

Storytelling through CSI Data BETH SWARTZ

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Fitchburg State University

Today's Story■

Chapter One: Chapter Two: Chapter Three: Chapter Four:

Context - Who Am I? **Getting the Data Analyzing the Data Telling A Story**

Chapter One: Who Am I?

A Brief Description of TRIO SSS, Fitchburg State, and Me

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First-Generation

Income-Eligible

Student with Disability



A Brief Description of TRIO SSS, Fitchburg State, and Me

Public University

Serves ~6,000 undergrad and grad

TRIO SSS grant since 1997

Using CSI since 2008



A Brief Description of TRIO SS\$, Fitchburg State, and Me

Director of TRIO SSS

Would have qualified for TRIO SSS an undergrad

Huge "Data Geek"

"Effective use of data is our best tool to retain and graduate students"



Why do I say "Data is our best tool?"

You need data to tell a story

Chapter Two: Getting the Data

You need to know your subject

Data **enhances** our **knowledge** of **students**



2021 National First-Year Students and Their Motivation to Complete College Report

A shuly of the challenges and opportunities for completing a college degree, based on an analysis of more than 85,000 first-year college shuderts.



...AND

Universities using data is a reasonable expectation our students have



A study of the challenges and reportunities for completing a college degree, based on an analysis of more than 85,000 first-year college students



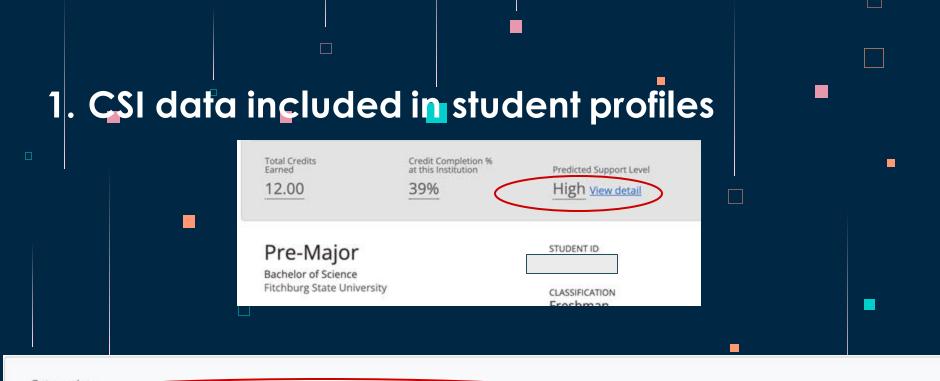




If we don't **know** our students,
how are we going to **customize** our **services** to ensure
student **retention** and **graduation** rates?

How can we tell their story?

There are **3 ways** CSI data can tell a story



Categories

CSI Academic Difficulty, CSI Dropout Proneness, CSI Educational Stress, Day Students, First Generation Students, HS GPA: 2.76 - 3.00, In-State Residency, MINOR: Criminal Justice, Non-Hispanic, Non-transfer Students, SAT Math-NEW 530-569, SAT R&W-NEW 501-559

2. Formatted CSI reports from RNL

Motivational Assessment Student Background Information Verv Perc. Verv **High School Academics** Rank Low High Academic Motivation Senior Year GPA B Average Study Habits 62 Reading Interests 48 **Family Background** Verbal and Writing Confidence 67 Math and Science Confidence 46 Multiethnic or Other Racial/Ethnic Origin Commitment to College 80 Interactions with Previous 81 Parent1's/Guardian's Education High School Diploma Teachers Parent2's/Guardian's Education Some College **General Coping** College Experience Social Engagement 37 Family Support 99 Decision to Enroll Many Months Before Capacity for Tolerance 59 Career Plans 77 Degree Sought a professional degree Financial Security Plans to Work 21-30 Hours per Week Receptivity to Support Services Grouping Fields* Academic Assistance FYE Personal Counseling 18 Social Engagement 12 PIF N Career Guidance Financial Guidance Internal Validity Excellent Personal Success Plan for Notice The strength of each recommendation is indicated by its priority score (0 to 3.3 = low, 3.4 to 6.6 = medium, 6.7 to 10.0 = high): Students may request that their report be removed from your file at anytime. Get help in selecting an academic program 5.6 Get help in obtaining a scholarship 5.4 Get help with exam skills 5.4 Get help with reading skills 5.0

