


Rocketship Education: An Exploratory Case Study

A Dissertation Presented to
The Faculty of the College of Education
San José State University

In Partial Fulfillment of the Requirements for the Degree
Doctor of Education in Educational Leadership

by
Vladimir Gresham Ivanović 

August 2022

1	Contents	
2	List of Tables	vii
3	List of Figures	viii
4	Preface	ix
5	Acknowledgments	xi
6	Abstract	xiii
7	Introduction	1
8	Schools & Charter Schools	2
9	What is the Purpose of this Study?	5
10	Research Questions	6
11	The Importance of This Study	6
12	Theoretical and Conceptual Frameworks	7
13	A Case Study Approach as a Practical Framework	7
14	Public Policy as a Theoretical Framework	8
15	A Review of the Literature	11
16	A History of Charter Schools	14
17	The Origins of Charter Schools in Segregation	14
18	Charter Schools, Free Markets and Privatization	16
19	Types of Charter Schools	20
20	Charter Schools in the United States	24
21	Charter Schools in California	25
22	Surveys of Charter School Research	26
23	Research on Charter School Finances	27
24	Rocketship	28
25	Founders and Supporters	29
26	Rocketship History	30
27	Rocketship Finances	30
28	Rocketship Expansion Funding	32
29	Rocketship Expansion Difficulties	33
30	Charter School Accountability	34

1	Rocketship and Privatization	34
2	Privatization	35
3	Philanthro-Capitalism	37
4	Research Design and Methodology	39
5	Process Overview	39
6	Triangulation	40
7	Looking Ahead	41
8	School Financing in California (2019–20)	42
9	The Financing of Charter Schools	45
10	Data Sources	48
11	Financial Reports	49
12	Annual Budgets	50
13	Non-Financial Reports	54
14	Local Control Accountability Plans (LCAPs)	54
15	Other Data and Datasets	58
16	Non-financial Data Sources	59
17	Are There Gaps or Anomalies in the Data?	60
18	Are There More Serious Problems?	61
19	Red Flags	63
20	Analyzing Bond Financing	63
21	How Does Rocketship Compare?	64
22	Demographic Data	64
23	What About the Flow of Money Through Rocketship?	68
24	Findings and Results	71
25	Research Question #1	71
26	Research Question #2	71
27	Research Question #3	71
28	Discussion	73
29	Judging Case Studies	73
30	Abbreviations	75
31	Glossary	77

1	References	79
2	Index	93
3	Colophon	95

1 List of Corrections

2	Note: This whole section needs expanding.	32
3	Note: Needs expansion.	36
4	Note: Insert example spreadsheet here.	61

1		List of Tables	
2	1	Attributes of Private, Charter, and Public Schools in California	22
3	2	Rocketship schools	31

1		List of Figures	
2	1	<i>California 2019–20 K–12 Funding by Source</i>	43
3	2	<i>LASD 2019–20 All Funds Summary</i>	51
4	3	<i>LASD YE 2020 Summary of Net Position</i>	54
5	4	<i>LASD YE 2020 Change of Net Position</i>	55
6	5	<i>LASD YE 2020 Net Cost of Services</i>	55
7	6	<i>LASD YE 2020 Capital Assets</i>	56
8	7	<i>LASD YE 2020 Long-term Liabilities</i>	56
9	8	<i>LASD 2019–20 Multi-Year Projection</i>	57
10	9	<i>Flow of Funds: Overview</i>	65
11	10	<i>Flow of Funds: Cross-Collateralization</i>	66
12	11	<i>An example scatter plot</i>	67
13	12	<i>Operating Resource Flows</i>	69

Preface

Acknowledgments

1

2 My debts are many.

3 It goes without saying that I am solely responsible for any errors or omission in this

4 disseration.

Abstract

This dissertation is an exploratory case study of the finances of the Rocketship charter school chain. Where appropriate, an educational public policy lens will be applied. Rocketship is a popular not-for-profit charter management organization and is one of the oldest in the United States. This study seeks to determine if Rocketship yields profits for investors, despite it being a non-profit entity, and if it does, how and where does it do so. This study compares Rocketship to other examples of privatization in the United States, including of the privatization of public education. In order to characterize fairly and completely Rocketship's profitability, this study analyzes publicly available documents in order to track money flowing in and out of Rocketship. Using initial and renewal charter petitions, annual budget documents, filings with the California Department of Education and with the federal government, plus data from publicly available datasets, this study derives an estimate of Rocketship's profitability. **[Result #1]** TBD. **[Result #2]** TBD. **[Discussion]** TBD. **[Conclusion]** TBD. These results, it is hoped, will inform local, state, and federal legislatures when they establish public policy for charter schools.

