Champion's Data Resource Vault

Source	Data Content & Type	LINK
ASIR	**General SDSU information** enrollment, demographic, and outcome. also includes an extensive data resource page!	**Analytic Studies and Institutional Research Website**
	Aggregated SDSU student dashboards of pathway from admissions to graduation by College & Department 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.	**Student Success Exploration and Analytics Dashboards**
	Local High School & Community College District Profile of Incoming SDSU students. 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	**District Profiles**
	Data Champions SDSU Student Level Dataset. To access the data, please complete the FERPA training and sign the electronic Confidentiality Agreement.	**Data Champions: Data Sharing Guide**
ESIT	**Individual SDSU Student Level Reports (APEX).** 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.	**Enrollment Services Data Center & APEX (SIMS/R) Reports**
CO	**CSU Student Success Dashboards** The Student Success dashboards highlight progress for Graduation Initiative 2025 and provide insight into historic graduation rate and equity gap trends. There is also a Faculty dashboard which delves into the backgrounds and academic patterns of students by major.	**CSU Student Success Dashboards**

	CSU Institutional data dashboards	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.	
Other Higher Ed Resources	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?].	Integrated Postsecondary Education System (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.	National Center for Education Statistics (NCES)
	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.	Education Trust
	CA Board of Education (CBEDS) – A rich resource of K-12 student data and statistics.	CA Board of Education (CBEDS)

Worksheet One
Contextualizing Student Success

Goals:
- Understand the Data Champion program expectations, goals, and deliverables.
- Understand the context and goals of the CO GI 2025 from an SDSU perspective, both at the university level and the unit level
- Connect with Data Champions across the University, College student success teams, and Data Coaches

Recommended Steps:
1. Review Graduation Initiative 2025 & Strategic Goals Guide.
2. Read articles below.
3. Answer probing questions below

[How Can California Produce More Graduates?](#) (Reading Time: Approx. 8 min)

Notes & Questions for Discussion:

> How does this reading help you understand why the Graduation Initiative 2025 was developed. How does your college fit into this plan and how can you help students in your college and at SDSU in earning their degree?

[Who Gets to Graduate?](#) (Reading Time: Approx. 30 min)

Notes & Questions for Discussion:

> Based on the reading, list some reasons why it's important that the goals of GI 2025 include reducing performance gaps among Pell, URM and first-generation students?
>
> In your campus role, what steps can you take to help students in under-represented populations succeed at the same level as advantaged students?
> Get DCs to see value of change that simple changes can have a big effect and that it started with one professor.

[Are you First Generation?](#) (Reading Time: Approx. 10 min)

Notes & Questions for Discussion:

> How does the way in which we define data affect how we measure where we are and our progress? What issues do you see with having different definitions? Name a few instances where a definition for a common label has different definitions. What steps can you take to ensure that information is properly interpreted?

Worksheet Two

Identifying Challenges Using Data

Goals:

The goal of this exercises 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 that your college faces. Identify <u>top three</u> 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?	

Project
Development
Resources

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
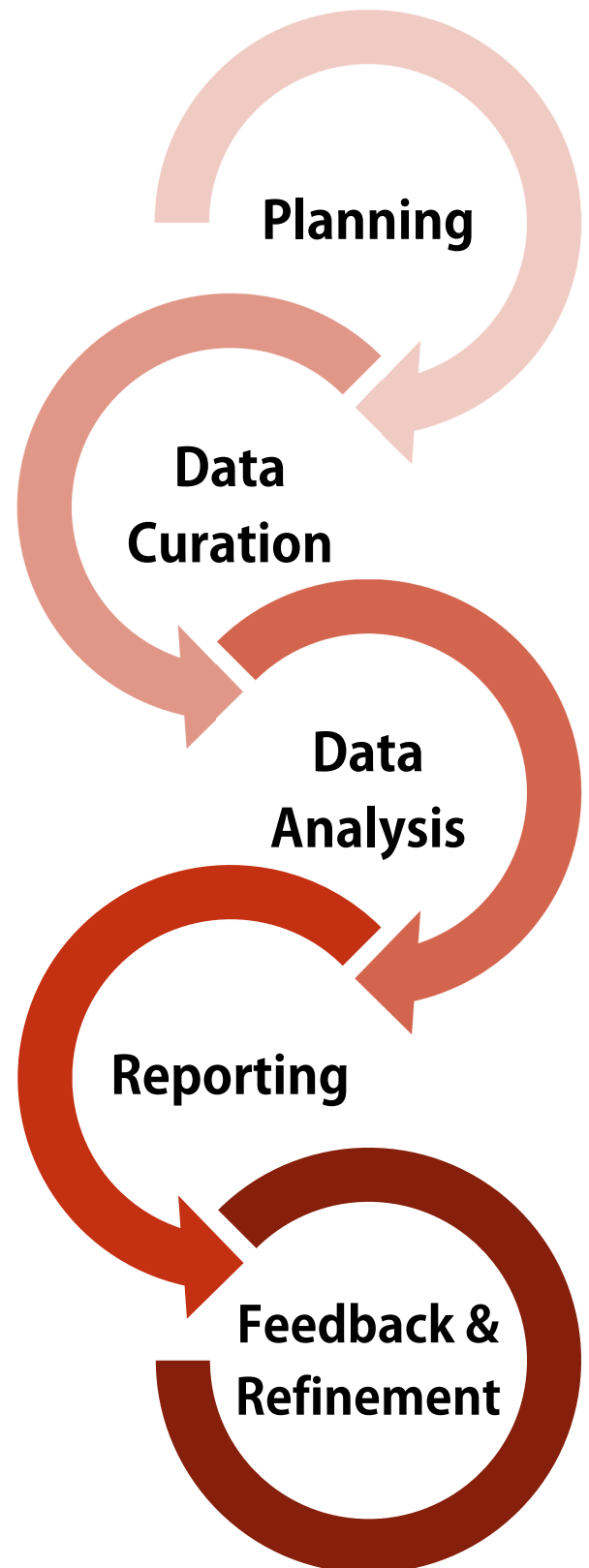- Organize scripts and save the query and output

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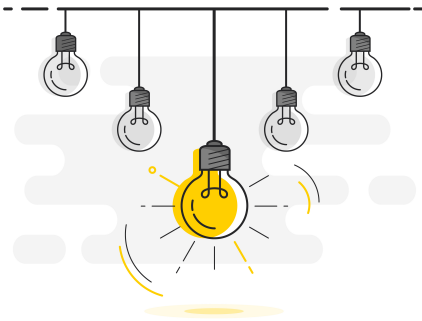
Context matters! A great analyst always takes a project's context into consideration. Understanding stakeholders, knowing your audience, and familiarizing yourself with your topic of interest as much as possible will ultimately help you determine the best plan of action for your particular project.

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](#)!

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.

Acknowledgements

Attributions

Images Designed by Shutterstock and freepik and modified for guide.

Cover:
- [Champions](#)

Program Goals and Objectives:
- [Target](#)

Data Champion Schedule:
- [Calendar and clock](#)

Illustrated Guide to Understanding Graduation Rates:
- [Students](#)
- [Graduates](#)

Project Workflow Guide:
- [Lightbulbs](#)
- [Businesswoman character relaxing](#)

Project Proposal Guidelines:
- [Man with blank paper](#)