The Relationships between GEAR UP Participation, High School GPA, AP Participation, and ACT Scores with College GPA

As part of our evaluation of the MPS Gaining Early Awareness and Readiness for Undergraduate Programs (GEAR UP) grant, we analyze the connection between measures of high school performance, such as AP course participation, participation in GEAR UP programming, ACT scores, and GPA with first-year college GPA. Data were provided by the Milwaukee Public Schools (MPS), the University of Wisconsin in Milwaukee (UWM), and Milwaukee Area Technical College (MATC) for students who graduated GEAR UP schools between 2015 and 2018 and then attended either UWM or MATC. Although we did not find a connection between participation in GEAR UP and college GPA, this was complicated by a lack of variance, in that nearly all students were engaged in a high amount of GEAR UP programming. GEAR UP provided students opportunities, such as college visits, ACT preparation, and college counseling, which are often more available for students in more resourced schools. Participation in AP courses and ACT scores were both slightly predictive of college GPA, but only accounted for about 1% of the variance each. The only factor that uniquely predicted college GPA was high school GPA. After accounting for high school GPA, neither ACT scores nor AP course participation predicted college GPA. Considering the COVID-19 crisis is limiting access to the ACT, these results suggest colleges will likely be able to make informed admission decisions using only high school transcripts.

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The Relationships between GEAR UP Participation, High School GPA, AP Participation, and ACT Scores with College GPA

In 2011, the Milwaukee Public Schools (MPS) was awarded a 7-year, $14.87 million federal GEAR UP grant to promote college awareness and readiness. The grant provided supports to students from the high school graduating classes of 2017 and 2018. The GEAR UP initiative employed a school-family-community partnership strategy (Epstein et al., 2002) to bring culturally relevant and effective supports to students, and to empower families and schools to better support students as they progressed through school and into college and careers.

MPS applied for the grant to develop services that could address a historically low on-time, four-year graduation rate. At the time of the grant application in 2011 only 62.8% of students graduated on time. Even fewer economically disadvantaged students (61.5%), African American (61.1%), and Hispanic (58.9%) students graduated MPS on time.¹ After receiving funding, MPS GEAR UP started supporting the 2017 and 2018 graduating classes when students were still in 6th and 7th grade respectively, during the 2011-2012 school year. Each year, the initiative provided these students, their parents, and their schools with a variety of supports designed to meet two objectives:

Objective 1 was to increase educational expectations for participating students and family knowledge of postsecondary education options, preparation, and financing.

Objective 2 was to increase academic performance, high school graduation, and post-secondary readiness and enrollment.

The current study seeks to estimate the impact of participation in GEAR UP programming on college success. To do so, we explore how participation in GEAR UP is associated with other measures of student high school success and achievement, such as ACT scores, high school grade point average (GPA), and participation in advanced placement (AP) classes that may also be related with first-year college GPA.

This study has taken on a new importance due to the disruption to schools across the US as a result of COVID-19. While the primary purpose of this study is the explore the impact of GEAR

¹ https://wisedash.dpi.wi.gov/Dashboard/portalHome.jsp
UP on college success, our analysis used to test that question allows us to explore all available data to determine what aspects of a student’s high school experience best predict their college success. By including a number of school performance data, this study may identify factors that could replace data that may not be available to inform college admission decisions. Colleges are likely to have less data from which to make their admission decisions, with many high schools moving to pass/fail grading policies and fewer students taking the ACT or SAT.

**The college access gap**

The GEAR UP initiative works to address many of the racial and economic inequities inherent in education that lead to racial and economic gaps in both the enrollment and completion of college.² GEAR UP provides students with limited means opportunities they might not otherwise have. Although access to college visits, ACT preparation, and intensive college counseling and preparation may be expected for most students and families, they are often not available for financial or logistical reasons for low-income students of color attending struggling schools. While GEAR UP works to help close the college opportunity gap, the events of COVID-19 have likely widened it.