5.0

Screenshot

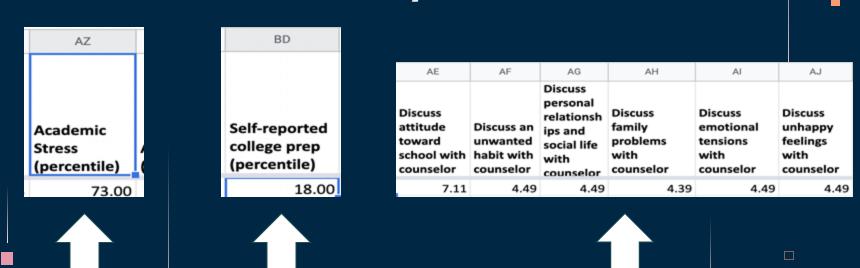
Get help with study habits

Get help with basic math skills

3. Raw Data CSI reports from RNL

Get help with exam skills	Get help with study habits	Get help with writing skills	Get help with basic math skills	Get tutoring in selected areas	Get help with reading skills	Discuss attitude toward school with counselor	habit with	social life	Discuss family problems with counselor	
5.78	5.30	5.75	5.27	4.15	4.17	3.84	3.81	4.42		4.39
5.70	5.70	5.07	4.28	4.28	3.27	5.57	5.00	4.31		4.19
8.71	7.33	7.28	7.76	7.76	8.71	7.82	6.78	9.05		6.25
5.39	5.39	4.86	4.86	4.86	4.81	5.40	4.09	4.09		4.25
6.36	6.71	6.49	6.49	6.15	7.04	6.83	5.24	6.34		7.01
6.83	7.73	8.15	7.73	6.83	6.83	4.23	6.02	4.22		3.69
4.37	3.50	6.23	5.66	5.04	5.72	5.44	7.83	5.40		5.50
6.40	5.11	5.59	5.12	6.42	6.00	6.80	6.83	7.19		6.12
7.86	8.32	7.87	7.87	7.87	8.32	8.07	7.65	8.09		8.14
7.33	6.85	5.74	5.11	6.30	6.85	6.40	5.83	6.37		5.05

The raw data enables more in-depth analysis



*While TRIO \$SS DOES NOT claim to be counselors, many students do not differentiate between "advisors" and "counselors" when it comes to discussing personal issues

For incoming **first-year students**, we combine CSI data with measurements:

1. High School GPA

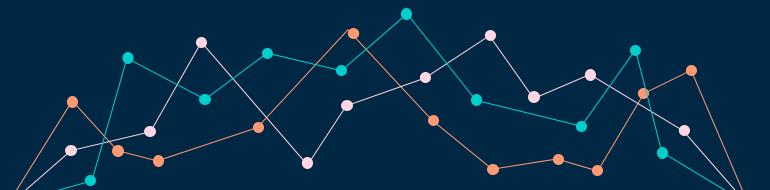
2. Any **testing scores** available (such as Accuplacer)

For **current students** seeking support from TRIO SSS, we combine CSI data with:

- 1. Current GPA
- 2. # of Semesters Completed (Retention)

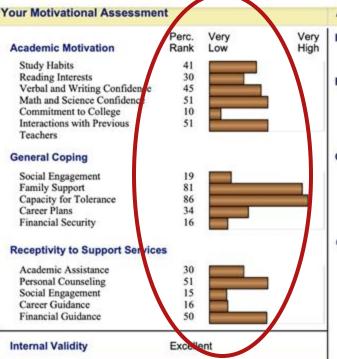
For all populations, we combine CSI data with demographics:

- 1. Gender Identity
- 2. Race / Ethnicity
- 3. First-Generation status



Chapter Three: Analyzing the Data

What does the data tell you?



