



Center for Business and Economic Research

Wayne County Community Learning Centers Program Evaluation

2022 Data Analysis Update

Final Report

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Introduction

The Wayne County Community Learning Centers (WCCLC) initiative offers after school and summer programs to provide educational and enrichment experiences for public school children in Wayne County, West Virginia. Playmates Preschools and Child Development Centers, Inc. (Playmates), one of the partners of WCCLC program efforts, contracted with the Marshall University Center for Business and Economic Research (CBER) to provide ongoing evaluation of the program.¹

The current analysis will review student performance data from the 2021-2022 school years and compare these data with previous CBER analyses where applicable to illustrate potential trends in student outcomes. Additional data regarding disciplinary action counts will be included as part of this report. These data provide supplementary analysis of participant improvement by examining potential relationships between participation in the WCCLC program on student behaviors. Student disciplinary counts are matched to GPA improvements where possible.

Background of the WCCLC Program

The Wayne County Community Learning Centers (WCCLC) program is one of several 21st Century Community Learning Center Programs in West Virginia and is part of a West Virginia Department of Education (WVDE) statewide initiative to improve student education and provide opportunities for lifelong success. The partnership between the WCCLC and its community and business partners, including the Wayne County Board of Education and Playmates Preschools and Child Development Centers, Inc., provides a framework of stability and support to achieve these goals.

The WCCLC is an educational and learning coalition comprised of 29 programs hosted in all Wayne County public schools (elementary, middle, and high schools) and seven community Playmates locations² The Program operates afterschool and summer activities to assist students through a number of services, including:

- Tutoring
- Physical fitness
- Homework assistance
- Entrepreneurship skills development
- Science, Technology, Engineering and Mathematics (STEM).

The WCCLC program relies on the participation of all community Playmates locations, the Wayne County Superintendent, county education professionals (such as principals

¹ CBER. 2020. *Wayne County Community Learning Centers Program Evaluation: 2020 Data Analysis Report*. Huntington, WV: Center for Business and Economic Research, Marshall University.

² WVDE. 2017. "The 21st Century Community Learning Center Programs." *West Virginia Department of Education*. <http://wvde.state.wv.us/21stccclc/programs.html>

and teachers) and the strong partnership between them.³ Since 2009, the Program has served more than 2,540 students annually, and typically serves an average of 812 students per day. On average, approximately 1,134 students attend WCCLC programs for at least 30 days during the school year.

Data and Methods

Consistent with the prior analyses CBER analyzed academic performance of students who participated in the WCCLC program in the 2021-2022 school years and compared these results to prior years. Two cohorts of students were considered: 1) those with three years of recorded complete data, and 2) those with five years. School performance outcomes were measured by Grade Point Average (GPA) changes from individual course-level data collected from the West Virginia Education Information System (WVEIS) and provided by the WCCLC program.⁴

Each student's entry was evaluated for missing, incomplete, or unusable records to ensure data were consistent across years. Incomplete entries were excluded from the analysis. Observations were omitted if:

- Course grades were incomplete, or
- The student's WCCLC participation was for only one year.

GPA's for each student were calculated for the school year and compared with previous results. Changes in student GPA's were considered among all student participants⁵ in the WCCLC program and a subset of these participants that consisted of "At-Risk" students. Participants qualify as At-Risk if their GPA was less than 2.5.⁶ The numeric and percentage changes in each student's GPA from the first observed and most recent school years were calculated.⁷ Students with observed changes in GPA outside three standard deviations of the mean were excluded from the analyses to ensure representativeness of the data.

This study also considers GPA changes for any students who were consistently present in the WCCLC program for a minimum of 30 days each year beginning with the 2018-19 school years. This offers a short-term trend analysis intended to provide some context of WCCLC program impacts.

³ WVDE. 2015. "The 21st Century Community Learning Center Programs." *West Virginia Department of Education*. <http://wvde.state.wv.us/21stccclc/programs.html>

⁴ Student data across years was matched using Universal Student Identification numbers.

⁵ Students must have attended the WCCLC program for a minimum of 30 days during each school year to be included in the analysis.

⁶ This distinction was determined in conjunction with the WCCLC and carries over from the CBER (2014) methodology. For the three-year cohort analysis, 2019-20 GPA was used to determine "At-Risk". For the five-year cohort analysis "At-Risk" was determined based on 2017-18 GPA.

⁷ Grades reported to CBER differed in the current year relative to prior years with the inclusion of +/- distinctions, as opposed to only whole letter grades. Reported grades were converted to a 4-point scale.

Additional consideration is given to data on disciplinary action counts for the most recent, completed school year. These data represent counts of disciplinary measures based on student misconduct. Disciplinary actions range from tardiness to possession of weapons and aggressive conduct.

It is important to note that this study is descriptive, not causal. Results should be interpreted with care, particularly for the WVEIS data analysis. The absence of relevant variables in the current dataset limits the statistical accuracy of findings, and prevents attributing observed outcomes to WCCLC programming specifically.

Comparison of Previous and Current Samples

Comparisons of key data points among the previous and current samples indicate a **smaller sample size** for both all participants and an **smaller sample size** for At-Risk participants in the most recent year. The share of At-Risk participants (as measured by GPA in the concurrent school year reported) relative to all participants decreased in the current year. In the current sample, all participants experienced decreases in GPA on average; however, participants who began the year “At-Risk” experienced a smaller increase on average.