Every aspect of the education system from PreK to 20 has had to adapt to COVID-19 and the social distancing needed to limit its spread. Schools have closed and classes have moved online to limit the spread of the virus. While it has become increasingly understood the move to online learning has exacerbated educational inequities³, less has been discussed about how the disruptions to the college admissions process could further expand the college access gap between races and economic groups.

The college admissions process uses information about students to estimate how likely they are to succeed in their schools. One way this process has been disrupted involves the inability of students to take required standardized tests, a key piece of information about the student. Administrations of the ACT and SAT have been postponed across the US. While an increasing number of colleges, including all UW campuses except Madison, are changing their admissions

processes in response to this, by either dropping the standardized test requirement completely or making it optional\(^4,5\), most still require students to submit an ACT or SAT score as part of their application.

The increasing number of colleges not requiring students to submit an ACT or SAT score with their application follows a national trend that predates the COVID-19 crisis. A limited number of colleges across the US already made standardized tests optional, with an understanding that requiring them disadvantages certain groups of students. It is also widely understood that higher scores are positively associated to family income and race\(^6\). For example, students in more affluent schools with a stronger focus on college and in more affluent families are more likely to participate in activities that tend to boost student scores such as test preparation classes and retaking the exam multiple times.

Much like the college admissions scandal involving Felicity Huffman and Lori Loughlin\(^7\), the COVID-19 crisis also shows the inherent unfairness of the current college admissions process. For example, the state in which a person resides might determine the level of access to the tests or any preparation to take it. Some states closed schools before students could take the ACT or SAT assessments. Further, as the College Board considers moving the ACT and SAT online\(^8\), inequitable access to reliable internet and a computer would further exacerbate the inequities in the college application process and result in a widening opportunity gap between the haves and the have-nots.

With the impediments students face taking the ACT/SAT during the COVID-19 crisis, it is unclear why more colleges have not moved to test-optional admission policies. The publisher of the assessments, the College Board has stressed the ACT and SAT are strong predictors of college success and emphasize they should be used with high school GPA to screen students as part of the admissions process (Huh & Huang, 2016; Westrick et al., 2020). They argue that colleges need these scores to fully vet the pool of candidates because the ACT is a standardized

\(^7\) [https://www.nytimes.com/2019/03/12/arts/huffman-loughlin-college-scandal.html](https://www.nytimes.com/2019/03/12/arts/huffman-loughlin-college-scandal.html)
test that provides an objective measure of a student’s ability, independent of which high school they attended. It is possible colleges considering a move to a test-optional application process may be concerned that not using ACT or SAT scores to inform their decisions will diminish their ability to accurately identify students who will be successful in their school. This study explores this concern in the context of a study of MPS GEAR UP by comparing the predictive validity of ACT scores with other aspects of school performance such as GPA and participation in AP classes.

**The current study**

In addition to evaluating the impact of MPS GEAR UP on college GPA, this study speaks to the current COVID-19 crisis by measuring the predictive validity of the ACT, along with other measures of school performance, such as high school GPA and participation in advanced placement (AP) classes. The MPS GEAR UP initiative was active in eight high schools with mostly low-income students of color to bring culturally relevant and effective supports to students, and to empower families and schools to better support students as they progressed through school and into college. In this study, we seek to identify the best predictors of college success for students who graduated from these eight GEAR UP MPS schools. This study weighs the importance of the various measures of school success, some of which may not be available for future graduating classes, to ask the following research questions:

1. Is there evidence participation in GEAR UP helped prepare students to succeed in college, as measured by their freshman GPA?
2. What were the most important measures of a student’s high school performance for predicting their college success, as measured by their freshman year GPA?
3. Do ACT scores equalize the admissions process for students attending different schools?
4. What is lost by not including ACT scores in the college admissions process?
Study Methods