Your Personal Success Plan

The strength of your recommendations is indicated by its priority score(0 to 3.3 = low, 3.4 to 6.6 = medium, 6.7 to 10.0 = high):

Get help in obtaining a scholarship	8.5
Get help with exam skills	7.6
Get help in obtaining a loan	7.5
Discuss attitude toward school with counselor	7.1
Get tutoring in selected areas	7.1
Get advice from an experienced student	7.1

About You

High School Academics

Senior Year GPA B+ Average

Family Background

Racial/Ethnic Origin Multiethnic or Other
Parentl's/Guardian's Education High School Diploma
Parent2's/Guardian's Education Some College

College Experience

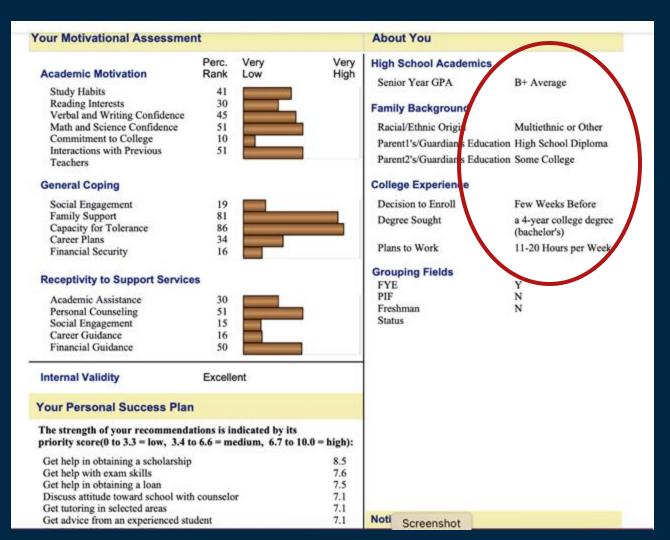
Decision to Enroll	Few Weeks Before		
Degree Sought	a 4-year college degree (bachelor's)		
Plans to Work	11-20 Hours per Week		

Grouping Fields

FYE	,
PIF	1
Freshman	1
Status	

Screenshot

Sample Student Response



Sample Student Demographics

Your Motivational Assessment **About You** Very Very Perc. **High School Academics** Academic Motivation Rank Low High B+ Average Senior Year GPA Study Habits 41 Reading Interests 30 **Family Background** 45 Verbal and Writing Confidence Math and Science Confidence 51 Racial/Ethnic Origin Multiethnic or Other Commitment to College 10 Parentl's/Guardian's Education High School Diploma Interactions with Previous 51 Parent2's/Guardian's Education Some College Teachers College Experience **General Coping** Social Engagement Decision to Enroll Few Weeks Before Family Support 81 Degree Sought a 4-year college degree Capacity for Tolerance 86 (bachelor's) Career Plans 34 Plans to Work 11-20 Hours per Week Financial Security **Grouping Fields** Receptivity to Support Services FYE PIF N Academic Assistance Freshman Personal Counseling 51 Status Social Engagement 15 Career Guidance 16 50 Financial Guidance Internal Validity Excellent our Personal Success Plan The strength of your recommendations is indicated by its priority score(0 to 3.3 = low, 3.4 to 6.6 = medium, 6.7 to 10.0 = high): Get help in obtaining a scholarship 8.5 Get help with exam skills 7.6 7.5 Get help in obtaining a loan Discuss attitude toward school with counselor 7.1 Get tutoring in selected areas 7.1 7.1 Get advice from an experienced student Screenshot

Sample Student Success Plan

The "Success Plan" is an "Advising Plan" for individual students - are they engaging in these behaviors?

Your Personal Success Plan

The strength of your recommendations is indicated by its priority score(0 to 3.3 = low, 3.4 to 6.6 = medium, 6.7 to 10.0 = high):

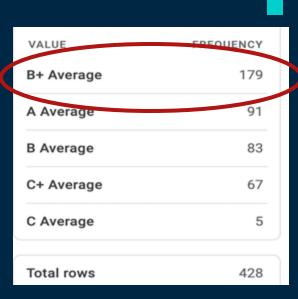
Get help in obtaining a scholarship	8.5
Get help with exam skills	7.6
Get help in obtaining a loan	7.5
Discuss attitude toward school with counselor	7.1
Get tutoring in selected areas	7.1
Get advice from an experienced student	7.1

We then go from the individual, and expand outward to examine broader populations and make predictions

Comparing One to Many

High School Academics
Senior Year GPA
B+ Average





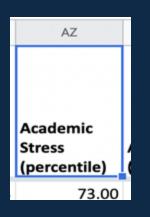
Comparing One to Many All First-Generation

