



**MONTCLAIR STATE**  
UNIVERSITY

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## Leveraging ERP Data to Make Informed Decisions

*A rapidly changing re-enrollment process*



## Expertise



- Advanced data analytics & data science
- Data engineering & integration
- Data governance & security



## Methodology

- Holistic view of student lifecycle
- Higher ed. specific data models to drive rapid time to value



## Drive Business Outcomes



Pilot to demonstrate business outcomes

## Approach



- Top-down definition of student lifecycle with bottom-up understanding of data
- Engage early with stakeholder discovery sessions
- Flexible frameworks



## Adoption

- Build internal trust
- Customized methods
- Metrics to drive success



**Montclair State is an R2: Doctoral University - High Research Activity, as designated by the Carnegie Classification of Institutions of Higher Education**

**We are an NCAA Division III school**

**Enrollment: 21,000 (as of fall 2020)**

**We are considered 12 miles from New York City and have two train stations on campus**

**We have 300 programs of study and 10 schools and colleges**

# Technology



**Ellucian Banner – Student Information System**  
**Ellucian Banner ODS – Reporting & analytics environment**



Ellucian Degree Works™

**Ellucian Degree Works - Degree audit and academic planning solution**



**EAB Navigate – Student Advising and Analytics Platform**



**Tableau – Business intelligence dashboards, data sharing and visualization**



**CTI Data – Conducted stakeholder sessions to drive requirements – Performed the initial Tableau Server installation and configuration**

# New Re-Enrollment Process

## Start

- Re-enrollment process begins at the end of the open registration period every semester where we work with **students who have not enrolled** in courses for the next term

## Before

- Before Tableau, this was a **manual process** which relied on Cognos reports and Excel outputs

## Leverage Tableau

- In Fall 2019, Montclair State **began leveraging Tableau** in combination with EAB Navigate to support the re-enrollment process

## Outcomes

- Resulted in more automation, **increased efficiencies**, time savings and a streamlined approach

# Tableau Dashboards

## Daily Snapshots

- Store **daily snapshots** of students registered within the last two primary terms
- Info - college, major, and other student attributes



## Organize Data

- Use **Tableau to organize** the data into different views
- Make data **available to advisors** in a consistent manner