Data sharing and organization

We worked closely with the Milwaukee Public Schools (MPS), UW – Milwaukee (UWM), and Milwaukee Area Technical College (MATC) in the design and execution of this study. MPS provided high school transcripts, ACT scores, GEAR UP participation, post-secondary college enrollment, and demographic data for graduating students attending the eight schools engaged in the GEAR UP program during the 2015, 2016, 2017, and 2018 school years. From MPS transcript data, we calculated both an overall high school GPA and a senior year GPA and identified students who had participated in AP classes. Thus, the following data points were derived from MPS data:

- Overall high school GPA
- Senior year GPA
- Participation in AP classes (Yes or No)
- Cumulative ACT score
- College attended after graduating
- Gender
- Race/Ethnicity
- High school enrolled in
- Free/Reduced lunch eligibility
- Whether the student has an IEP (Yes or No)
- Participation in GEAR UP (Yes – graduated in 2018 or 2017; No – graduated in 2016 or 2015). We planned to include a more nuanced measure of participation in GEAR UP but ultimately decided to measure participation as either yes or no. Nearly all students included in the study who were part of a GEAR UP cohort attended a number of GEAR UP activities. As such, the decision was made to simply compare students from the GEAR UP cohorts to students graduating before GEAR UP.

UWM and MATC provided course performance data for freshman who graduated from the eight GEAR UP schools and directly enrolled between the Fall of 2015 and the Fall of 2018. The data included the number of credits attempted and earned, both fall and spring semester GPA, which high school they attended, Fall-to-Spring or Fall-to-Fall\(^9\) retention, and whether they took

\(^9\) Fall-to-Fall data was not available for the 2018 graduating cohort.
remedial or credit-bearing English and math courses. For the current study, we were interested in the overall GPA of students who attempted at least 12 credit hours their freshman year of college.

MPS data were combined with UWM and MATC data to create the dataset used for the analysis. We used on-time four-year high school graduates from MPS as a baseline file for MPS records. Matching between MPS records and UWM and MATC records was done by student name, birth date, and school. Afterwards, manual matching was done. We also worked with the three institutions to clarify cases where college enrollment data provided by MPS did not match MATC or UWM data. Ultimately, of the 783 students who directly entered MATC from the 2015 through 2018 graduating cohorts, 23 (2.9%) students were not matched. Of the 193 GEAR UP students directly entering UWM, 14 (7.3%) were not matched.

**Students included in the study**

This study includes 446 students who graduated between 2015 and 2018 who later enrolled in either MATC or UWM and attempted at least 12 credit hours their freshman year. 220 (49.3%) of these students graduated as part of the 2017 or 2018 class, and thus were part of GEAR UP. 308 (69.1%) students enrolled in MATC and 138 (30.1%) in UWM. 330 (74.0%) students were eligible for free or reduced lunch and 241 (54.0%) were female. 201 (45.1%) were African American and 129 (28.9%) were Latinx.

**Analysis procedures**

Hierarchical linear modeling (HLM) was used to predict first-year college GPA with students nested within the eight GEAR UP schools. First, an unconditional model tested the amount of variability in first-year college GPA that was attributed to school and student factors. This was expressed as,

\[ Y_{ij} = \gamma_{00} + u_{0j} + r_{ij} \]  

(1)

where \( Y_{ij} \) represents first year college GPA for student \((i)\) in high school \((j)\), \( \gamma_{00} \) is the grand mean of all schools, \( u_{0j} \) is the differences between schools, and \( r_{ij} \) is the differences between students.
An intra-class correlation (ICC) was computed to determine the percentage of variance in college GPA that can be attributed to their high school. The ICC equations are:

\[ \rho_I = \frac{\tau^2}{\tau^2 + \sigma^2} \]  

(2)

where \( \sigma^2 \) is the student variance and \( \tau^2 \) is the variance between schools.