Family Background

Racial/Ethnic Origin Multiethnic or Other Parentl's/Guardian's Education High School Diploma Parent2's/Guardian's Education Some College

Some College	Some College	001	Multiethnic or	O B Average	Few Weeks Before
Some College	Some College		Multiethnic or	D B Average	Few Weeks Before
High School Dipl	Some College		Multiethnic or	O B+ Average	Many Months Before
Some College	High School Dipl	001	Multiethnic or	O B+ Average	Few Weeks Before
High School Dipl	Some College		Multiethnic or	O B+ Average	Many Months Before
Some High Scho	Some College		Multiethnic or	O C+ Average	Many Months Before
High School Dipl	High School Dipl	oma	Multiethnic or	O C+ Average	Many Months Before
Some High Scho	Some High Scho	001	Multiethnic or	C+ Average	Many Months Before

From earlier analysis this student was an outlier - are they still an outlier within their population?





AE	AF	AG	AH	Al	AJ
Discuss attitude toward school with counselor	Discuss an unwanted habit with counselor	Discuss personal relationsh ips and social life with counselor	Discuss family problems with counselor	Discuss emotional tensions with counselor	Discuss unhappy feelings with counselor
7.11	4.49	4.49	4.39	4.49	4.49







Academic Stress (percentile)

22.00

89.00

5.00

73.00

81.00

71.00

98.00

74.00



Average score 64.13%

Academic Stress (percentile)

22.00

89.00

5.00

73.00

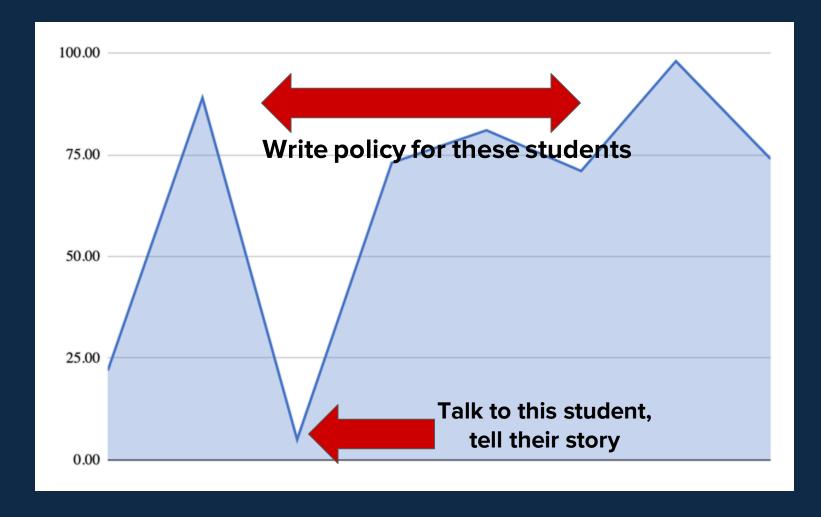
81.00

71.00

98.00

74.00





Self-reported college prep (percentile)

18.00

18.00

77.00

18.00

61.00

18.00

18.00

61.00



Average score 36.13%

Self-reported college prep (percentile)

