Next Generation Enrollment: Using Environmental Factors to Increase Equity & Access

USU, CADE, & CSA 2018 Joint Summer Meeting
Future Admissions Tools and Models

Goals and approach

Overarching goals:
• Deliver tangible value to the admissions and scholarship community, through thought leadership, new practices, and new tools that advance the work and outcomes of the profession
• Improve the practice of admissions to expand student access and success

Project approach:
• Partner deeply with colleges and scholarship providers
• Deliver practical research that guides action; and
• Identify and share best practices and deliver tools that improve practice
Future Admissions Tools and Models

“Help us identify a student’s personal qualities that contribute to success and help us to meet our mission”
- Leadership
- Persistence
- Community Involvement

“Help us better assess and incorporate course rigor and GPA”
- High School GPA
- Course Pattern
- Standardized Tests
- Peer Achievement and Class Rank

“Help us identify new ways to measure and evaluate context”
- Adversity
- Opportunity
- Family & Neighborhood Environment
- SES/Resources

“Achievement and Rigor”

Non-Academic Factors

Process Effectiveness and Efficiency

Environmental Context

“Help us ensure we are designing and implementing our process fairly and consistently, and that we are leveraging new technology and techniques to improve efficiency”
- Targeting depth & intensity of individualized review
- Evaluating outcomes and efficacy
- Improving efficiency through technology

Applicant
Enrollment Leaders Asked for Better Contextual Information

We heard a need for better and more systematic information about context

• “We think about what a student has accomplished within the context of the opportunities and challenges he or she has faced.”

• “We have been trying to collect Census data but it’s taking us a long time/we lack the staff or systems to build this.”

• “We are looking for better information about context from high schools we know less well.”

• “We know that there are opportunity gaps, but we don’t always know that a student has faced them.”

• “We have some data, but need national benchmarks”
Environmental Context

**A Conceptual Model**

### Contextualize a student’s academic accomplishment

#### Scores in Context

- SAT Scores
  - Range scores for graduates at the high school
  - Averages for students enrolling in college
  - Share of students taking the SAT

- AP Opportunity
  - AP course availability
  - AP participation
  - Average number of AP exams taken at the high school
  - Average AP score

### Contextualize where a student lives and learns

#### Neighborhood and High School Adversity Measures

- College-going behavior
- Crime risk (neighborhood only)
- Family stability
- Educational attainment
- Housing stability
- Median family income
Measuring Adversity

Methodology

- **Overall Adversity**: A measure of the extent to which a student may have faced obstacles or challenges on their road to college

- **Validated and Tested**
  - Expert Review Panel
  - Demographic Attributes
  - Outcomes Analysis
  - Pilot Use with Institutions

1. Gather Context Data from multiple sources

   - **National Data**
     - American Community Survey
     - Median Income
     - Single Parent
     - Education Level, ESL
     - Housing statistics
     - FBI Crime Statistics

   - **College Board Data**
     - College-going behavior
     - SAT achievement
     - % Free and Reduce Lunch
     - AP Opportunity
     - Educational Neighborhoods

2. Combine appropriate measures to generate:
   - **Neighborhood adversity** values at the Census Tract Level
   - **High School adversity** values for each high school

3. Calculate **Overall Adversity** for each student
   A student is tagged with the adversity measures for their high school and neighborhood, which are averaged to create a nationally normed measure between 0 and 100.

   ![Adversity Scale](chart.png)

   - Less Adverse
   - National Average
   - More Adverse

   - 0
   - 50
   - 100

   **Validated and Tested**
   - Expert Review Panel
   - Demographic Attributes
   - Outcomes Analysis
   - Pilot Use with Institutions
# Environmental Context Dashboard

## Web Interface for Operational Pilot

<table>
<thead>
<tr>
<th>About the Student</th>
<th>About the High School</th>
<th>AP Opportunity at the High School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student ID</td>
<td>Typical Senior Class Size</td>
<td>426</td>
</tr>
<tr>
<td>Home City</td>
<td>Typical SAT of Colleges Attended</td>
<td>1084</td>
</tr>
<tr>
<td>Rural</td>
<td>College Preparation</td>
<td>42</td>
</tr>
<tr>
<td>High School</td>
<td>Percent Free/Reduced Lunch</td>
<td>45%</td>
</tr>
</tbody>
</table>
Environmental Context Dashboard

Web Interface for Operational Pilot

### Student's Scores in Context

<table>
<thead>
<tr>
<th>Test Source</th>
<th>EBRW</th>
<th>Math</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAT</td>
<td>600</td>
<td>600</td>
<td>1200</td>
</tr>
</tbody>
</table>