Next, a full model included all study factors to determine which were the most important for predicting college success (first-year college GPA). This was written as,

\[ Y_{ij} = \gamma_{00} + \gamma_{10}(MATC_{ij}) + \sum_{m=1}^{M} \beta_{20.m}X_{mij} + \gamma_{30}(ACT_{ij}) + \gamma_{40}(OVRALGPA_{ij}) \]

\[ + \gamma_{50}(SRGPA_{ij}) + \gamma_{60}(AP_{ij}) + \gamma_{70}(GU_{ij}) + u_{0j} + r_{ij} \]  

(3)

Where \( \gamma_{10} \) represents the difference in college GPA between students attending MATC and UWM; (MATC) is 1 if the student was enrolled in MATC, 0 if UWM; \( \sum_{m=1}^{M} \beta_{20.m}X_{mij} \) is a vector of \( m \) number of student-level demographic characteristics (gender, race, FRL); \( \gamma_{30} \) is the relationship of a student’s ACT composite score with their college GPA;\(^{10} \) \( \gamma_{40} \) is the relationship between a student’s overall high school GPA and their college GPA; \( \gamma_{50} \) is the relationship between a student’s senior year GPA and their college GPA; \( \gamma_{60} \) is the relationship between a student’s participation in AP classes and their college GPA; \( AP_{ij} \) is 1 if a student attempted at least one AP course; \( \gamma_{70} \) is the relationship between whether a student was part of the GEAR UP cohort and their college GPA; \( GU_{ij} \) is 1 if a student was part of a GEAR UP cohort. All model factors where centered around the grand mean, such that the model intercept represents the adjusted average college GPA.

We also calculated the amount of variance explained, or pseudo-\( R^2 \), at both the individual and school level when comparing the results of the conditional model with the unconditional model. The calculation determining the change in individual-level variance explained is,

\(^{10} \) MATC does not ask all students to submit ACT scores as part of their admissions application while UWM does.
\begin{align*}
R^2 &= 1 - \frac{(\sigma^2 + \tau^2)_{\text{Conditional Model}}}{(\sigma^2 + \tau^2)_{\text{Unconditional Model}}} \\
\end{align*}

Likewise, the difference in the amount of school-level variance explained is,

\begin{equation}
R^2 = 1 - \frac{\tau^2_{\text{Model 1}} - \tau^2_{\text{Model 2}}}{\tau^2_{\text{Model 1}}}
\end{equation}

**Study Results**

Table 1 presents the descriptive statistics of school performance results for this sample. About three-fourths of students had participated in at least one AP class. Also, college GPAs were somewhat lower on average (2.30) than overall high school (2.55) and senior year (2.68) GPAs.

Table 1: Student performance results

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Min.</th>
<th>Max.</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>College GPA</td>
<td>2.30</td>
<td>0.00</td>
<td>3.96</td>
<td>0.89</td>
</tr>
<tr>
<td>ACT Composite score</td>
<td>16.51</td>
<td>8</td>
<td>27</td>
<td>3.20</td>
</tr>
<tr>
<td>Overall high school GPA</td>
<td>2.55</td>
<td>1.09</td>
<td>3.98</td>
<td>0.62</td>
</tr>
<tr>
<td>Senior year GPA</td>
<td>2.68</td>
<td>0.57</td>
<td>4.00</td>
<td>0.69</td>
</tr>
<tr>
<td>Participation in AP</td>
<td>73%</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

**Correlation (unadjusted) results**

Bivariate correlations\textsuperscript{11} are presented in Table 2. From these, high school GPA was the most correlated with college GPA (Overall high school GPA: $r = .437, p < .01$; Senior Year GPA: $r = .441, p < .01$); MPS students with higher high school GPAs tend to have higher college GPAs. ACT scores and participation in AP courses were somewhat related to college GPA, but much less so (\textbf{ACT}: $r = .123, p = .009$; \textbf{AP}: $r = .123, p = .10$). Specifically, high school GPA was 13 times more predictive of college GPA than ACT scores or AP participation. Being part of the