18.00

18.00

77.00

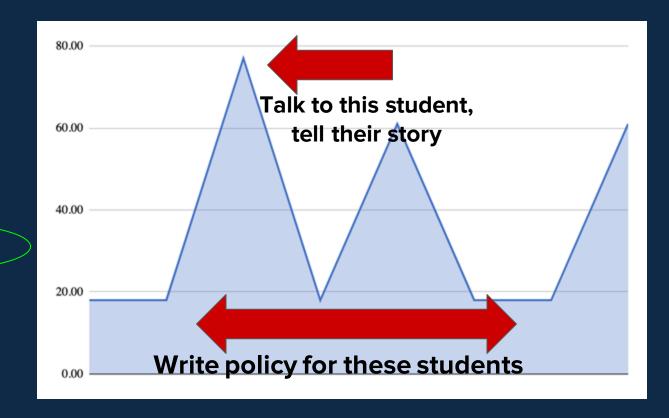
18.00

61.00

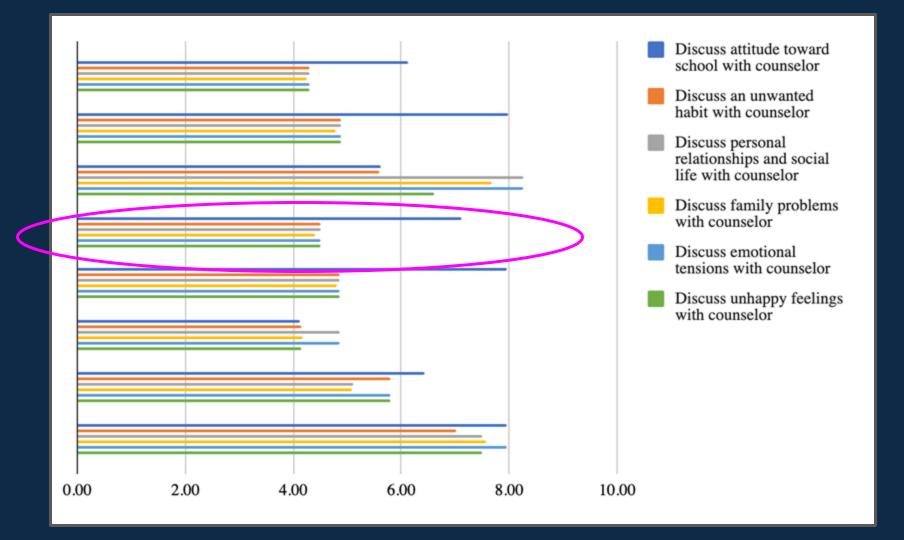
18.00

18.00

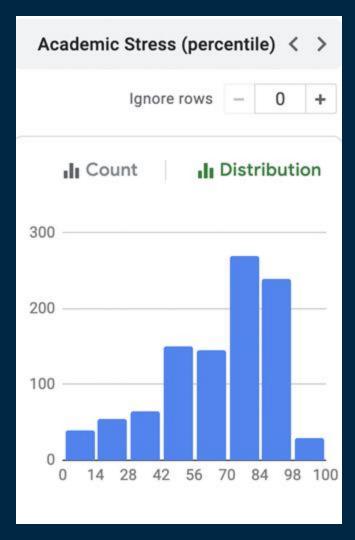
61.00



Discuss attitude toward school with counselor	Discuss an unwanted habit with counselor	Discuss personal relationships and social life with counselor	Discuss family problems with counselor	Discuss emotional tensions with counselor	Discuss unhappy feelings with counselor
6.12	4.31	4.31	4.24	4.31	4.31
7.97	4.88	4.88	4.78	4.88	4.88
5.61	5.60	8.27	7.67	8.27	6.61
7.11	4.49	4.49	4.39	4.49	4.49
7.96	4.87	4.87	4.80	4.87	4.87
4.12	4.14	4.87	4.18	4.87	4.14
6.43	5.80	5.10	5.08	5.80	5.80
7.96	7.03	7.50	7.58	7.95	7.50



This particular student identifies as "**Male**" What happens if I just look at other males?

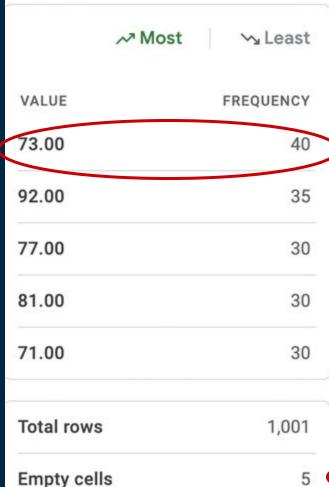


All Males

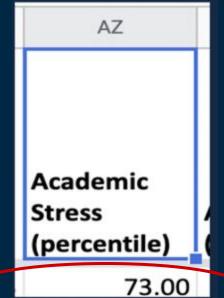
Average 65.84

Median 71





All Males



Academic Stress (percentile) < > Ignore rows .I Count . Distribution 2.0 1.5 1.0 0.5

