City Study 2021:

NEWARK

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REPORT OVERVIEW

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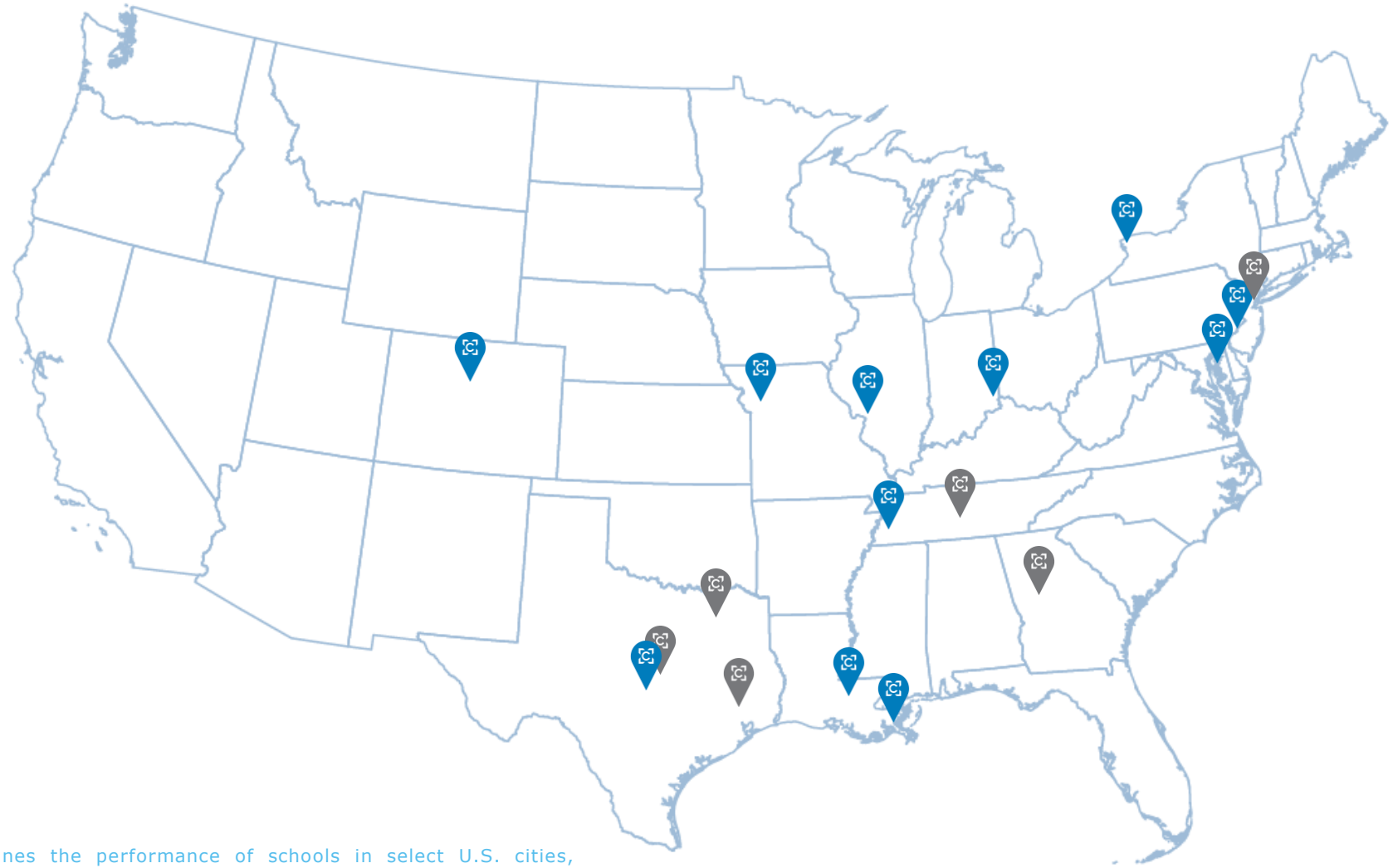
About The City Studies Project



The City Studies project examines the performance of schools in select U.S. cities, including Newark. We study the academic progress of students as the measure of school performance.

Cohort 1

Cohort 2

Sectors of Schools

COMMUNITIES MAY HAVE UP TO THREE SECTORS OF SCHOOLS

CHARTER SCHOOLS

Public schools operated independently from the traditional school district, with autonomy in adapting school designs and held accountable for education results.

Charter Management Organizations (CMOs)

Organizations holding the charter and overseeing the operation of at least three charter schools.

Independent Charter Schools

Organizations holding the charter and overseeing the operation of a single or two charter schools.

SELECTIVE MAGNET SCHOOLS

District-run schools with focused themes and academically selective admission.

OTHER DISTRICT-RUN SCHOOLS

Public schools not belonging to any of above two types.

Research Question and Analyses

IN THIS REPORT WE EXAMINE ACADEMIC PERFORMANCE IN NEWARK USING DATA FROM THE SCHOOL YEARS 2014-15 THROUGH 2017-18. THERE ARE THREE LEVELS OF ANALYSIS.

01

Overall performance in Newark schools over three years.

02

Performance for Newark charter schools, Newark magnet schools and the rest of Newark Public schools over three years.

03

Performance in the 2017-2018 school year **by school type, race, poverty status, English language learner (ELL) status, special education status and gender.**

WE MAKE TWO SETS OF COMPARISONS.

- The performance of Newark students is benchmarked against the state average performance, accounting for student characteristics.
- The performance of charter school students and the performance of magnet school students within Newark are then compared to that of similar traditional public school (district school) students within Newark.

Measure of Academic Performance

ACHIEVEMENT VS. GROWTH

Achievement scores capture what a student knows at a point in time. They are influenced by students' prior conditions in addition to schools' contributions.

Growth scores indicate how much progress a student makes from one year to the next. Growth scores allow us to zero in on the contributions of schools separately from other factors that affect point-in-time scores.

IN THIS STUDY WE MEASURE ACADEMIC PERFORMANCE AS HOW MUCH GROWTH STUDENTS MAKE FROM ONE YEAR TO THE NEXT.

We analyze student growth in standard deviation units so that the results can be assessed for statistical differences. The full set of findings appear in the Appendix.

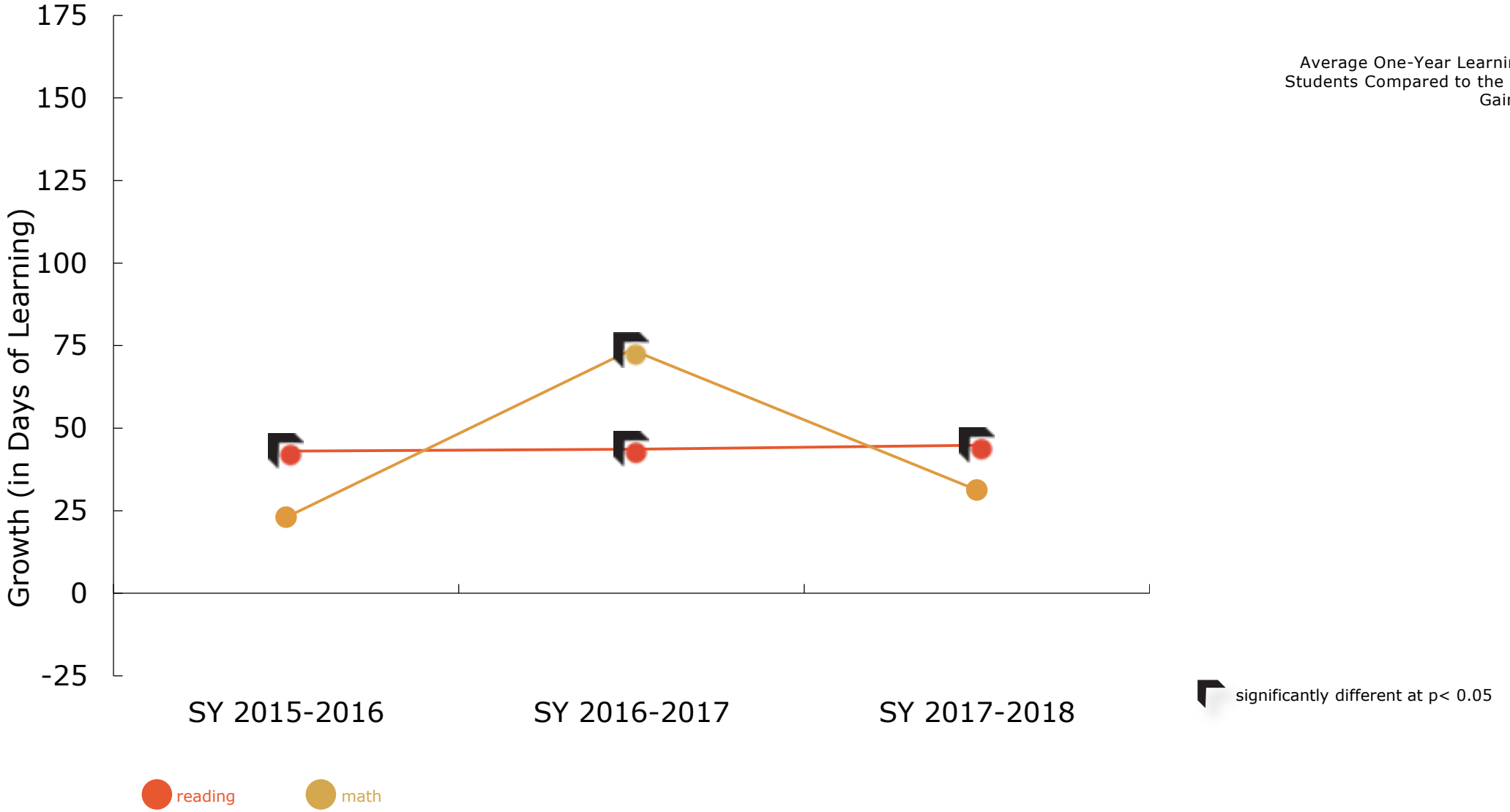
In the following graphs of findings, we transform growth from standard deviation units into days of learning based on a typical 180-day school year.

RESEARCH FINDINGS

02

Research Findings > Overall Newark Results > Reading & Math

Average One-Year Learning Gains for All Newark Students Compared to the State Average Learning Gains, by Year and Subject



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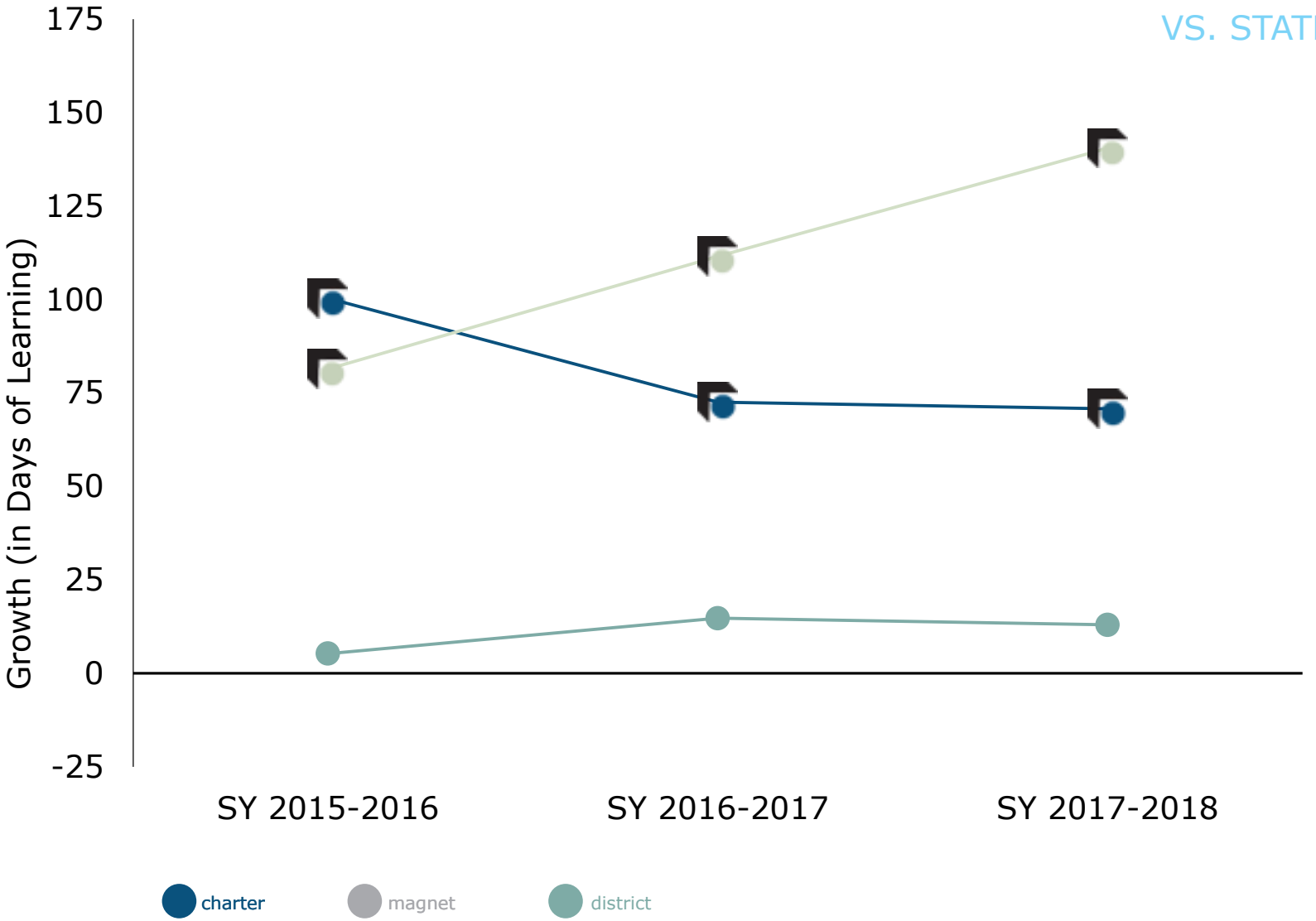
Research Findings > Sector Analysis > Reading