\textsuperscript{11} Point-Biserial correlations were used when correlating binary variables.
GEAR UP cohort was not associated with college GPA ($r = .010, p = .827$). It was somewhat associated with lower ACT though ($r = -.113, p = .017$), which may be an artifact of the finding in a previous study of GEAR UP that high school graduation rates improved for the graduating GEAR UP student cohorts (Jones & Gilman, 2019). As a larger percentage of students graduates from high school, the graduating class includes more students with lower ACT scores. Regarding other measures of high school performance, students with better grades were more likely to take AP classes and score higher on the ACT. Students who participated in AP classes had a higher overall GPA ($r = .350, p < .01$), a higher senior year GPA ($r = .156, p < .01$), and higher ACT scores ($r = .325, p < .01$).

Table 2: Correlations of school performance factors

<table>
<thead>
<tr>
<th></th>
<th>Overall high school GPA</th>
<th>Senior year GPA</th>
<th>Participation in AP</th>
<th>GEAR UP Cohort</th>
</tr>
</thead>
<tbody>
<tr>
<td>College GPA</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ACT Composite score</td>
<td>.123**</td>
<td>.437**</td>
<td>.441**</td>
<td>.123**</td>
</tr>
<tr>
<td>Overall high school GPA</td>
<td>.415**</td>
<td>.258**</td>
<td>.350**</td>
<td>-.113*</td>
</tr>
<tr>
<td>Senior year GPA</td>
<td>.415**</td>
<td>.775**</td>
<td>.156**</td>
<td>-.063</td>
</tr>
<tr>
<td>Participation in AP</td>
<td>.325**</td>
<td>.350**</td>
<td>1</td>
<td>-.045</td>
</tr>
<tr>
<td>GEAR UP Cohort</td>
<td>0.01</td>
<td>-.063</td>
<td>-0.045</td>
<td>-0.028</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

**Modeling (adjusted) results**

The results of the unconditional model suggest 5.6% of differences in students’ college GPA was attributable to which high school they attended ($ICC = .0556, p < .001$), which means the majority of what determined college GPA was attributable to individual student characteristics.

Results of the full model, including all student factors, are presented in Table 3. When including all student factors together, the only uniquely predictive factors were overall high school GPA ($\gamma_{40} = .411, p < .01$) and senior year GPA ($\gamma_{50} = .332, p < .01$). Neither ACT scores nor AP class
participation predicted college GPA ($\gamma_{30} = -.013, p = .353$; AP: $\gamma_{60} = .101, p = .285$). This model did not explain any of the differences between schools but did explain 22.7% of individual differences in college GPA. Being part of GEAR UP was not associated with college GPA ($\gamma_{70} = .067, p = .378$).

Table 3: Full HLM results predicting first-year college GPA

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-ratio</th>
<th>Approx. df.</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>2.279</td>
<td>0.092</td>
<td>24.851</td>
<td>7</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Attended MATC</td>
<td>0.096</td>
<td>0.099</td>
<td>0.965</td>
<td>427</td>
<td>0.335</td>
</tr>
<tr>
<td>Female</td>
<td>0.033</td>
<td>0.077</td>
<td>0.422</td>
<td>427</td>
<td>0.673</td>
</tr>
<tr>
<td>Eligible for free or reduced lunch</td>
<td>-0.011</td>
<td>0.089</td>
<td>-0.124</td>
<td>427</td>
<td>0.901</td>
</tr>
<tr>
<td>ACT Composite score</td>
<td>-0.013</td>
<td>0.014</td>
<td>-0.93</td>
<td>427</td>
<td>0.353</td>
</tr>
<tr>
<td><strong>Overall high school GPA</strong></td>
<td><strong>0.411</strong></td>
<td><strong>0.111</strong></td>
<td><strong>3.696</strong></td>
<td><strong>427</strong></td>
<td><strong>&lt;0.001</strong></td>
</tr>
<tr>
<td><strong>Senior year GPA</strong></td>
<td><strong>0.332</strong></td>
<td><strong>0.087</strong></td>
<td><strong>3.826</strong></td>
<td><strong>427</strong></td>
<td><strong>&lt;0.001</strong></td>
</tr>
<tr>
<td>Student is African American</td>
<td>0.008</td>
<td>0.126</td>
<td>0.066</td>
<td>427</td>
<td>0.947</td>
</tr>
<tr>
<td>Student is Latinx</td>
<td>0.082</td>
<td>0.131</td>
<td>0.628</td>
<td>427</td>
<td>0.530</td>
</tr>
<tr>
<td>Student is White</td>
<td>-0.060</td>
<td>0.148</td>
<td>-0.405</td>
<td>427</td>
<td>0.686</td>
</tr>
<tr>
<td>Participation in AP</td>
<td>0.101</td>
<td>0.094</td>
<td>1.071</td>
<td>427</td>
<td>0.285</td>
</tr>
<tr>
<td>GEAR UP Student</td>
<td>0.067</td>
<td>0.076</td>
<td>0.882</td>
<td>427</td>
<td>0.378</td>
</tr>
</tbody>
</table>