Table 1: Comparison of Key Data Points Previous and Current Samples

Analysis Year	All Participants		Entering At-Risk	
	2021	2022	2021	2022
Number of Students	1,659	1,134	576	303
Average Change in GPA (point)	-0.55	-0.32	-1.22	-0.96
Average Change in GPA (%)	-0.17%	-0.09%	-0.42%	-0.31%
Students with Increased GPA	20.7%	29.0%	4.0%	8.0%

Discussion of Results

To illustrate GPA improvements, two cohorts of students were examined – those in the program for three consecutive years and those in the program for five consecutive years. For the following analyses students with GPAs below 2.5 in the first year of the respective sample are considered “At-Risk”.

As an additional refinement to the data for the update, students with GPAs of 3.7 or higher for each year (“A-students”) were also removed from the cohort analyses. As these students perform consistently well academically their improvement range is limited, thus the analysis is conditional on students with improvement potential.

At-risk participants make up roughly **29 percent of the three-year cohort and 31 percent of the four-year cohort**. Within the three-year cohort about 29 percent of

students measured GPA improvements from year one to year three and 5 percent from year one to five.

Table 2: Sample Sizes

	3- Year Cohort	5-Year Cohort
Full Sample	1,007	742
No A-Students	127	192
At Risk Only	288	233
Sustained Improvement	288	37

Three-Year Cohort Analysis: Participant Performance Outcomes

In analyzing data on all participants considered, the data indicate decreases among At-Risk participants and all participants overall as measured by average changes in GPA. On average, the measured changes are small, less than a one-point loss for both groups. A larger share of all students (29.0 percent) experienced improvements in GPA, relatively to At-Risk participants (8.0 percent).

Table 3: Performance Outcomes, change from 2020-21 to 2021-22

	All Participants	At-Risk Participants
Number of Students	1,133	296
Average Change in GPA (point)	-0.32	-0.96
Average Change in GPA (%)	-0.09%	-0.31%
Students with Increased GPA	29.0%	8.0%

Examining only those students who experienced GPA improvement further illustrates larger proportional changes for all students versus At-Risk. While the number of At-Risk students with improvement was substantially smaller than all students and students Not-At-Risk, it should be noted that At-Risk experienced a greater average change in GPA points and percentage.

Table 4: Performance Outcomes for Participants with GPA Improvement 2020-21 to 2021-22

	All Student with Improvement	At-Risk with Improvement	Not At-Risk with Improvement
Number of Students	330	24	306
Proportion	29.0%	2.0%	27.0%
Average Change in GPA (point)	0.33	0.28	0.34
Average Change in GPA (%)	13.4%	18.6%	13.0%

In addition to students who transitioned and stayed out of At-Risk for two years, the sample permits observing students with sustained improvement, or consecutive increases in GPA over a two-year period. Consistent with patterns observed previously, At-Risk participants displayed larger increases in GPA relative to their counterparts. **For those with sustained improvement, GPAs for At-Risk students increased 0.41 points on average for the two-year period.**

Table 5: Students with Sustained Improvement, Two-Year Change

	Not At-Risk	At-Risk Participants
<i>Number of Students</i>	173	21
<i>Average Change in GPA (point)</i>	0.44	0.41
<i>Average Change in GPA (%)</i>	12.0%	29.0%

Disciplinary Action Analysis

Counts for disciplinary actions for the 2021-22 school year provide additional insight into potential benefits of the WCCLC program. Actions for which disciplinary counts are collected range in severity from items such as skipping class, insubordination, possession of weapons and illegal substances to skipping detention and tardiness. Thirty-three categories of disciplinary counts were reported for the current analysis. The most common infraction was “Skipping Class”.

To further characterize incidences of discipline counts, data were merged with student GPA. As noted in Table 6, participants who were considered “At-Risk” in the current school year were more likely to have more disciplinary counts compared with all participants, but only slightly. Additionally, among students with disciplinary counts, At-Risk participants averaged approximately 1 more infraction than all students.

Table 6 Discipline Counts by Student Group

	<i>All Participants</i>	<i>At-Risk</i>
<i>Number of Students</i>	1,134	303
<i>Average Number of Disciplinary Counts</i>	1.11	1.93
<i>Students with At Least One Disciplinary Count</i>	345	156
<i>Average Number of Disciplinary Counts</i>	2.97	4.06

Conclusions

When examining samples of students with at least three years of participation in the program, the data indicate improvements with respect to GPA increases for students who enter the program with At-Risk status. Some students maintain improvement in consecutive years, as measured by consistent GPA improvement or as permanently transitioning out of “At-Risk” status. Students displaying these types of continued success exhibit the greatest gains in GPA.

Analysis of disciplinary data indicates that students who are “At-Risk” when they enter the program are more likely to have disciplinary infractions. However, students who experience sufficient improvements in GPA to transition out of this status by the end of the year have almost half as many disciplinary counts on average as students who stay at or become at risk. Students who become at risk by the end of the school year have the greatest number of disciplinary counts on average.

Thus, the data indicates WCCLC participants who begin the program with “At-Risk” status exhibit proportionally larger gains in GPA than their counterparts. Further, students who are able to maintain improvements, either by continual increases in GPA or by remaining out of the “At-Risk” category, exhibit significant average gains in GPA. Additionally, students who transition out of the “At-Risk” category are associated with fewer disciplinary counts.

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