VS. STATE & COMPARISON WITHIN NEWARK

Learning Gains in Reading for Students in Newark Charter Schools, Newark Magnet Schools, and Newark District Schools Compared to the State Average Learning Gains, by Year



Tests of Differences			
Reading	'15-'16	'16-'17	'17-'18
Charter vs. District	⌜	⌜	⌜
Magnet vs. District		⌜	⌜
Charter vs. Magnet			

⌜ significantly different at p< 0.05

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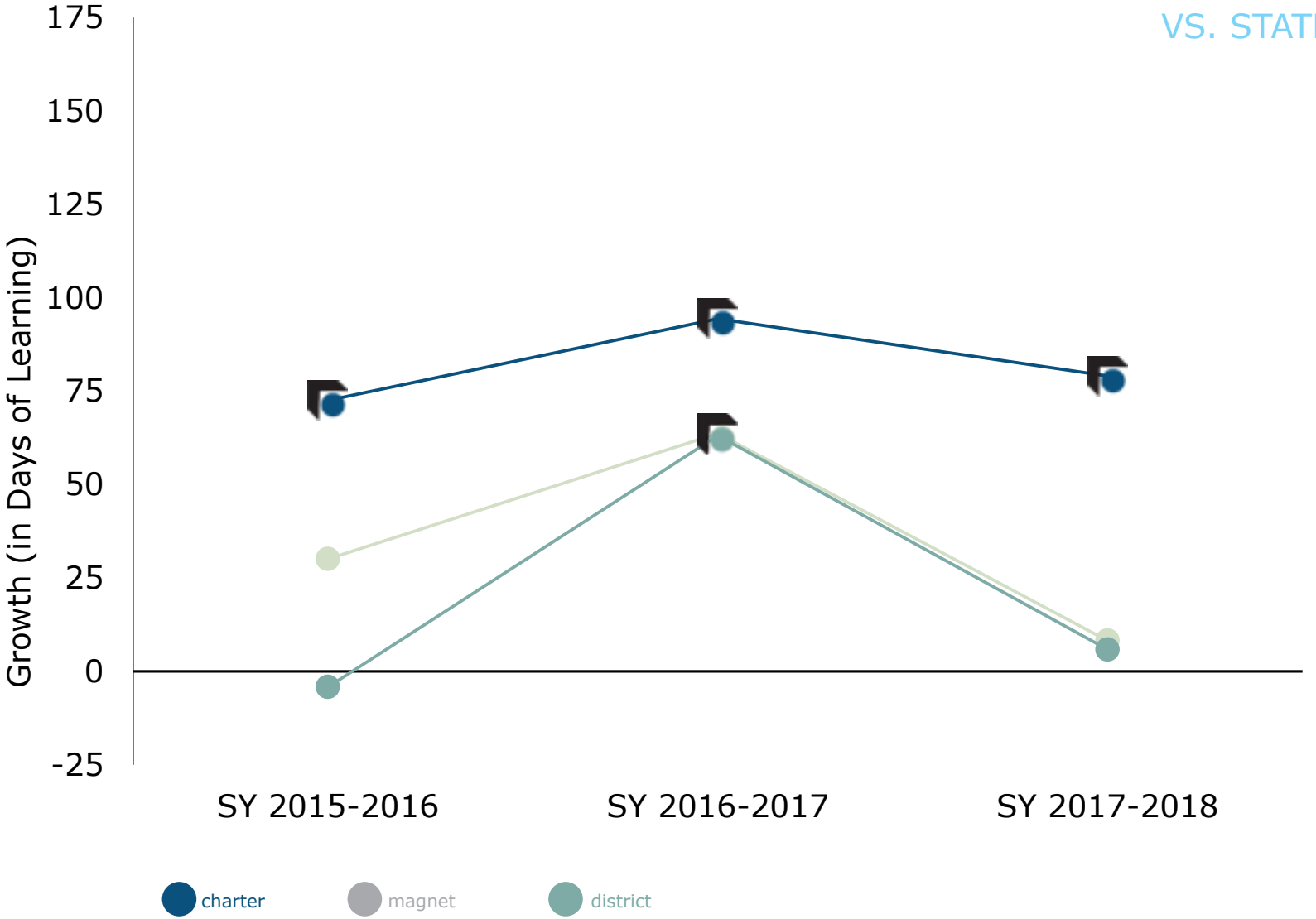
Research Findings > Sector Analysis > Math

VS. STATE & COMPARISON WITHIN NEWARK

Learning Gains in Math for Students in Newark Charter Schools, Newark Magnet Schools, and Newark District Schools Compared to the State Average Learning Gains, by Year



Tests of Differences			
Math	'15-'16	'16-'17	'17-'18
Charter vs. District	⌜		⌜
Magnet vs. District			
Charter vs. Magnet			⌜

⌜ significantly different at p< 0.05

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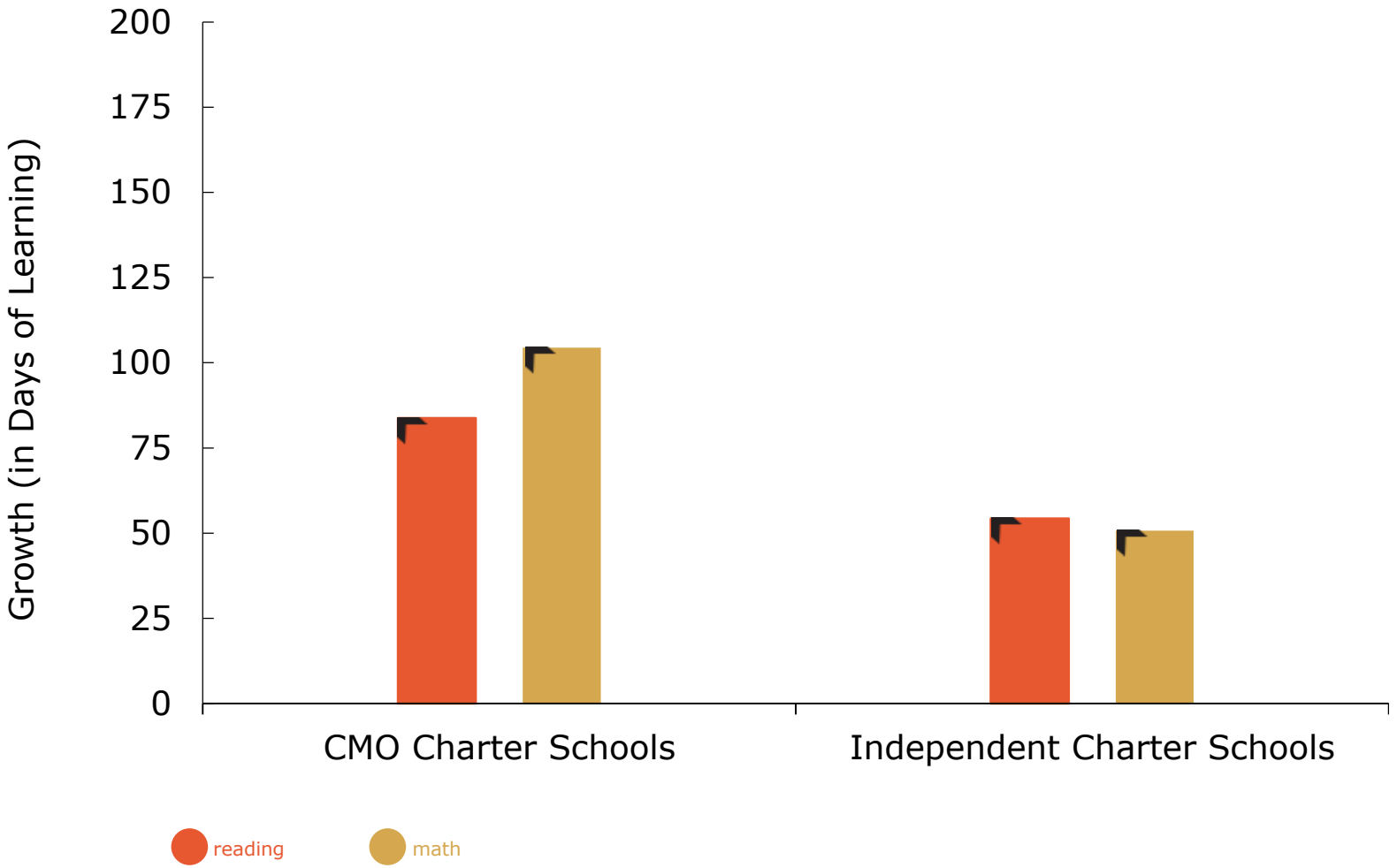
Research Findings > Charter Subsector Analysis
> vs. state & comparison within Newark

Relative Learning Gains for Students in Newark CMO-Affiliated Charter Schools and Independent Newark Charter Schools Compared to the Average Learning Gains for All Student in the State, by Subject



Tests of Differences	
Reading	sig
CMOs vs Independent Charter Schools	
Math	
CMOs vs Independent Charter Schools	⌜

⌜ significantly different at p< 0.05

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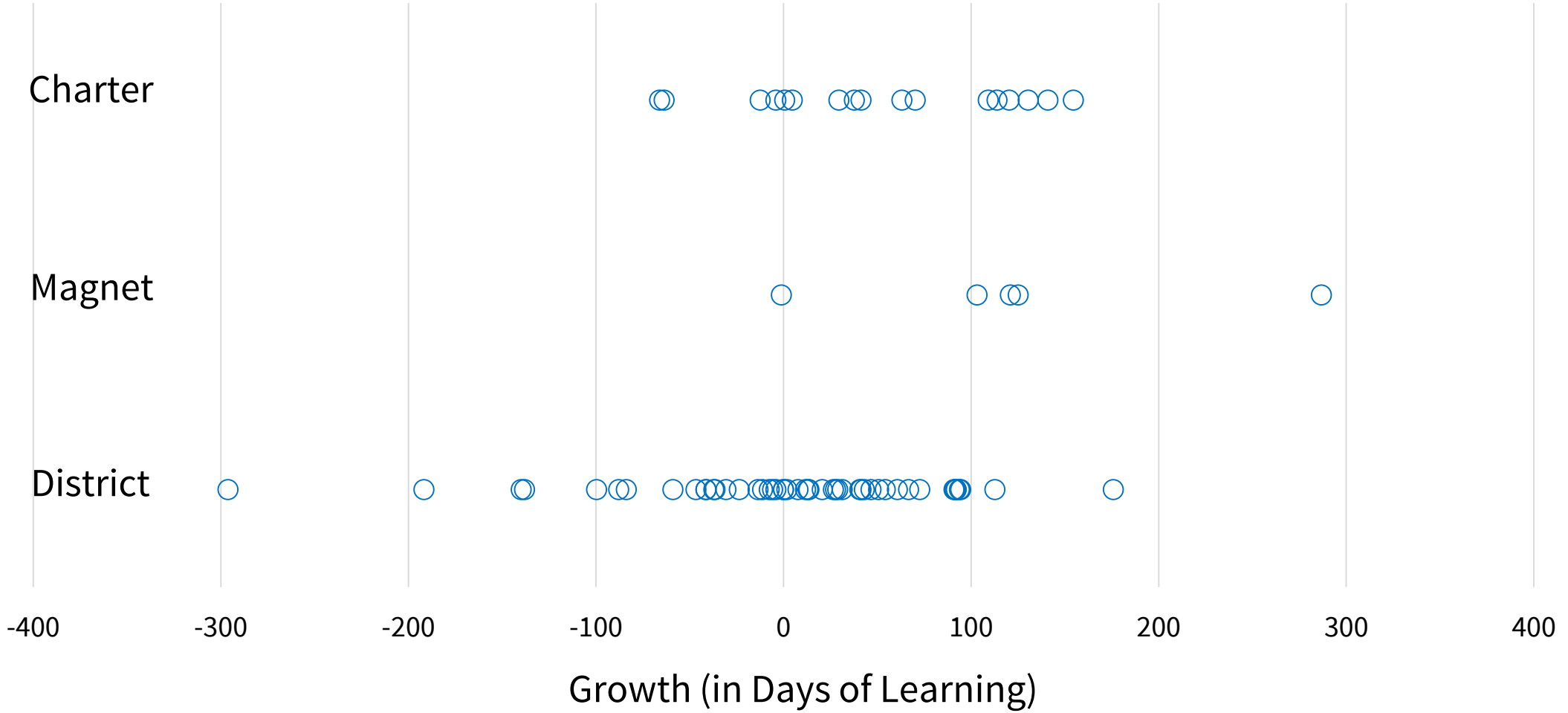
Research Findings > School-Level Performance by Sector > Reading