High School Score Data

<table>
<thead>
<tr>
<th>Percentile</th>
<th>EBRW</th>
<th>Math</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>25th Percentile</td>
<td>480</td>
<td>460</td>
<td>950</td>
</tr>
<tr>
<td>50th Percentile</td>
<td>550</td>
<td>520</td>
<td>1070</td>
</tr>
<tr>
<td>75th Percentile</td>
<td>610</td>
<td>580</td>
<td>1190</td>
</tr>
<tr>
<td>Typical % of Seniors Taking SAT</td>
<td></td>
<td></td>
<td>58%</td>
</tr>
</tbody>
</table>

### Student's Total Score Relative to Others

- **Student's SAT COMP**: 1200
- **HS 25%**: 950
- **HS 50%**: 1070
- **HS 75%**: 1190

![Graph showing student scores and percentiles]
Environmental Context Dashboard

Web Interface for Operational Pilot
Environmental Context

Summary of Relationship Between Adversity and Attributes Relevant to Admissions

• Analysis has shown that the overall adversity measure is related to factors that are important to admissions

✓ Geography: The geographic distribution of adversity aligns with known national propensities, and locally is consistent with the geographic knowledge and expectations of admissions professionals

✓ Income and SES: Students with high levels of adversity tend to also be from low income and 1st gen families

✓ Academic Preparation: Students with high levels of adversity tend to be less well prepared academically and less engaged in college oriented behaviors

✓ College Aspirations and Access: Students with high levels of adversity tend to have lower academic aspirations and are less likely to attend college, or to graduate from college

✓ Diversity: While the ECD does not incorporate race, students with high levels of adversity tend to be highly diverse and include a disproportionate percentage of under-represented minorities.

✓ College Performance: Despite the associated disadvantages, students with high levels of adversity tend perform well in college, exhibiting only a very small tendency to under-perform academic expectations.

✓ Admissions Feedback: Pilot users agree that the ECD data is credible, consistent, accurate and makes it easier to incorporate context into the admissions process.
Environmental Context
Geography

National Distribution
Environmental Context
Geography

Chicago
Environmental Context

Geography

New York City
Higher adversity tend to be more diverse, with a higher proportions of under-represented minorities.
**Adversity and Fee Waivers**

Higher adversity students much more likely to receive College Board Fee Waivers
Adversity and SAT/PSAT

Higher adversity tend to be less well academically prepared
Environmental Context

Relationship between Adversity and Outcomes

Higher adversity is associated with only very small increase in the risk of under-performing on GPA (based on test scores, AP and high school GPA).
Historical analysis

Analysis of prior applicant pools to provide baseline information

<table>
<thead>
<tr>
<th>Adversity Quintile</th>
<th>Average Freshman GPA (4.0 scale)</th>
<th>Sophomore Year Retention Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>3.45</td>
<td>97.8%</td>
</tr>
<tr>
<td>2nd</td>
<td>3.40</td>
<td>96.5%</td>
</tr>
<tr>
<td>3rd</td>
<td>3.27</td>
<td>97.5%</td>
</tr>
<tr>
<td>4th</td>
<td>3.10</td>
<td>96.5%</td>
</tr>
<tr>
<td>5th</td>
<td>3.12</td>
<td>96.7%</td>
</tr>
</tbody>
</table>
Environmental Context

Experimental Pilot Results

- Experiments took several forms
- Use of the information in the dashboard was linked closely to mission and processes that support true holistic review
- As we implement operationally, we’ll continue to gather evidence about the use of the ECD

- Conducted experiments with 8 institutions where admissions staff re-read applications from prior year, some with the dashboard and some without, and provided new ratings/recommendations for admission

- Topline results
  - Adversity information → increased admission recommendation at some institutions for students from more adverse backgrounds
  - Adversity information → increased admission ratings at some institutions for students from more adverse backgrounds
  - Scores in context information → increased admission recommendations at some institutions for students with top scores within their school
  - Introduction of the dashboard → sensitized some admissions readers to the role of context even when dashboard wasn’t available
  - Depth and breadth of information in the dashboard broadly viewed as useful by institutions
Experimental Results for One Institution

**Higher admit rates for high adversity applicants with the dashboard**

- Applicants reviewed with the dashboard were more frequently recommended for admission than applicants reviewed without the dashboard.