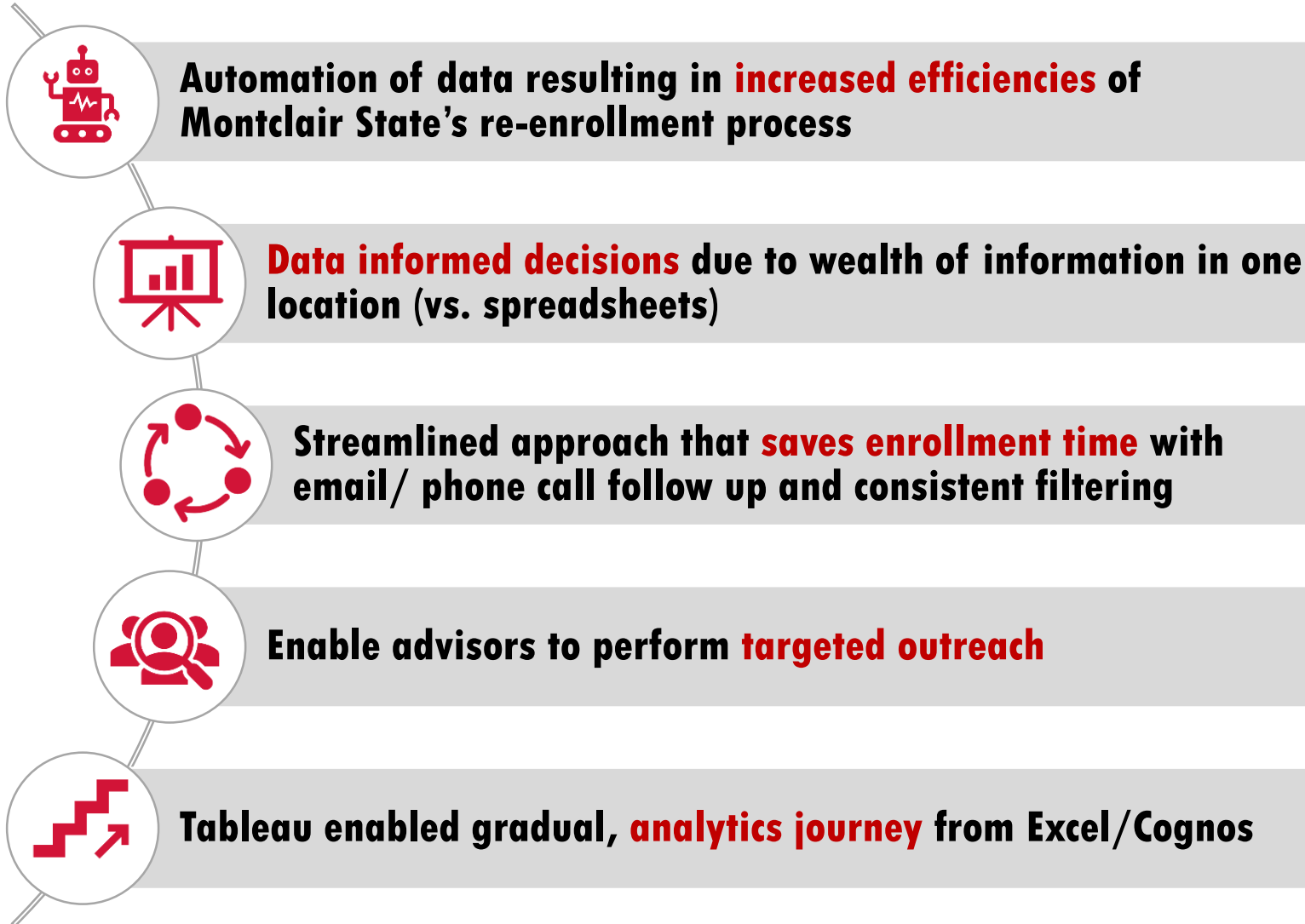


## Advisors

- Advisors **filter** the dashboard to narrow down populations of non-registered students
- Create **custom outreach** campaigns in EAB Navigate to encourage enrollment



# Outcomes



# Dashboards





Eligibility Current	Academic Per... 202120	Last Enr/A... 202040	Prev Stud... UG	Primary...	College... (A...)	Department... (All)	Program & M... (All)	Concentration (All)	Primary Advisor (All)	Student Classi... (All)	Curr Student ... (All)	New Stude... (All)	Gender (All)	Ethnicity (All)	Holds? (All)	Transcript (All)
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### Registration Status

Status	College of the Arts	Education and Hu..	Feliciano School ..	Humanities and S..	School of Nursing	Science and Mat..	University College	Grand Total
Registered	1,588	1,324	1,535	2,222	123	1,028	258	8,078
Grad App - Missing Requirements 202110	17	2	10	11		11		51
Grad App - Missing Requirements 202120	4	3	1	5				13
Grad App - Received 202110	13		1	8	2	6		30
Grad App - Received 202120	7	13	6	12		3		41
Graduating 202110	52	115	127	178		59		531
No Grad App: >= 98% Complete	3	16	19	37		5		80
Not Registered: Has Reg Holds	107	79	162	231	2	84	106	771
Not Registered: No Reg Holds	193	138	251	362	9	164	140	1,257
<b>Grand Total</b>	<b>1,984</b>	<b>1,690</b>	<b>2,112</b>	<b>3,066</b>	<b>136</b>	<b>1,360</b>	<b>504</b>	<b>10,852</b>



Test data for illustration purposes only

				FT	HT	Total
AR	SO	Not Registered: Has Reg Holds	Immunization Hold	1		1
			Large Balance Financial Hold	20		20
			Large Balance Financial Hold, Transcript Hold	3		3
			Parking Fine	1		1
			Transcript Hold	3	1	4
Not Registered: No Reg ..			43	3	46	
Registered		Null		513	11	524
			Large Balance Financial Hold	7		7
			Parking Fine	3	1	4
FR		Not Registered: Has Reg Holds	Immunization Hold	2		2