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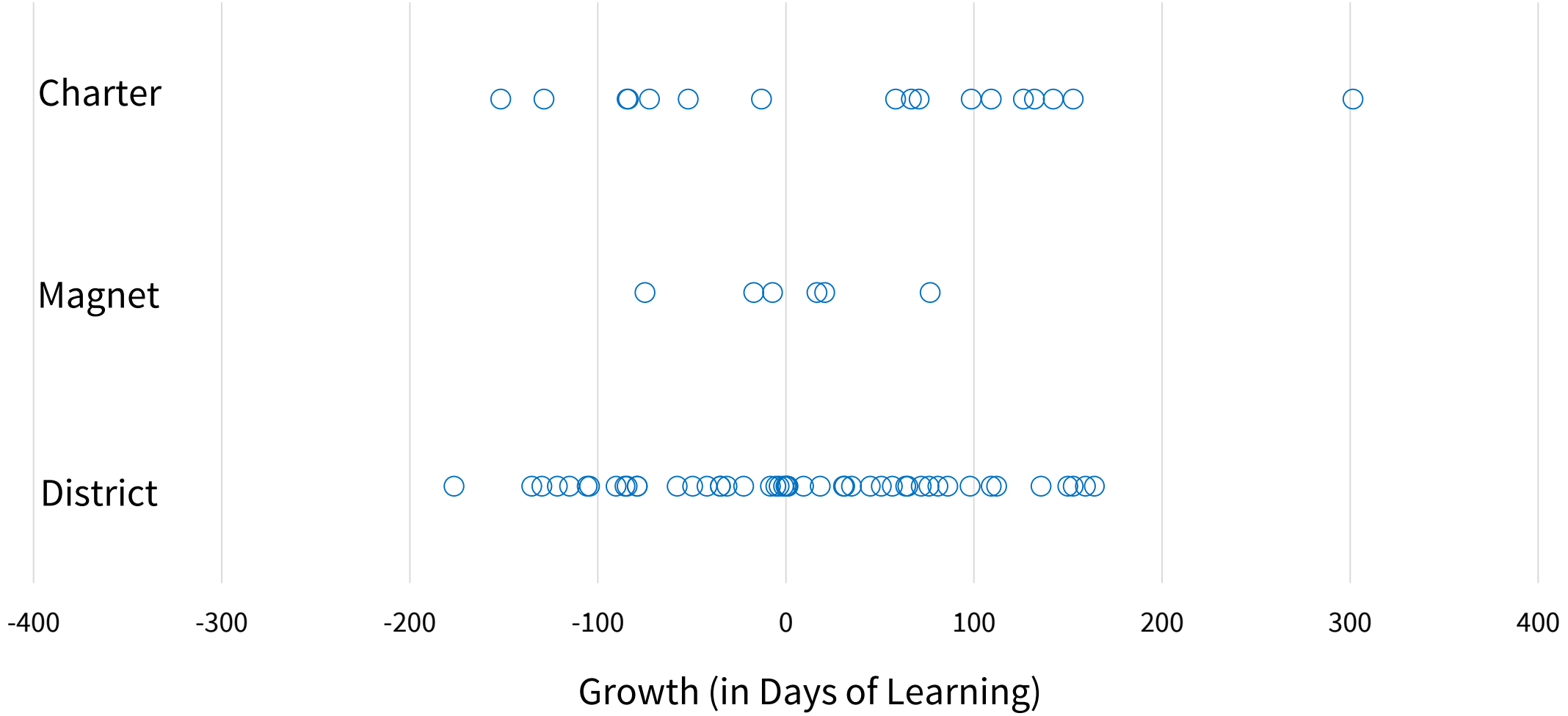
Research Findings > School-Level Performance by Sector

>Math



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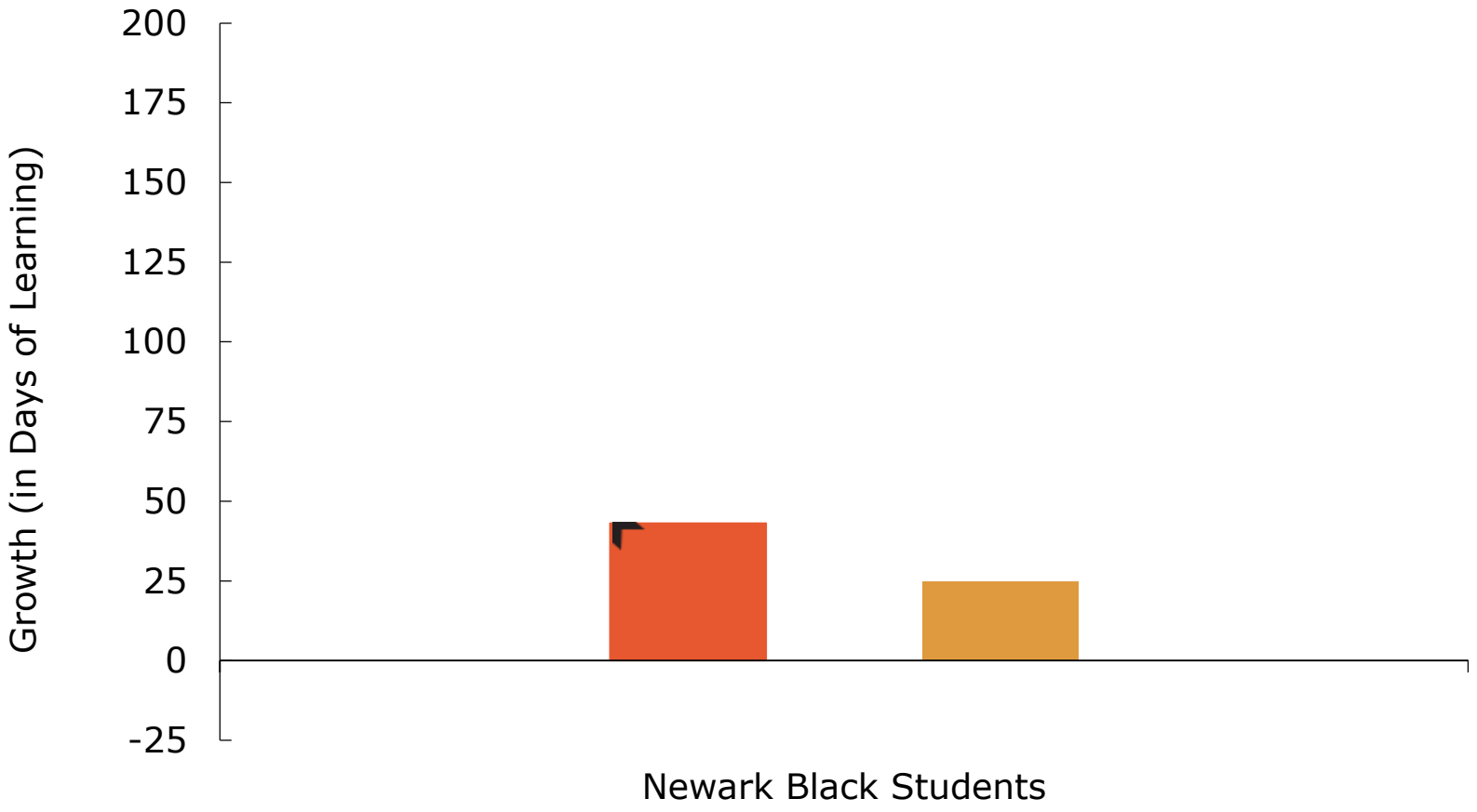
Research Findings > Student Subgroup Analysis > Black Students

ALL VS. STATE

Learning Gains for All Newark Black Students Compared to the Average Learning Gains of Black Students Statewide, by Subject



significantly different at p< 0.05

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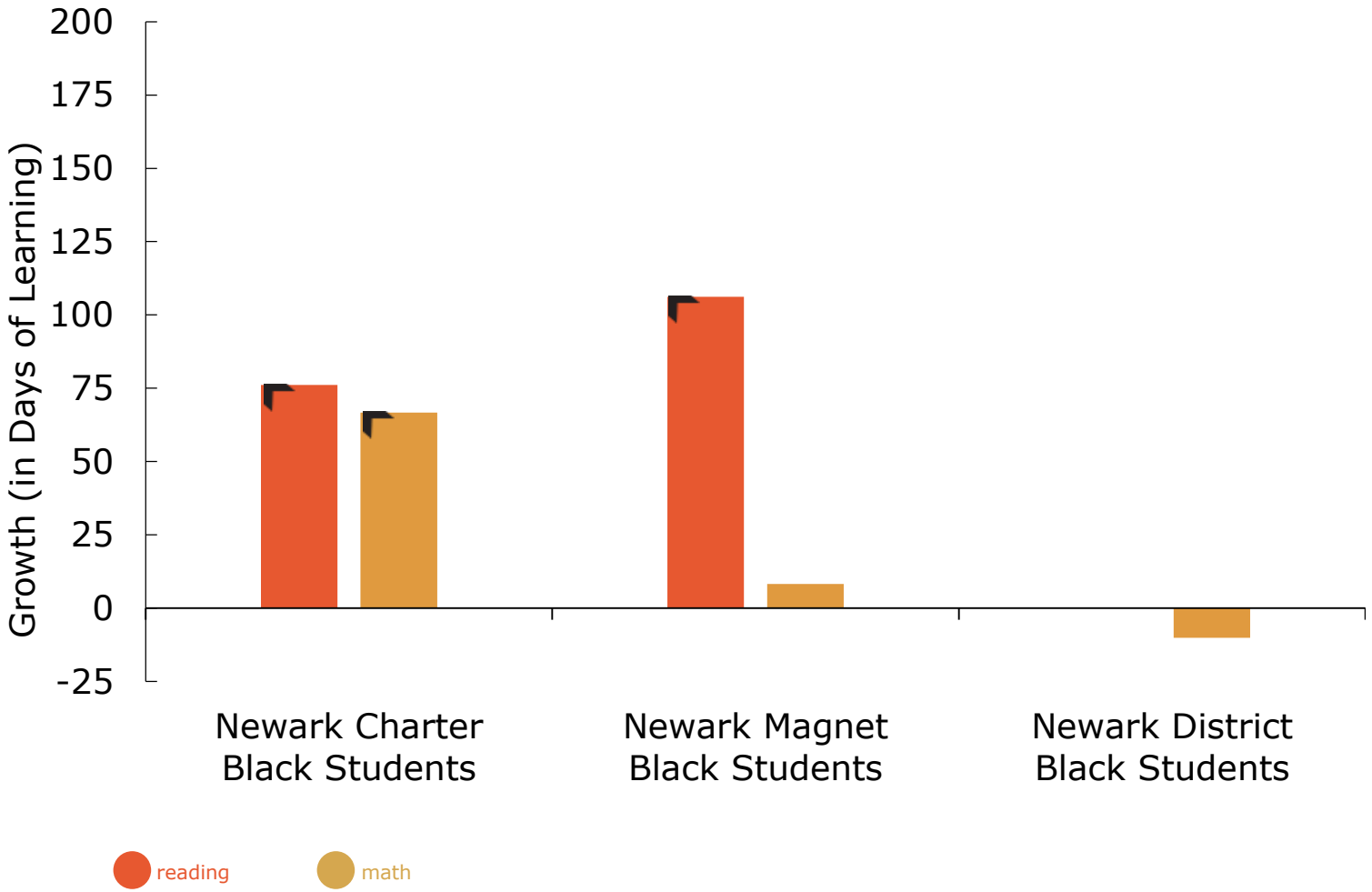
Research Findings > Student Subgroup Analysis > Black Students