### Experimental Admission Rates

<table>
<thead>
<tr>
<th></th>
<th>High Adversity</th>
<th>Low Adversity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has Dashboard</td>
<td>66%</td>
<td>70%</td>
</tr>
<tr>
<td>No Dashboard</td>
<td>53%</td>
<td>67%</td>
</tr>
</tbody>
</table>
Institutional Partners

Amy Hecht, Vice President for Student Affairs – Florida State University

John Barnhill, Asst. Vice President for Enrollment Management – Florida State University

Joyce Mai, Director of Recruitment – North Carolina State University
Florida State University
Tallahassee, Florida

Total Enrollment: 41,900
2018 First Year Applicants: 51,016
First Year Enrollment Target: 6,200

2018 Admitted Applicant Profile (Middle 50%)
Grade Point Average: 4.1-4.5
SAT: 1290-1400 | ACT: 28-32

Top States (outside of Florida)
Georgia, New York, North Carolina
New Jersey, Maryland
In 1999, Florida’s Governor, Jeb Bush, issued Executive Order 99-281 prohibiting the consideration of race/ethnicity in the admission decisions of the State University System of Florida. Diversity has been, and always will be, a compelling interest of the university. We actively seek first generation students and socioeconomically disadvantaged students for the diversity their perspective brings to our community.
# Environmental Context Dashboard: Historical Report

Number of FSU Records Included in the Analysis

<table>
<thead>
<tr>
<th>Year</th>
<th>Records</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>33,203</td>
</tr>
<tr>
<td>2016</td>
<td>33,049</td>
</tr>
</tbody>
</table>
## Environmental Context Dashboard: Historical Report

<table>
<thead>
<tr>
<th></th>
<th>Applicants</th>
<th>Admitted</th>
<th>Enrolling</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>33.82</td>
<td>30.57</td>
<td>33.38</td>
</tr>
<tr>
<td>2016</td>
<td>34.63</td>
<td>30.34</td>
<td>31.66</td>
</tr>
</tbody>
</table>

### Median Adversity by Admission Decision and Cohort
Environmental Context Dashboard: Historical Report
Environmental Context Dashboard: Historical Report

Probability of Being Admitted by Adversity Index by Sex

Admit Rate

Adversity Index Quintile

Female
Male
All Applicants
Environmental Context Dashboard: Historical Report

Table 5.1: Freshmen GPA by Adversity Quintile

<table>
<thead>
<tr>
<th>Adversity Quintile</th>
<th>Average Freshman GPA (4.0 scale)</th>
<th>Sophomore Year Retention Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st</td>
<td>3.27</td>
<td>86.6%</td>
</tr>
<tr>
<td>2nd</td>
<td>3.24</td>
<td>90.6%</td>
</tr>
<tr>
<td>3rd</td>
<td>3.17</td>
<td>89.5%</td>
</tr>
<tr>
<td>4th</td>
<td>3.10</td>
<td>91.4%</td>
</tr>
<tr>
<td>5th</td>
<td>2.98</td>
<td>91.9%</td>
</tr>
</tbody>
</table>
ECD use during our pilot year

- Summer Bridge Program Admission
- “On the Bubble” Admission
CARE is a multifaceted center that provides academic support and programming for Florida residents who are first-generation students who face unique challenges in college because of economic and educational circumstances. Our mission is to help students who are traditionally underrepresented in higher education enroll, persist, and graduate from college by providing them with the resources, tools, and network of support that will aid in their academic and personal development.
How do students receive CARE Consideration?

- Students are asked if they are interested in the CARE program when they apply for admission.
- Interested students are directed to submit two 300 word essays and FAFSA information in addition to all of the information required in the regular application.
- In 2018, 5400+ students indicated an interest in CARE and 2660 students completed all the necessary information to be reviewed for CARE.
The Admissions Process

• Holistic Review utilizing academic information, financial information, and personal information gleaned from the essays, extracurricular activities, community service, and recommendations.
• And this year, ECD data!
Slate

- A comprehensive Admissions computer platform.
- Virtual electronic folders for all applicants.
- Communication history.
Environmental Context Dashboard

About the Student
- Student ID: 085237359
- Home City, State: Miami, FL
- Rural: No
- High School: Miami Arts Charter School

Scores in Context

Student's Scores
- SAT Superscore: 600 600 1200

High School Score Data
- Percentiles:
  - 25th Percentile: 480 440 910
  - 50th Percentile: 530 500 1030
  - 75th Percentile: 600 530 1130
- Typical % of Seniors Taking SAT: 100%

Context Measures
- Overall Adversity Index Percentile: 79

Neighborhood Context Ratings
- Overall NH Adversity: 89
- College Enroll. Choice: 87
- Crime Risk: 89
- Family Characteristics: 84
- Educational Attainment: 89
- Housing Stability: 81
- Median Family Income: 90