VET (All)
EOF (All)
PSP (All)
HON (All)
PLP (All)
Adult (All)
KIPP (All)
SRC (All)
Future Financial ... (All)
Cumulative GPA 0.000 4.000 <input type="text"/>
Advisor Name List (All)
Type in Advi... <input type="text"/>

# Student Detail Drill Down

The “View Students” link enables advisors to view detailed student records behind the numbers on the dashboard

Eligibility  
Current

Academic Per...  
202120

Last Enrl/A...  
202040

Prev Stud...  
UG

Primar...  
Y

College...  
(A...)

Department...  
(All)

Program & M...  
(All)

Concentration  
(All)

Primary Advisor  
(All)

Student  
(All)

Registration Status
Test data for illustration purposes only

Status	College of the Arts		Education and Hu..		Feliciano School ..		Humanities and S..		Sc
	Distinct count o..	% of Total D..	Distinct count o..	% of Total D..	Distinct count ..	% of Total D..	Distinct count o..	% of Total D..	
Registered	1,588	80%	1,324	78%	1,535	73%	2,222	72%	
Grad App - Missing Requirements 202110	17								
Grad App - Missing Requirements 202120	4								
Grad App - Received 202110	13								
Grad App - Received 202120	7								
Graduating 202110									
No Grad App: >= 98% Complete	3	0%	16	1%	19	1%	37	1%	
Not Registered: Has Reg Holds	107	5%	79	5%	162	8%	231	8%	

✓ Keep Only
⊗ Exclude
☰

College Desc: College of the Arts

Load Date: 11/12/2020 7:45:05 AM

Status: Grad App - Missing Requirements 202110

Distinct count of ID: 17

[View Students](#)



Eligibility Current ▾	Academic P... 202120 ▾	Last Enrl/Ad... 202040 ▾	Prev Student Le... UG ▾	Primary ... Y ▾	College Desc (All) ▾	Department Desc (All) ▾	Program & Major (All) ▾	Concentration (All) ▾	Primary Advisor (All) ▾	Registered? (All) ▾	Advising Hold (All) ▾	Financial Hold (All) ▾
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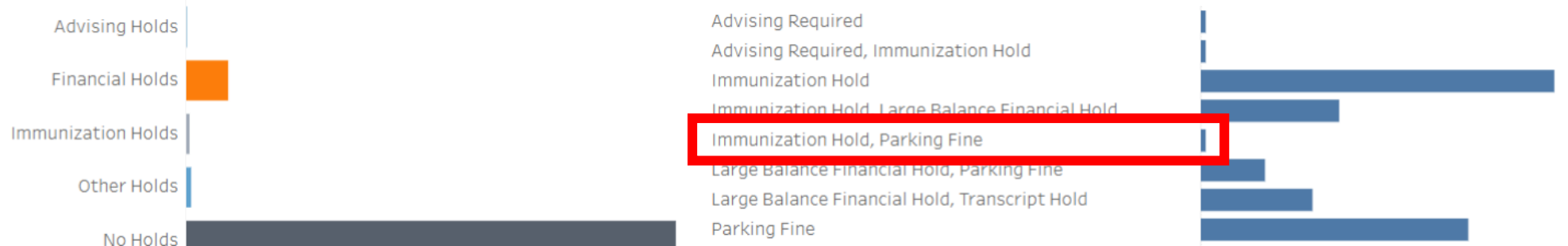
**Students by Hold Status and College**

Test data for illustration purposes only

Holds?	College of the Arts		Education and Human Services		Feliciano School of Business		Humanities and Social Sciences		School of Nursing		Science and Mathematics		University College		Grand Total	
	No	%	No	%	No	%	No	%	No	%	No	%	No	%	No	%
No	1,827	92%	1,564	93%	1,913	91%	2,766	90%	131	96%	1,240	91%	393	78%	<b>9,834</b>	<b>91%</b>
Yes	157	8%	126	7%	199	9%	300	10%	5	4%	120	9%	111	22%	<b>1,018</b>	<b>9%</b>
<b>Total</b>	<b>1,984</b>	<b>100%</b>	<b>1,690</b>	<b>100%</b>	<b>2,112</b>	<b>100%</b>	<b>3,066</b>	<b>100%</b>	<b>136</b>	<b>100%</b>	<b>1,360</b>	<b>100%</b>	<b>504</b>	<b>100%</b>	<b>10,852</b>	<b>100%</b>