VS. STATE BY SECTOR & COMPARISON WITHIN NEWARK

Learning Gains for Black Students in Newark Charter Schools, Black Students in Newark Magnet Schools, and Black Students in Newark District Schools Compared to the Average Learning Gains of Black Students Statewide, by Subject



Tests of Differences	sig
Reading	
Charter Black vs. District Black	⌜
Magnet Black vs. District Black	⌜
Math	
Charter Black vs. District Black	⌜
Magnet Black vs. District Black	

⌜ significantly different at p< 0.05

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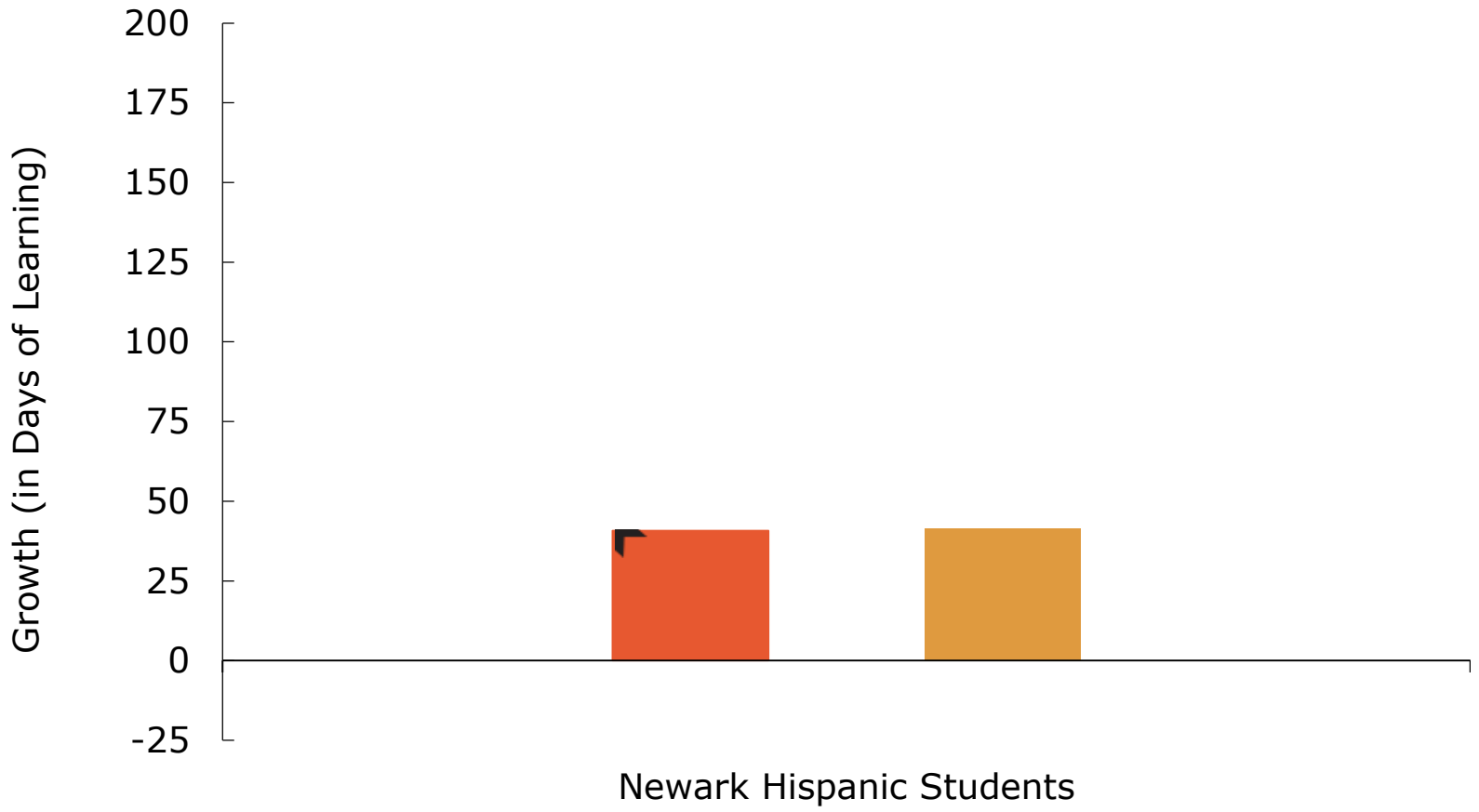
Research Findings > Student Subgroup Analysis > Hispanic Students

ALL VS. STATE

Learning Gains for All Newark Hispanic Students Compared to the Average Learning Gains of Hispanic Students Statewide, by Subject



significantly different at p< 0.05

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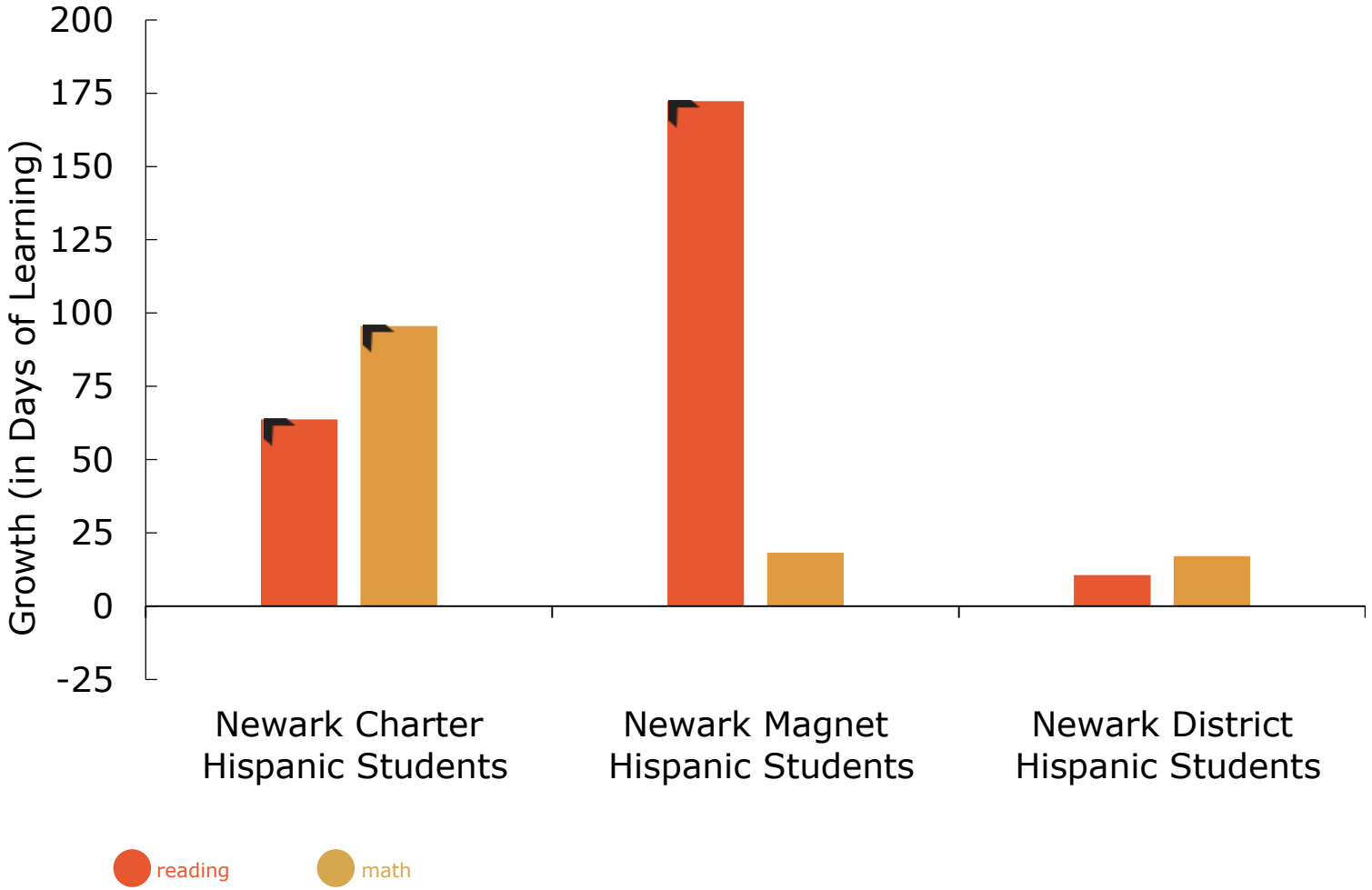
Research Findings > Student Subgroup Analysis > Hispanic Students

VS. STATE BY SECTOR & COMPARISON WITHIN NEWARK

Learning Gains for Hispanic Students in Newark Charter Schools, Hispanic Students in Newark Magnet Schools, and Hispanic Students in Newark District Schools Compared to the Average Learning Gains of Hispanic Students Statewide, by Subject



Tests of Differences	
Reading	sig
Charter Hispanic vs. District Hispanic	⌜
Magnet Hispanic vs. District Hispanic	⌜
Math	
Charter Hispanic vs. District Hispanic	⌜
Magnet Hispanic vs. District Hispanic	

⌜ significantly different at p< 0.05

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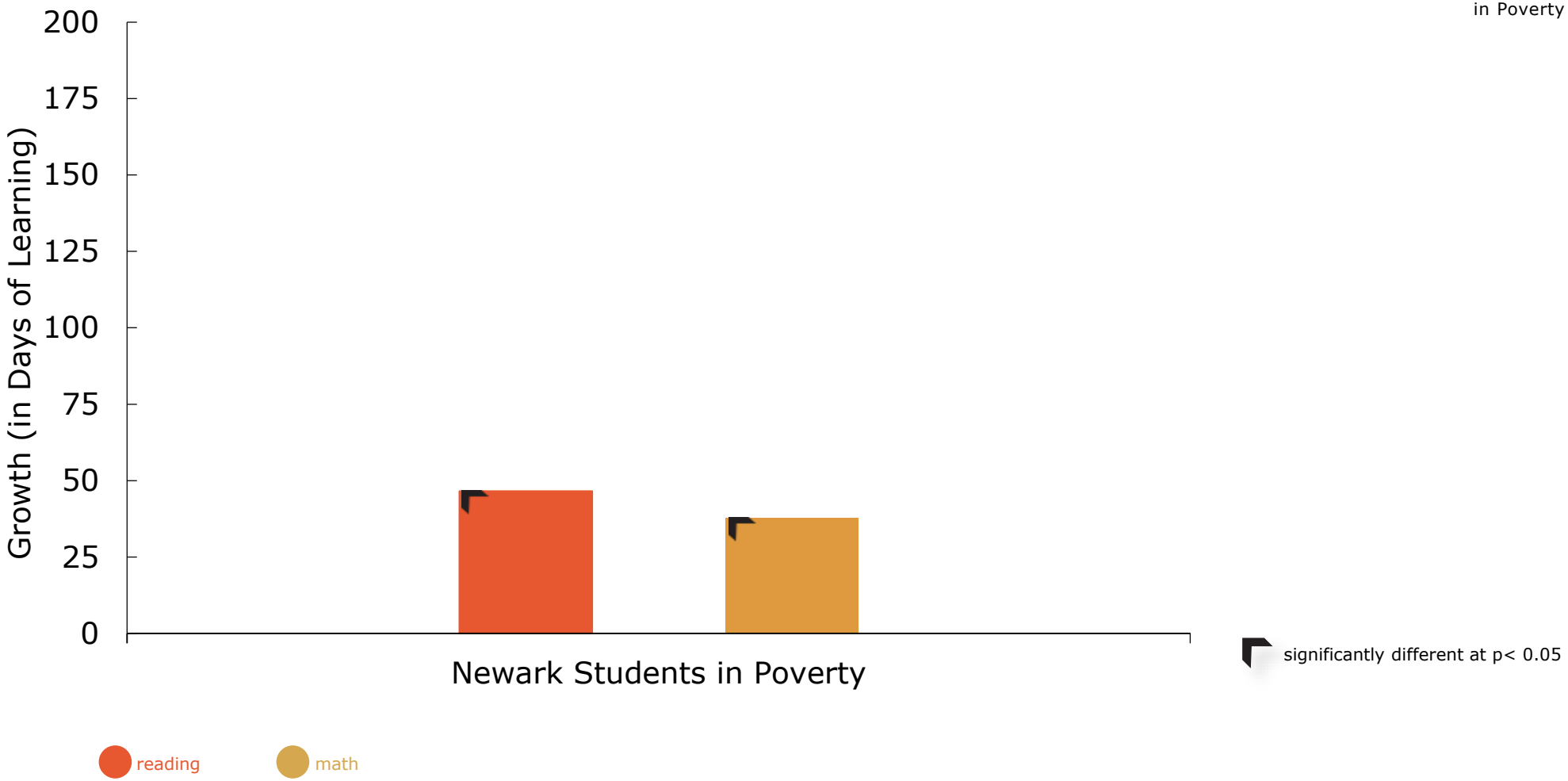
Research Findings > Student Subgroup Analysis
> Students in Poverty
ALL VS. STATE