Comparison of unadjusted and adjusted results

Analyzing which factors on their own predicted college GPA, and which factors remained predictors of GPA after adjusting for other measures of high school performance clarifies their relationships. Student GPA, both cumulative and senior year, was by far the greatest predictor of college GPA. This did not change after adjusting for other measures of student performance and student characteristics. Unadjusted, a 1.0 GPA increase in overall high school GPA was associated with a 0.59 grade point increase in college GPA. Similarly, a 1.0 GPA increase in senior year GPA was associated with a 0.59 grade point increase in college GPA. Adjusted, a 1.0
GPA increase in both overall and senior year GPA was associated with a 0.74 grade point increase in college GPA (Figure 1).

Figure 1: The relationship between college GPA and high school GPA

While ACT scores were slightly correlated with college GPA, these relationships disappeared after adjusting for high school GPA and other student characteristics. Figure 2 shows the positive, unadjusted relationship between ACT scores and college GPA. However, after accounting for measures of high school GPA, the adjusted relationship between ACT scores and college GPA is mostly flat.
Like ACT scores, unadjusted, AP participation was slightly correlated with college GPA. However, after adjusting for high school GPA they were not. Figure 3 presents high school and college GPA broken down by whether students took AP courses. Although, unadjusted, students who took AP courses had higher college GPAs (2.36) than those who did not (2.12), they also had much higher high school GPAs (2.68) than those who did not (2.19). After adjusting for high school GPA and other student characteristics, the college GPA of students who participated in AP was the same as those who did not (2.27).
Summary Findings

Is there evidence participation in GEAR UP helped prepare students to succeed in college, as measured by their freshman GPA?

The results of this study do not provide evidence that participation in GEAR UP caused students to perform better in college, but some evidence that it successfully supported students on their path toward college. GEAR UP participation was ubiquitous for students in the graduating GEAR UP cohort, which made measuring the impact of participation difficult. Of the 220 students in the GEAR UP cohorts who attended MATC or UWM full-time, all but four participated in GEAR UP programming. 180 (82%) of these students participated in an intensive level of GEAR UP programming (three or more types of activities). As a follow up to a previous study that connected participation in GEAR UP with higher high school graduation rates (Jones & Gilman, 2019), the original goal of this study was to compare the college performance of students engaged in various levels of GEAR UP programming. However, considering nearly all students who graduated high school and attended MATC or UWM had participated in several GEAR UP activities, this was not possible to do. All of this suggests that GEAR UP
programming was valued by nearly all students who ultimately went to college. Through their continued participation, students saw value in the activities and supports provided that were designed to help prepare them for success after high school. GEAR UP provided students access to post-secondary opportunities many would not have otherwise had.