**Holds by Student Class**

	FR		SO		JR		SR	
	No	Yes	No	Yes	No	Yes	No	Yes
College of the Arts	90	32	570	40	599	52	570	33
Education and Human Ser..	58	14	400	27	493	32	617	53
Feliciano School of Busine..	105	22	524	47	642	72	645	58
Humanities and Social Sci..	146	41	791	76	987	100	846	83
School of Nursing	1		50		33	1	47	4
Science and Mathematics	85	20	354	30	359	37	443	33
University College	185	67	208	43		1		
<b>Grand Total</b>	<b>670</b>	<b>196</b>	<b>2,897</b>	<b>263</b>	<b>3,113</b>	<b>295</b>	<b>3,168</b>	<b>264</b>



- Parking Hold (All) ▾
- Immunization Hold (All) ▾
- Delinquent Payment Plan N ▾
- Small Balance Can Regi... (All) ▾
- EOF (All) ▾
- VET (All) ▾
- Adult (All) ▾
- KIPP (All) ▾
- SRC (All) ▾
- Future Financial Hold (All) ▾
- Advisor Name List (All) ▾
- Type in Advisor Name


**Remaining Non Registered Students**
**Test data for illustration purposes only**

	Eligible to Register	Registered	Remaining Not Registered	Not Registered No Holds	Decrease in Remaining Not Registered from Prev Week
<b>November 12, 2020</b>	10,852	8,078	2,774	1,926	-241
College of the Arts	1,984	1,588	396	280	-34
Education and Human Services	1,690	1,324	366	266	-31
Feliciano School of Business	2,112	1,535	577	403	-39
Humanities and Social Sciences	3,066	2,222	844	584	-92
School of Nursing	136	123	13	11	-2
Science and Mathematics	1,360	1,028	332	242	-14
University College	504	258	246	140	-29

Eligibility 
  
 Academic Period 
  
 Last Enrl/Admit Term 
  
 Prev Studen... 
  
 Primary Pro... 
  
 College Desc 
  
 Departmen... 
  
 Program & ... 
  
 Concentrati... 
  
 Prior Term ... 
  
 Curr Term S... 
  
 Gender 
  
 Ethnicity

**Spring 2021 vs Spring 2020 Registration Counts (cumulative counts by day from the first day of registration, excluding weekends)**

	1		2		3		4		5		11/13/2020
	11/6/2019	10/5/2020	11/7/2019	10/6/2020	11/8/2019	10/7/2020	11/11/2019	10/8/2020	11/12/2019	10/9/2020	
College of the Arts	95	189	339	533	631	916	843	1,282	912	1,374	912
Education and Human Services	182	189	414	558	618	894	764	1,150	821	1,206	821
Feliciano School of Business	131	194	371	519	652	894	847	1,195	918	1,264	918
Humanities and Social Sciences	137	254	376	632	734	1,156	979	1,625	1,052	1,733	1,052
School of Nursing	6	49	11	81	25	108	37	112	37	113	37
Science and Mathematics	96	177	260	449	447	682	573	896	629	961	629
University College	23	43	25	45	26	48	122	171	205	251	205
<b>Total</b>	<b>671</b>	<b>1,095</b>	<b>1,796</b>	<b>2,817</b>	<b>3,134</b>	<b>4,697</b>	<b>4,165</b>	<b>6,431</b>	<b>4,574</b>	<b>6,902</b>	<b>4,574</b>

# Wrap Up

- **Increased efficiency in the re-enrollment process with automation**
- **Enabled data-informed decisions**
- **Flexibility in re-enrollment process with pandemic**
- **Next steps**
  - **Bring data from Navigate into the dashboard**
  - **Provide a feedback loop, showing outreach efforts made by advisors**



# Contacts

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**Questions?**