Learning Gains for All Newark Students in Poverty Compared to the Average Learning Gains of Students in Poverty Statewide, by Subject



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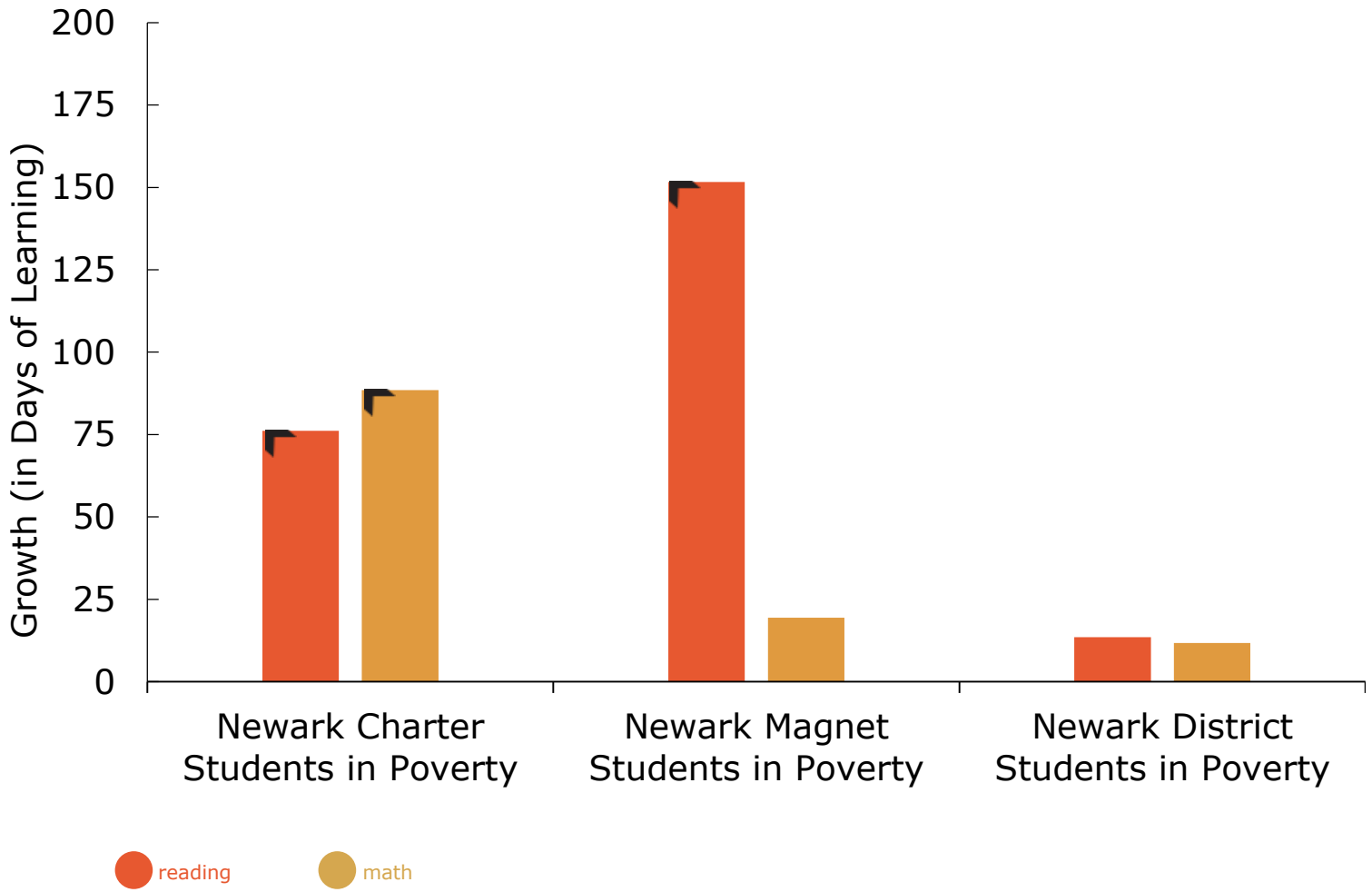
Research Findings > Student Subgroup Analysis
> Students in Poverty
VS. STATE BY SECTOR & COMPARISON WITHIN NEWARK

Learning Gains for Newark Charter School Students in Poverty, Newark Magnet School Students in Poverty, and Newark District School Students in Poverty Compared to the Average Learning Gains of Students in Poverty Statewide, by Subject



Tests of Differences	sig
Reading	
Charter Poverty vs. District Poverty	⌜
Magnet Poverty vs. District Poverty	⌜
Math	
Charter Poverty vs. District Poverty	⌜
Magnet Poverty vs. District Poverty	

⌜ significantly different at p< 0.05

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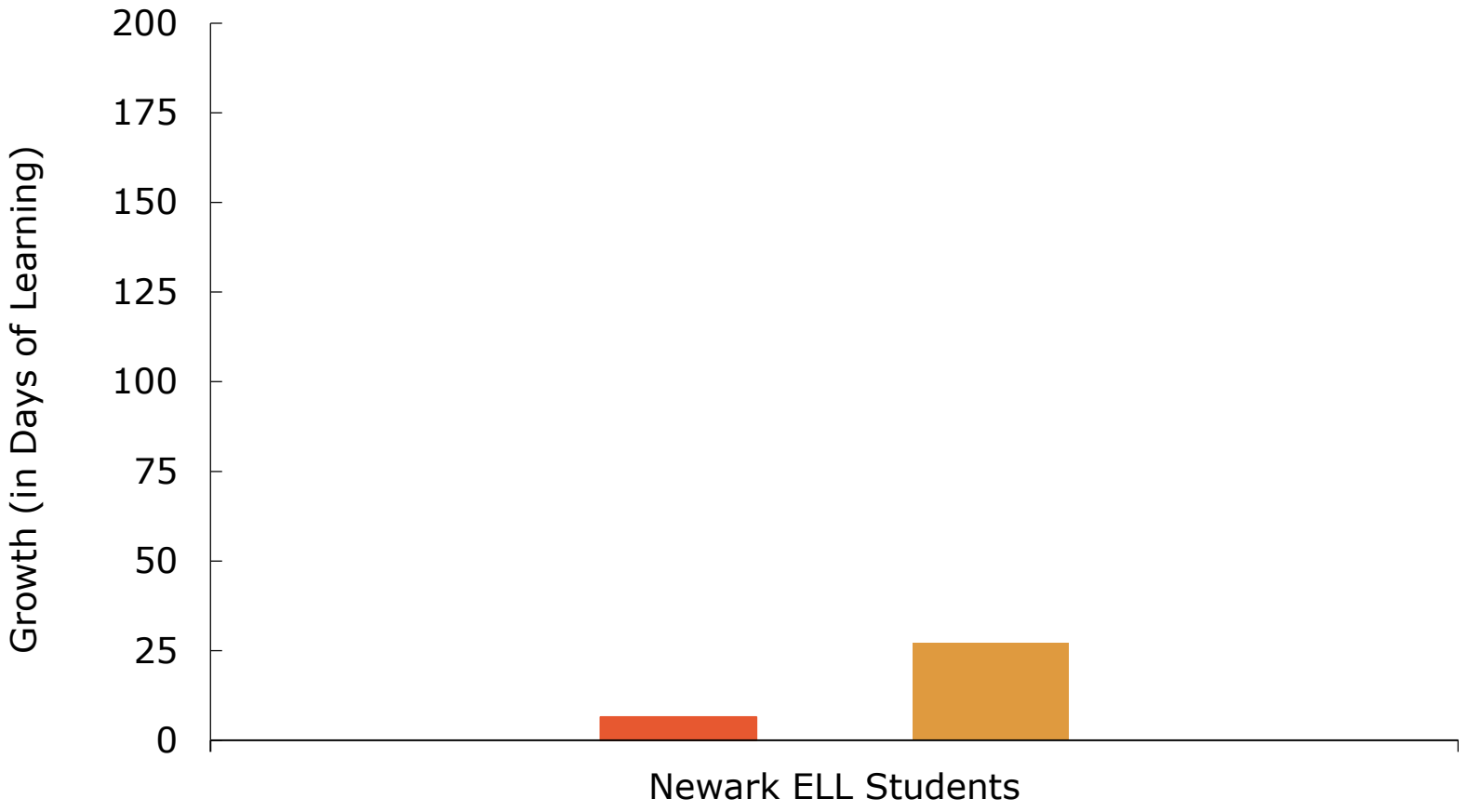
Research Findings > Student Subgroup Analysis

> ELL Students

ALL VS. STATE

Learning Gains for All ELL Students in Newark Compared to the Average Learning Gains of ELL Students Statewide, by Subject



significantly different at p< 0.05

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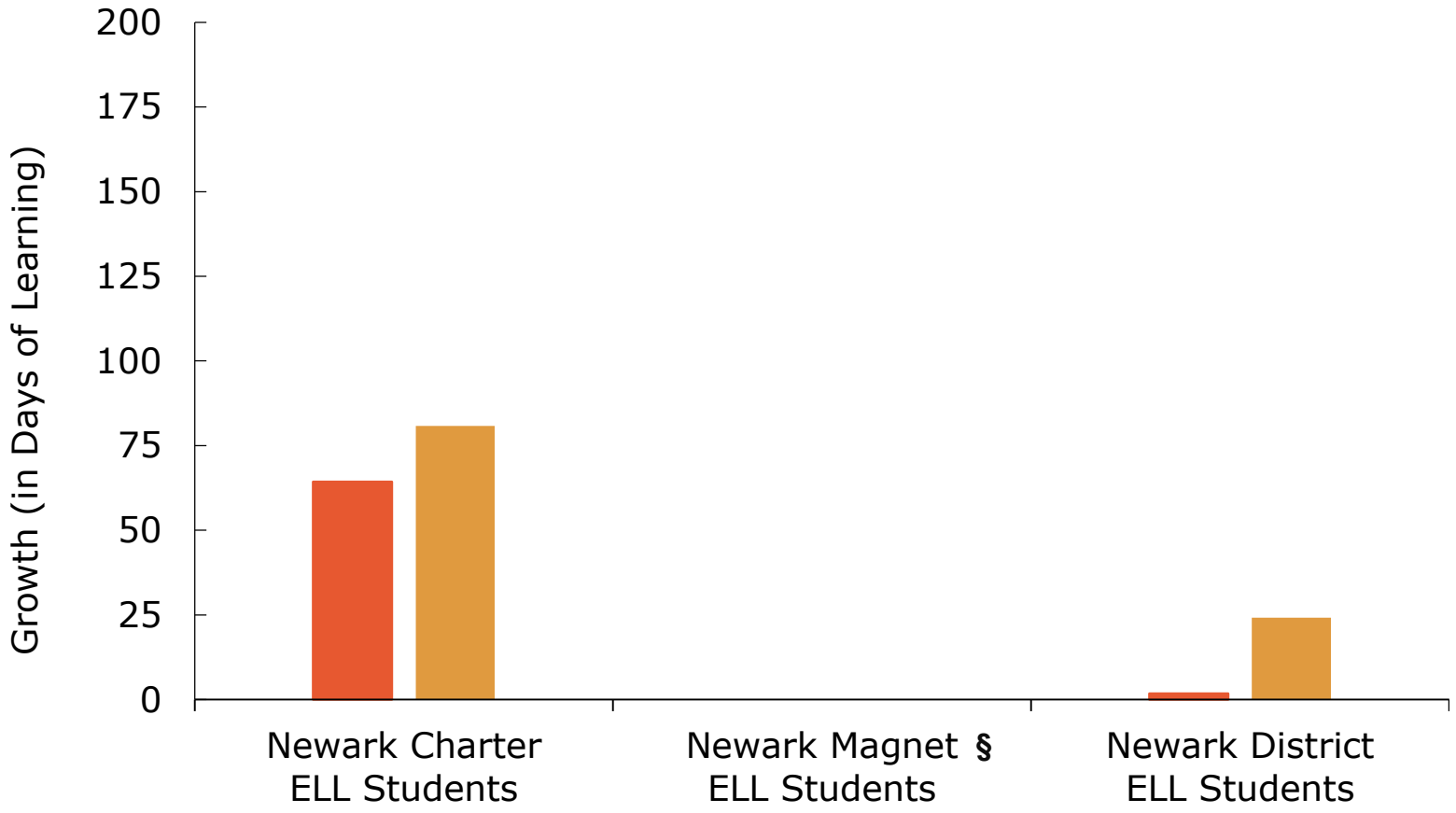
Research Findings > Student Subgroup Analysis > ELL Students

VS. STATE BY SECTOR & COMPARISON WITHIN NEWARK

Learning Gains for ELL Students in Newark Charter Schools, ELL Students in Newark Magnet Schools, and ELL Students in Newark District Schools Compared to the Average Learning Gains of ELL Students Statewide, by Subject



Tests of Differences	
Reading	sig
Charter ELL vs. District ELL	
Magnet ELL vs. District ELL§	
Math	
Charter ELL vs. District ELL	
Magnet ELL vs. District ELL§	

significantly different at p< 0.05

§ Redacted to comply with the state's suppression rule of small sample size.