**What were the most important measures of a student’s high school performance for predicting their college success, as measured by their freshman year GPA?**

As seen in Figures 1, 2, and 3, statistical adjustment clarified that high school GPA was by far the strongest determinant of college GPA. Interestingly, including both cumulative GPA and senior year GPA improved the predictive power of high school GPA. This finding may provide some direction for how college admissions officers should interpret a student’s high school transcript; it is important how well the student did in high school, both overall, and in their most recent courses. Although students with higher ACT scores and those who participated in AP courses tended to earn higher grades in college, after accounting for their high school GPA, they did not. Regarding AP, since nearly three out of every four students took at least one AP course, participation in AP courses seems part of the normative high school experience for students who ultimately attended college. However, the finding that it did not uniquely predict college GPA does not suggest students did not benefit from their participation. They may have gathered value from their participation in ways not assessed in this study, such as having a more positive expectation for college and being more likely to attend college. Regarding ACT scores, this study’s findings suggest it did not predict how well students would do in college, and thus, was not beneficial to college admissions offices. Further, unlike AP courses, it is difficult to find some benefit the students in this study received from their participation in the ACT.

**Does ACT equalize the admissions process for students attending different schools?**

One argument for including ACT in the college admissions process is it provides a standard measure of student ability that is independent of their school or district. With this logic, including ACT scores in the model would theoretically account for school differences in the college performance of students. This was not found in our study. Even after accounting for ACT scores, participation in AP, and high school GPA, the high school a student attended remained a significant predictor of their college success; these factors did not explain any of the differences
in college GPA attributable to what high school they attended. This finding is consistent with other recent research out of Chicago (Allensworth & Clark, 2020) where they found the strength of the relationship between which high school you attend and your success in college is much greater than the relationship between ACT scores and success in college.

**What is lost by not including ACT scores in the college admissions process?**

Since ACT scores were unrelated with college GPA, excluding ACT scores in the admissions process would not have subtracted from the ability of college admissions offices to predict the success of students. As has been discussed, measures of GPA were the only significant factors that predicted college success in this study.

**Discussion**

At its core, GEAR UP is designed to promote equity in access to college and careers. It does this by providing students, often low-income, college-focused supports and resources they are disproportionately less likely to receive relative to high-income peers. Our previous studies of MPS GEAR UP have found participation to be associated with increased AP course participation\(^\text{12}\) and improved on-time graduation rates (Jones & Gilman, 2019). While the current study was not able to prove that access to GEAR UP resources impacted student college success, it does show that nearly all MPS students in these eight GEAR UP schools who attended college full-time participated in a number of GEAR UP-sponsored activities on their path to college.

Beyond GEAR UP, the results of this study also inform a larger discussion of whether colleges should continue to require students to submit standardized test scores as part of their application, especially given how education has changed in response to the COVID-19 crisis. On one side are advocates for equity that argue the ACT and SAT are biased assessments that discriminate against persons of color and those without the means to take the assessments multiple times or to participate in test preparation activities. This was reflected in the experiences of former GEAR UP students who, in a focus group, identified ACT prep as a critical service provided to them by GEAR UP.\(^\text{13}\) Without GEAR UP, they did not believe they would have been as prepared to take

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\(^\text{12}\) The increase in AP course participation was determined as part of required grant reporting to DOE.

the ACT and likely would have scored lower. On the other side of the argument are college admissions offices and the College Board who argue that the assessments are necessary for measuring aptitude independent of the local quality of schooling and course grading policies. Yet, the results of this study raise questions about whether the ACT should be as important as it generally is for college admissions. Although this study only includes students in MPS, and therefore may not be generalizable to other school district or colleges, its findings are consistent with a growing body of evidence that suggests individual results of the ACT or SAT may be of limited use for identifying students likely to succeed in certain colleges (Allensworth & Clark, 2020; Geiser & Santelices, 2007).
References


Huh, N., & Huang, C.-Y. (2016). Examining the Validity of ACT® Composite Score and High School Grade Point Average for Predicting First-Year College GPA of Special-Tested Students (No. 2016-7). ACT Research Report Series.