Just First-Generation Males

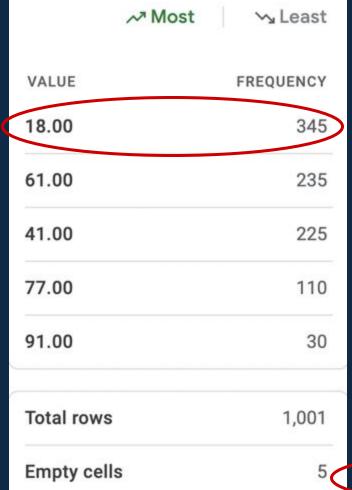
Consider policy for these students

Self-reported college prep (... < > Ignore rows .I Count .II Distribution 400 300 200 100 41 55 69 82 96 100

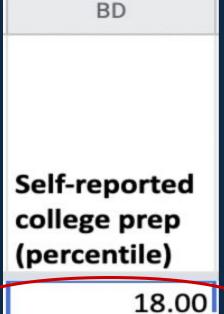
All Males

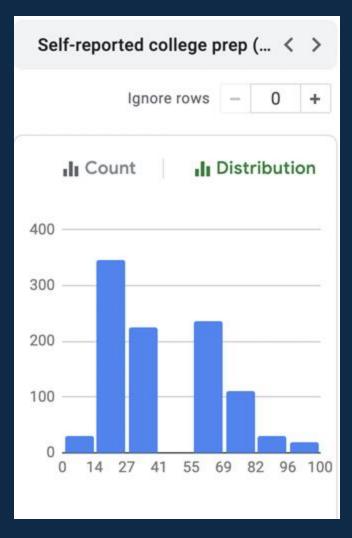
Average	43.26
Median	41





All Males







Just First-Gen Males

Consider policy for these students

Talk to these students, get their stories

Chapter Four: Telling A Story

An Example of Storytelling Using CSI Data



Your Motivational Assessment



General Coping

Social Engagement	82	
Family Support	6	
Capacity for Tolerance	99	
Career Plans	64	
Financial Security	67	955

Receptivity to Support Services

Academic Assistance	48
Personal Counseling	75
Social Engagement	1
Career Guidance	1
Filiancial Guidance	34

About You

High School Academics

Senior Year GPA

A Average

Family Background

Racial/Ethnic Origin Hispanic or Latino

Parent1's/Guardian's Education Professional Parent2's/Guardian's Education Professional

College Experience

Decision to Enroll	Many Months Before
Degree Sought	a professional degree
Plans to Work	1-10 Hours per Week

Grouping Fields

FYE	Y
PIF	N
Freshman	Y
Status	

At midterm failing in 3 of 5 classes

High School Academics

Senior Year GPA

A Average

Student revealed that she felt **immense pressure** from her mom to be in the nursing major

Parent1's/Guardian's Education Professional

Parent2's/Guardian's Education Professional

She was terribly unhappy in all of her classes but had not sought help

Receptivity to Support Services

Academic Assistance

48

TRIO SSS advisor discovered she wanted to be a PSY major with a concentration in Clinical Therapy

Social Engagement
Career Guidance

TRIO SSS advisor role-played conversations the student needed to have with her mom

Family Support

(



The student was retained.

She is now a Psychology major

Current GPA 3.11

Using CSI data has changed how TRIO SSS provides student support.

It has changed how we tell our students' stories

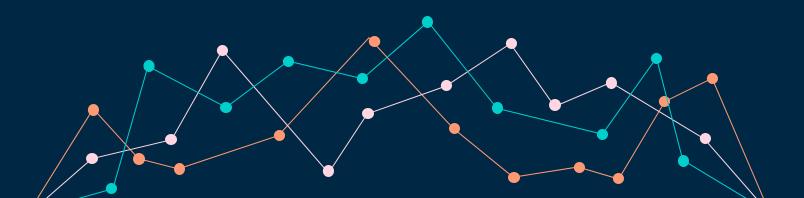
1. We look up CSI scores before accepting students into TRIO SSS

(not to "choose" successful students, but to have **better conversations**)

2. When students are not engaging in **behaviors** they indicated high receptivity to do, we ask why

3. We are able to better understand what services our students will need before there is a problem

Our students expect us to know them, CSI data enables us to meet that expectation



My grant funding requires me to know my students' stories, Using CSI data enables me to have that knowledge





slidesgo