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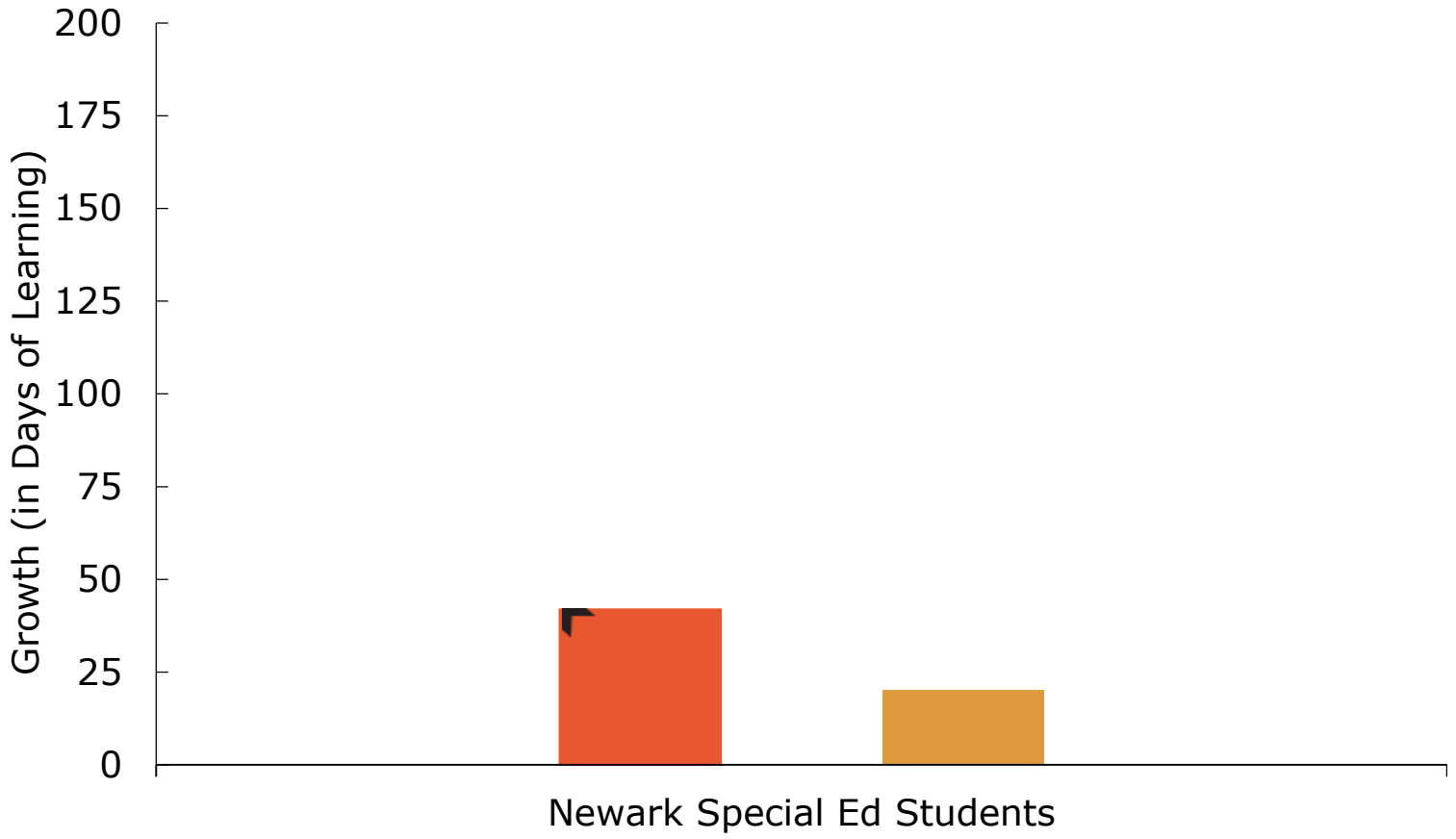
Research Findings > Student Subgroup Analysis > Special Ed Students

ALL VS. STATE

Learning Gains for All Newark Students in Special Education Compared to the Average Learning Gains of Students in Special Education Statewide, by Subject



significantly different at p< 0.05

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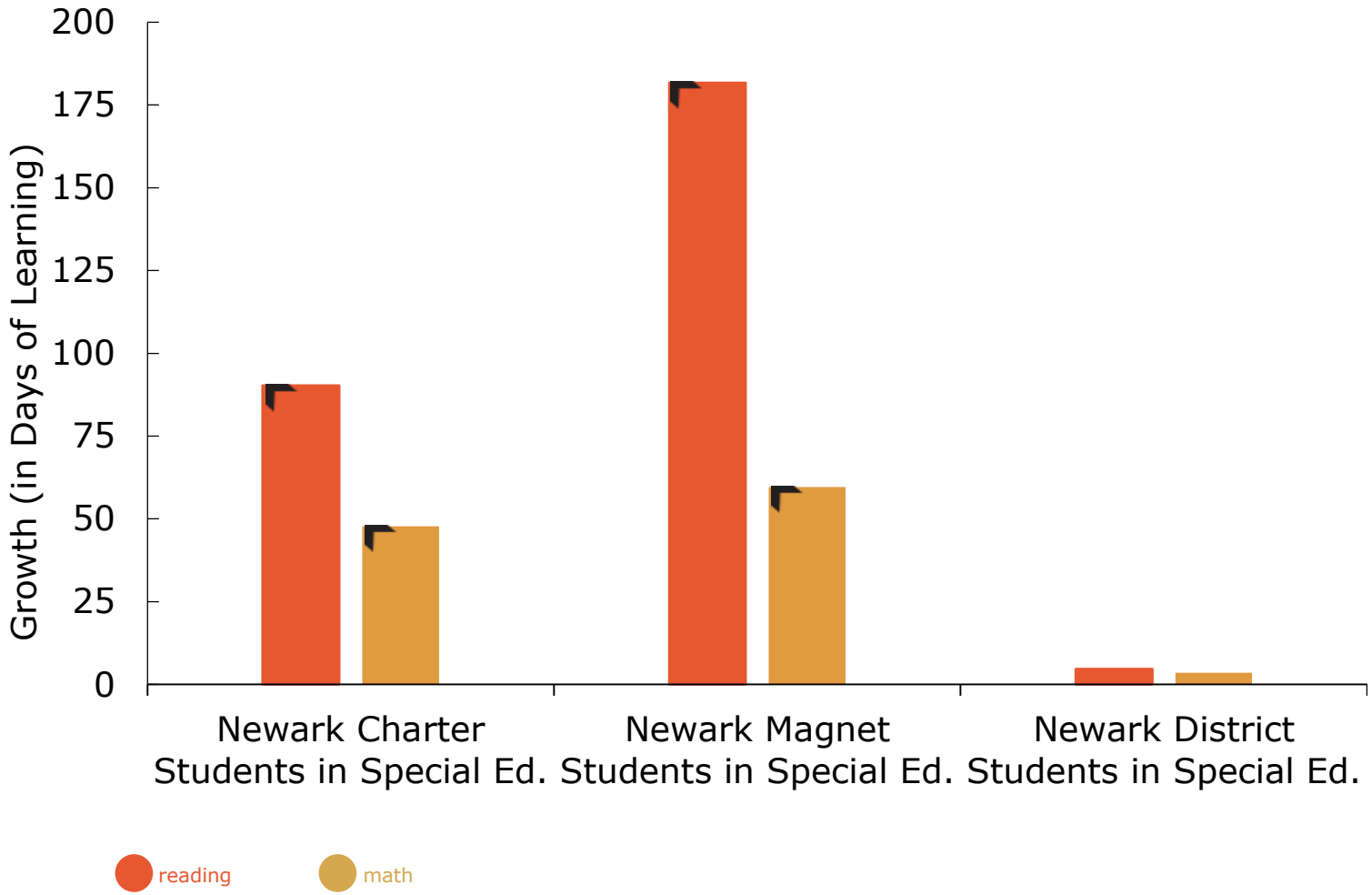
Research Findings > Student Subgroup Analysis > Special Ed Students

VS. STATE BY SECTOR & COMPARISON WITHIN NEWARK

Learning Gains for Newark Charter School Students in Special Ed., Newark Magnet School Students in Special Ed., and Newark District School Students in Special Ed. Compared to the Average Learning Gains of Students in Special Ed. Statewide, by Subject



Tests of Differences	
Reading	sig
Charter Sped vs. District Sped	⌜
Magnet Sped vs. District Sped	⌜
Math	
Charter Sped vs. District Sped	⌜
Magnet Sped vs. District Sped	⌜

⌜ significantly different at p< 0.05

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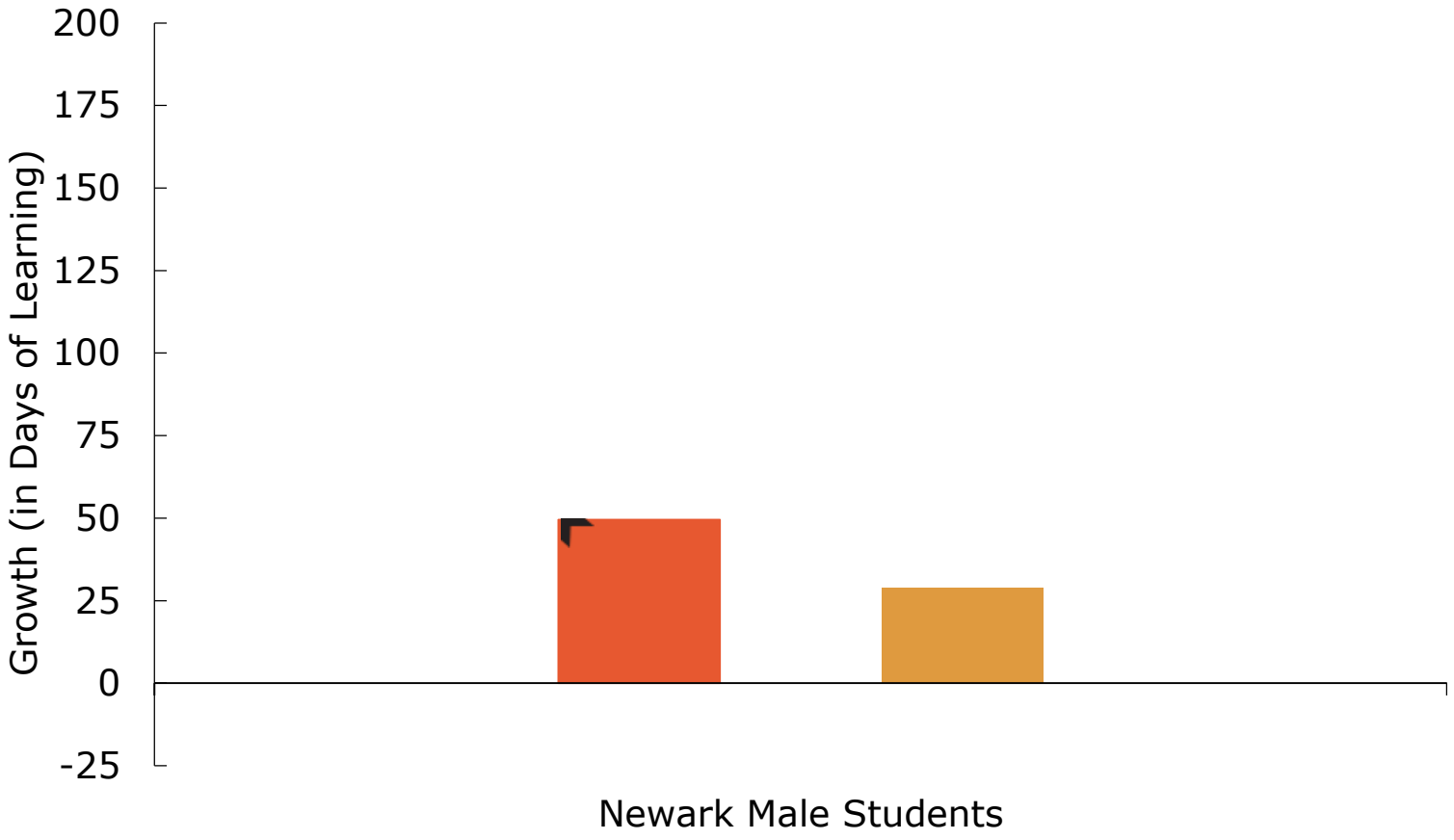
Research Findings > Student Subgroup Analysis