High School Context Ratings
- Overall HS Adversity: 51
- College Enroll. Choice: 61
- Family Characteristics: 64
- Educational Attainment: 40
- Housing Stability: 52
- Median Family Income: 87

About the High School
- Typical Senior Class Size: 81
- Typical SAT of Colleges Attended: 1194
- College Preparation
  - Percent Free/Reduced Lunch: 14%

AP Opportunity at the High School
- # of Unique AP Tests Administered: 21
- % of Graduates Taking 1 or More: 100%
- Avg. # of AP Tests Taken: 3.13
- Avg. AP Score: 2.55
Environmental Context Dashboard

About the Student

Student ID: 026377277
Home City, State: Jacksonville, FL
Rural: No
High School: Robert E Lee Senior High School

Scores in Context

Student's Scores

<table>
<thead>
<tr>
<th>Test Source</th>
<th>EBRW</th>
<th>Math</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACT Superscore (20)</td>
<td></td>
<td></td>
<td>1030</td>
</tr>
<tr>
<td>High School Score Data</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percentiles</th>
<th>EBRW</th>
<th>Math</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>25th Percentile</td>
<td>420</td>
<td>400</td>
<td>830</td>
</tr>
<tr>
<td>50th Percentile</td>
<td>470</td>
<td>460</td>
<td>940</td>
</tr>
<tr>
<td>75th Percentile</td>
<td>530</td>
<td>510</td>
<td>1040</td>
</tr>
</tbody>
</table>

Typical % of Seniors Taking SAT: 95%

Context Measures

Overall Adversity Index Percentile: 79

Neighborhood Context Ratings

Overall NH Adversity: -73
College Enroll. Choice: -81
Crime Risk: -84
Family Characteristics: -73
Educational Attainment: -67
Housing Stability: -48
Median Family Income: 0

High School Context Ratings

Overall HS Adversity: 84
College Enroll. Choice: 8
Family Characteristics: 30
Educational Attainment: 78
Housing Stability: 71
Median Family Income: 0

AP Opportunity at the High School

# of Unique AP Tests Administered: 304
% of Graduates Taking 1 or More: 97%
Avg. # of AP Tests Taken: 2.51
Avg. AP Score: 1.45
Environmental Context Dashboard

About the Student

- **Student ID**: 853856368
- **Home City, State**: Norristown, PA
- **High School**: Methacton High School

Scores in Context

**Student’s Scores**

<table>
<thead>
<tr>
<th>Test Source</th>
<th>EBRW</th>
<th>Math</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAT Superscore</td>
<td>630</td>
<td>610</td>
<td>1240</td>
</tr>
</tbody>
</table>

**High School Score Data**

<table>
<thead>
<tr>
<th>Percentiles</th>
<th>EBRW</th>
<th>Math</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>25th Percentile</td>
<td>530</td>
<td>540</td>
<td>1080</td>
</tr>
<tr>
<td>50th Percentile</td>
<td>600</td>
<td>600</td>
<td>1200</td>
</tr>
<tr>
<td>75th Percentile</td>
<td>660</td>
<td>680</td>
<td>1330</td>
</tr>
</tbody>
</table>

**Typical % of Seniors Taking SAT**: 75%

Context Measures

**Overall Adversity Index Percentile**: 14
Future plans for the ECD at FSU

- Use for all applicant decisions.
- Create an ECD or Adversity Scholarship
- Research on ECD components.
- Research on ECD as it relates to retention and graduation.
North Carolina State University

Joyce Mai, Director of Recruitment
ECD Operational Pilot

Where we are

- **Our operational pilot is wrapping up**, for the previous admission cycle (HS class of 2018)
- Small group of participating institutions (15 schools)
- Using the dashboard via the web interface or their CRM during early or regular admissions
- Participants will:
  - Provide feedback on their use via surveys & focus groups
  - Share data on admissions decisions at the end of the process
- At the same time, we are continuing to engage with a groups of interested institutions who were not ready to implement this year
ECD Next Steps: 2018 and Beyond

• Wider partnership planned for Fall 2018

• We are considering a 3-year partnership model in which colleges would use the ECD data and tool in their admissions process and
  
  • Provide feedback on tool to improve and refine and identify features of value
  
  • Engage in qualitative and quantitative research with the College Board on the use of context in admissions
  
  • Help develop effective practices that positively impact the number of students from higher adversity contexts who are admitted
  
• Schools interested in using the tool operationally starting in Fall of 2018 should reach out to us at: futureadmissions@collegeboard.org
Questions?