> Male Students

ALL VS. STATE

Learning Gains for All Newark Male Students Compared to the Average Learning Gains of Male Students Statewide, by Subject



significantly different at p< 0.05

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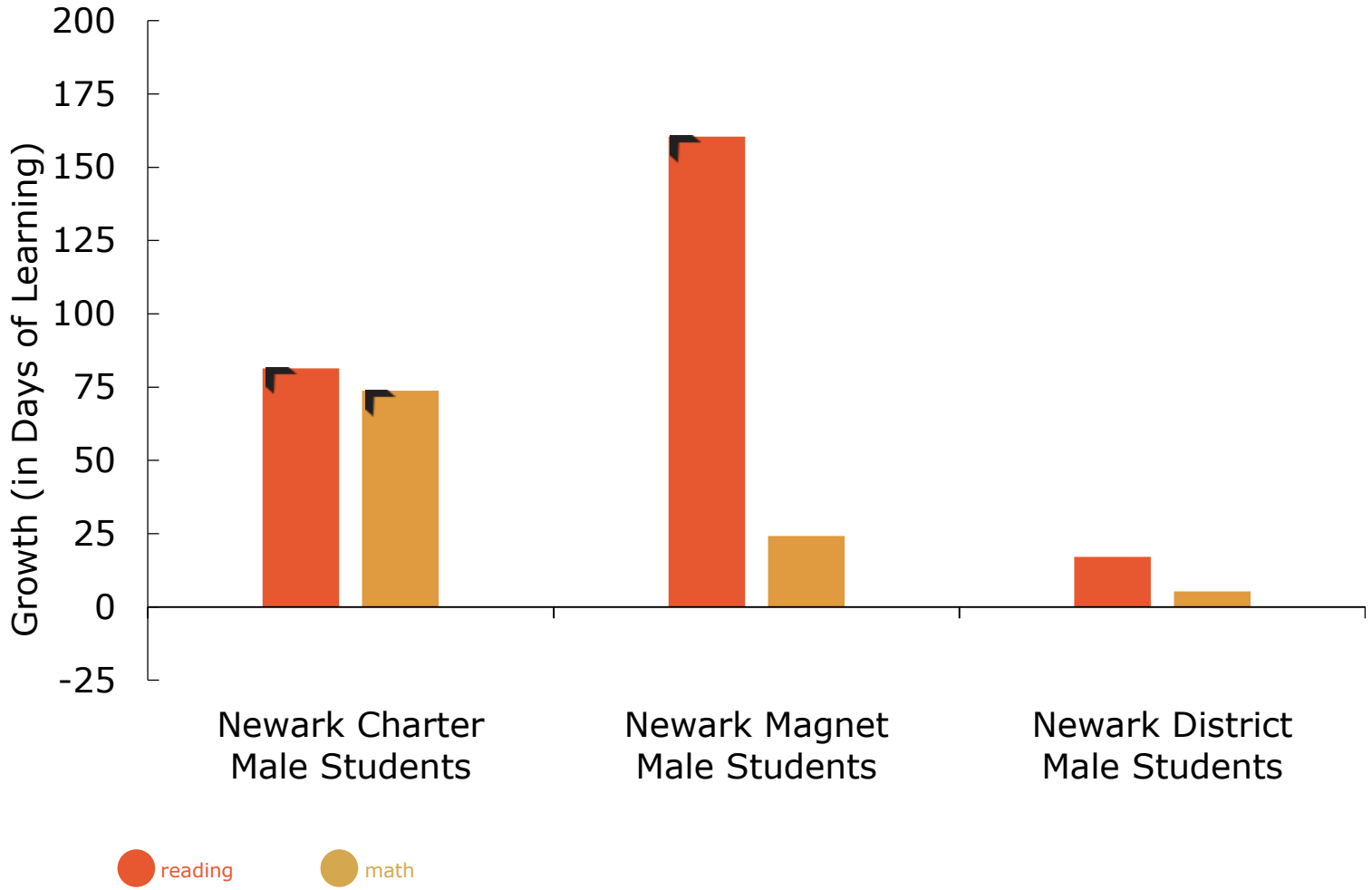
Research Findings > Student Subgroup Analysis > Male Students

VS. STATE BY SECTOR & COMPARISON WITHIN NEWARK

Learning Gains for Male Students in Newark Charter Schools, Male Students in Newark Magnet Schools, and Male Students in Newark District Schools Compared to the Average Learning Gains of Male Students Statewide, by Subject



Tests of Differences	sig
Reading	
Charter Male vs. District Male	⌜
Magnet Male vs. District Male	⌜
Math	
Charter Male vs. District Male	⌜
Magnet Male vs. District Male	

⌜ significantly different at p< 0.05

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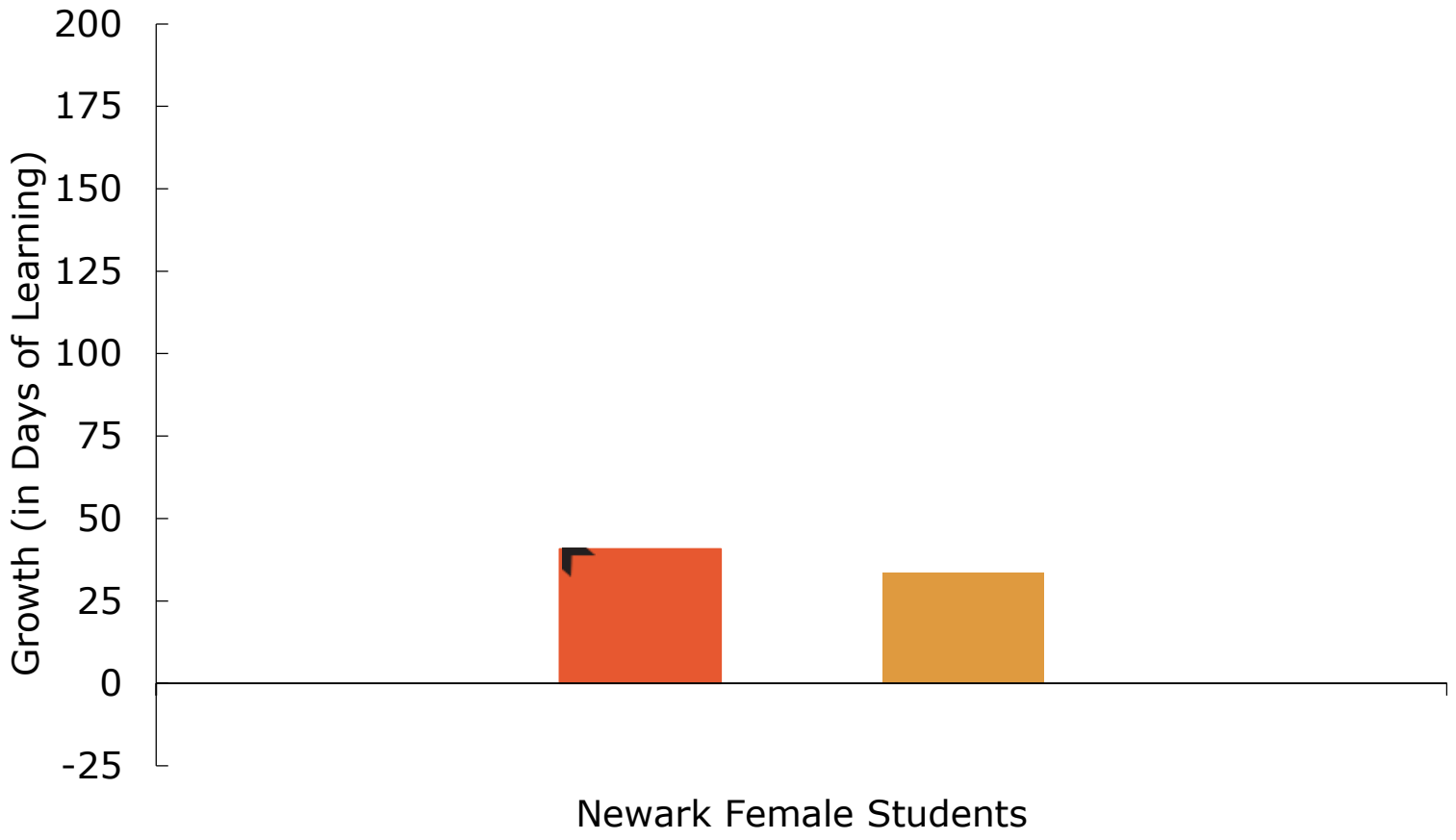
Research Findings > Student Subgroup Analysis > Female Students

ALL VS. STATE

Learning Gains for All Newark Female Students Compared to the Average Learning Gains of Female Students Statewide, by Subject



significantly different at p< 0.05

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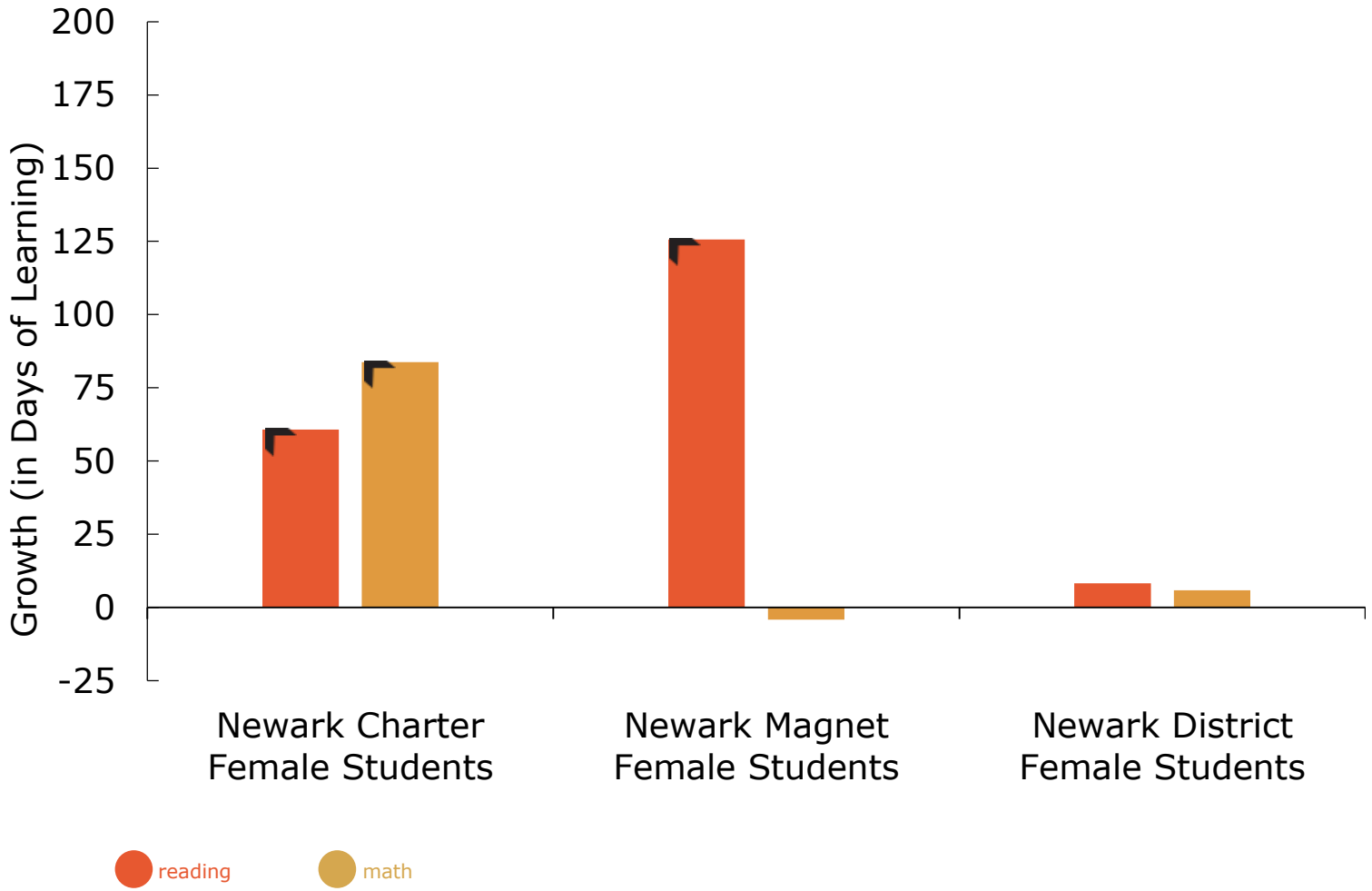
Research Findings > Student Subgroup Analysis > Female Students

VS. STATE BY SECTOR & COMPARISON WITHIN NEWARK

Learning Gains for Female Students in Newark Charter Schools, Female Students in Newark Magnet Schools, and Female Students in Newark District Schools Compared to the Average Learning Gains of Female Students Statewide, by Subject



Tests of Differences	sig
Reading	
Charter Female vs. District Female	⌜
Magnet Female vs. District Female	⌜
Math	
Charter Female vs. District Female	⌜
Magnet Female vs. District Female	

⌜ significantly different at p< 0.05

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Summary of Findings

The summary of the findings from the analysis of Newark schools is presented here.

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APPENDIXES

03

Acknowledgments

Student-level data were provided by the **New Jersey Department of Education**.

New Jersey Children's Foundation

New Jersey Children's Foundation assisted CREDO with verifying the list of public schools in Newark.

Types of Charter Schools

There are two types of charter schools.

CHARTER MANAGEMENT ORGANIZATIONS (CMOS)

Organizations holding the charter and overseeing the operation of at least three charter schools.

INDEPENDENT CHARTER SCHOOLS

Organization holding the charter and overseeing the operation of a single charter school. It may run the school directly or contract with an organization which provides services to one or two charter schools.

OUR ANALYSES OF NEWARK CHARTER SCHOOLS INCLUDE A BREAKOUT OF CMOS AND INDEPENDENT CHARTERS.

- With more schools and students than a single charter school, CMOs have some operational advantages in their ability to spread administrative fixed costs, thus providing the possibility of greater efficiency. In addition, CMOs may be able to support additional programs and more robust staffing.
- Whether CMOs lead to better student outcomes is a matter of interest across the country.

Methods

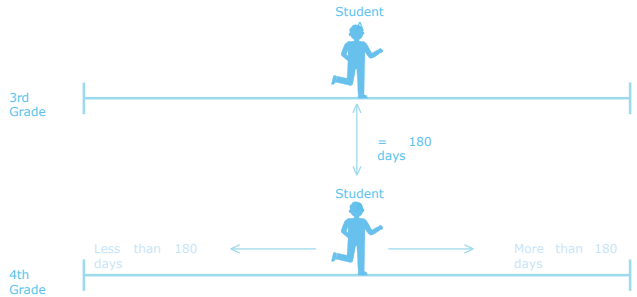
The annual academic growth of students in Newark from 2014-15 to 2017-18, overall and by sector, is benchmarked to the state average growth, accounting for student characteristics.

We also explore how one-year growth of Newark students for the period ending in Spring 2018 differs by school type, race, poverty status, English language learner status, special education status, and gender.

Days of Learning

CREDO USES ADVANCED TECHNOLOGY AND SOPHISTICATED STATISTICAL TOOLS TO MEASURE STUDENTS, SCHOOLS AND THE EDUCATION LANDSCAPE.

While these tools create precise and reliable answers, they are presented in technical terms that are not user-friendly to a general audience. To translate the technical results into terms that are accessible to non-technical audiences, CREDO developed Days of Learning.



01 **Think about the students in your state's public schools.** For many of their years of schooling, they take achievement tests to measure what they know at the end of the school year. We can identify the average score for each test each year.

02 **Imagine a student who scores exactly at the average in one year**, say 4th grade, and then in the following year, scores exactly at the average again on the 5th-grade test. The amount of year-to-year learning for that student show us what the average learning is for all the students who took both tests.

03 **We do that calculation for every grade the state tests:** 4th to 5th, 5th to 6th, and so on.

04 **CREDO uses those annual measures of average learning** to represent a typical year of learning, and equates that to a typical 180-day school year. We say that the student in our example has gained 180 days of learning.

05 **If a student makes more progress than the average student,** we take the amount of extra achievement and translate it into 180-days of learning plus "X" extra days. We are creating a measure of student learning as if the student went to school for 180 days plus X days. The size of "X" depends on how much more the student learns than the average student — if it's a lot more, then "X" will be a large number, and if it's a small amount more, "X" will be a small number.

06 **The same is true for students who do not learn as much as the average student.** Instead of adding to the 180-days-of-learning average, we subtract from that base to reflect the smaller-than-average advances that those students realize. In these cases, the difference leads to numbers such a "165 days of learning" or "152 days of learning". Against the average standard of 180 days, these smaller days show that students learned as if they had only attended school for 180 days minus X days during the school year.

Overall Newark Results

	READING		MATH	
	Standard Deviation	Days of Learning	Standard Deviation	Days of Learning
Newark Overall 2015-16	0.07*	43*	0.04	23
Newark Overall 2016-17	0.07**	43**	0.13**	73**
Newark Overall 2017-18	0.08**	44**	0.05	31

Significant at p < 0.05*

Significant at p < 0.01**

Newark School Sectors Compared to State Average

	READING		MATH	
	Standard Deviation	Days of Learning	Standard Deviation	Days of Learning
Charter Schools 2015-16	0.17**	100**	0.12**	72**
Charter Schools 2016-17	0.12**	72**	0.16**	94**
Charter Schools 2017-18	0.12**	70**	0.13**	79**
Magnet Schools 2015-16	0.14*	81*	0.05	30
Magnet Schools 2016-17	0.19**	111**	0.11*	63*
Magnet Schools 2017-18	0.24**	140**	0.01	8
Other District Schools 2015-16	0.01	5	-0.01	-5
Other District Schools 2016-17	0.03	14	0.11**	63**
Other District Schools 2017-18	0.02	12	0.01	5

Significant at $p < 0.05$*

Significant at $p < 0.01$**

Comparison of School Sectors within Newark

	READING		MATH	
	Standard Deviation	Days of Learning	Standard Deviation	Days of Learning
Charter Schools vs. Other District Schools 2015-16	0.16*	94*	0.13**	76**
Charter Schools vs. Other District Schools 2016-17	0.10*	57*	0.05	31
Charter Schools vs. Other District Schools 2017-18	0.10**	57**	0.12**	73**
Magnet Schools vs. Other District Schools 2015-16	0.13	76	0.06	34
Magnet Schools vs. Other District Schools 2016-17	0.16*	96*	0.00	0
Magnet Schools vs. Other District Schools 2017-18	0.22**	127**	0.00	2

Significant at p < 0.05*

Significant at p < 0.01**

Charter Subsector Analysis

	READING		MATH	
	Standard Deviation	Days of Learning	Standard Deviation	Days of Learning
Newark CMOs vs. State Average	0.14**	83**	0.18**	104**
Newark Independent Charters vs. State Average	0.09**	54**	0.09*	50*
Newark CMOs vs. Newark Independent Charters	0.05	29	0.09*	53*

Significant at p < 0.05*

Significant at p < 0.01**

Student Subgroup Analysis> Black Students

	READING		MATH	
	Standard Deviation	Days of Learning	Standard Deviation	Days of Learning
Compared with Statewide Average of Black Students				
Newark Black Students Overall	0.07**	43**	0.04	24
Newark Charter School Black Students	0.13**	76**	0.11**	66**
Newark Magnet School Black Students	0.18**	106**	0.01	8
Newark Other District School Black Students	0.00	0.00	-0.02	-11
Compared with Black Students in Other District Schools in Newark				
Newark Charter School Black Students	0.13*	76*	0.13**	76**
Newark Magnet School Black Students	0.18*	106*	0.03	18

Significant at p < 0.05*

Significant at p < 0.01**

Student Subgroup Analysis> Hispanic Students

	READING		MATH	
	Standard Deviation	Days of Learning	Standard Deviation	Days of Learning
Compared with Statewide Average of Hispanic Students				
Newark Hispanic Students Overall	0.07**	40**	0.07	41
Newark Charter School Hispanic Students	0.11**	63**	0.16**	95**
Newark Magnet School Hispanic Students	0.29**	172**	0.03	18
Newark Other District School Hispanic Students	0.02	10	0.03	17
Compared with Hispanic Students in Other District Schools in Newark				
Newark Charter School Hispanic Students	0.09**	53**	0.13**	78**
Newark Magnet School Hispanic Students	0.27**	161**	0.00	1

Significant at p < 0.05*

Significant at p < 0.01**

Student Subgroup Analysis> Students in Poverty

	READING		MATH	
	Standard Deviation	Days of Learning	Standard Deviation	Days of Learning
Compared with Statewide Average of Students in Poverty				
Newark Students in Poverty Overall	0.08**	46**	0.06*	37*
Newark Charter School Students in Poverty	0.13**	76**	0.15**	88**
Newark Magnet School Students in Poverty	0.26**	151**	0.03	19
Newark Other District School Students in Poverty	0.02	13	0.02	11
Compared with Students in Poverty in Other District Schools in Newark				
Newark Charter School Students in Poverty	0.11**	62**	0.13**	76**
Newark Magnet School Students in Poverty	0.23**	138**	0.01	7

Significant at p < 0.05*

Significant at p < 0.01**

Student Subgroup Analysis> ELL Students

	READING		MATH	
	Standard Deviation	Days of Learning	Standard Deviation	Days of Learning
Compared with Statewide Average of ELL Students				
Newark ELL Students Overall	0.01	6	0.05	27
Newark Charter School ELL Students	0.11	64	0.14	80
Newark Magnet School ELL Students§	-	-	-	-
Newark Other District School ELL Students	0.00	1	0.04	24
Compared with ELL Students in Other District Schools in Newark				
Newark Charter School ELL Students	0.11	62	0.10	56
Newark Magnet School ELL Students§	-	-	-	-

§Redacted to comply with the state's suppression rule.

Significant at p < 0.05*

Significant at p < 0.01**

Student Subgroup Analysis> Special Ed Students

	READING		MATH	
	Standard Deviation	Days of Learning	Standard Deviation	Days of Learning
Compared with Statewide Average of Special Ed Students				
Newark Special Ed Students Overall	0.07*	41*	0.03	20
Newark Charter School Special Ed Students	0.15**	90**	0.08*	47*
Newark Magnet School Special Ed Students	0.31*	181*	0.10**	59**
Newark Other District School Special Ed Students	0.01	4	0.01	3
Compared with Special Ed Students in Other District Schools in Newark				
Newark Charter School Special Ed Students	0.15**	85*	0.08*	44*
Newark Magnet School Special Ed Students	0.30*	177*	0.10**	56**

Significant at $p < 0.05$*

Significant at $p < 0.01$**

Student Subgroup Analysis> Male Students

	READING		MATH	
	Standard Deviation	Days of Learning	Standard Deviation	Days of Learning
Compared with Statewide Average of Male Students				
Newark Male Students Overall	0.08**	49**	0.05	28
Newark Charter School Male Students	0.14**	81**	0.13**	73**
Newark Magnet School Male Students	0.27**	160**	0.04	24
Newark Other District School Male Students	0.03	17	0.01	5
Compared with Male Students in Other District Schools in Newark				
Newark Charter School Male Students	0.11**	64**	0.12**	68**
Newark Magnet School Male Students	0.24**	143**	0.03	18

Significant at p < 0.05*

Significant at p < 0.01**

Student Subgroup Analysis> Female Students

	READING		MATH	
	Standard Deviation	Days of Learning	Standard Deviation	Days of Learning
Compared with Statewide Average of Female Students				
Newark Female Students Overall	0.07**	40**	0.06	33
Newark Charter School Female Students	0.10**	60**	0.14**	83**
Newark Magnet School Female Students	0.21**	125**	-0.01	-5
Newark Other District School Female Students	0.01	8	0.01	5
Compared with Female Students in Other District Schools in Newark				
Newark Charter School Female Students	0.09**	52**	0.13**	77**
Newark Magnet School Female Students	0.20**	117**	-0.02	-11

Significant at p < 0.05*

Significant at p < 0.01**

THANK YOU