Keywords: Rocketship Education, charter management organization, privatization, charter finances, education public policy

Introduction

If, in Harold Lasswell's words, politics is about who gets what, when, and how (Lasswell, 1936), then education is surely one of the most consequential – and fascinating — of public policy issues. At stake is the future well-being of 56.4 million students on whose behalf federal, state, and local governments spend upwards of three quarters of a trillion dollars annually. The number of stakeholders is huge: every parent and every child is a stakeholder, as are teachers, administrators, legislators, employees of fifty state departments of education, the federal Department of Education, the President of the United States, the U.S. Supreme Court, and state and local courts. Stakeholders exist throughout the United States, in states, counties, cities, towns, villages, and in almost 100 thousand schools in thousands of school districts. The COVID-19 pandemic of the last 2+ years has revealed just how important public education is to stakeholders.

Education is the arena in which parents, legislators, unions, political parties, billionaires, technologists, scholars and educators clash, all vying for influence and reward. Education is where religion, politics, free market neoliberalism, and social justice — all of them beliefs — intersect. One topic in particular has, in the last fifty years, generated a disproportionate share of discord: the privatization of public education, i.e. school choice.¹

Formerly sleepy school board elections have attracted national interest, and with that interest, a flood of money. The 2020 Los Angeles school board election cost over \$14M for just four seats and generated articles in the national press. Likewise, a November 2016 statewide proposition in Massachusetts that sought to expand charter schools was covered extensively by national newspapers with one advocacy group spending more than \$15M (not including a \$425,000 fine for violating campaign law). Betsy DeVos, U.S. Secretary of Education under the twice impeached President Donald Trump, drew fierce criticism from

¹“School choice” is an Orwellian name designed to mislead, to dress up an otherwise unpalatable reality: privatization takes something that used to be available to all and restricts it to only those who can afford to pay.

1 the start of her tenure, criticism which was endlessly reported on. What caused these
 2 uproars? Why was so much money spent on these and other elections? The answer is
 3 charter schools.

4 **Schools & Charter Schools**

5 Schools in the United States take three basic forms: the traditional public school (TPS),
 6 charter schools, and private schools. All but six states² allow some form of charter school;
 7 all have private schools and an extensive public school system. Properly speaking, school
 8 choice encompasses public, charter, private, and homeschooling. But, because charter
 9 schools have been the most controversial, the phrase “school choice” usually refers to
 10 charter schools.

11 Schools, under this definition of school choice, take a number of forms: they can, like
 12 TPSs be in-person, but unlike TPSs, they can also be online (virtual), or even a blend of the
 13 two. How school choice is financed varies as well. School vouchers, education savings
 14 accounts, and tax-credit scholarships have all been used, usually augmented by tax dollars.
 15 The phrase “School choice” is also associated with 529 savings accounts, student income
 16 loans, social impact bonds, and philanthro-capitalism.

17 Regardless of how school choice is financed, school choice complicates what used to be
 18 a system of mostly public schools plus a few private schools that had been in place for over
 19 150 years. This new kind of financing has raised some fundamental questions: Who
 20 benefits from this new financing? Do the children for whom education is the difference
 21 between poverty and flourishing benefit? Is education is being turned into a low-risk,
 22 profitable investment for hedge funds, private equity firms, investment banks, and the 1%?

23 The various forms of school choice have waxed and waned, but charter schools were
 24 present at the creation of the privatization movement in education and have continued to

²Kentucky, Montana, Nebraska, North and South Dakota, and Vermont

1 enroll more and more students, diverting more and more dollars out of the public school
 2 system (Lafer, 2018, p. 18)(Lafer et al., 2021, p. 9). School choice has spawned an entire
 3 industry devoted to marketing school choice: academic departments and institutions,
 4 educational associations, think tanks, astroturf³ advocacy groups, and political action
 5 committees, all of which are examples of the marketing of the privatization of public
 6 education.

7 According to the National Center of Education Statistics in the U.S. Department of
 8 Education, there were 7,547 elementary and secondary charter schools in the United States
 9 enrolling 3,431,230 students in 2019–20 school year, the latest year for which there is data
 10 (de Brey et al., 2022, Table 216.90, p.144). This represents 7.7% of the total number of
 11 elementary and secondary schools and 6.8

12 These are notable patterns, and the COVID-19 pandemic has accelerated the growth of
 13 charter schools, in contrast to recent years of slowing growth. This recent growth appears
 14 to be almost completely due to the expansion of virtual charter schools (Strauss, 2021).
 15 Despite continued growth, charter schools remain controversial and have generated
 16 heated debate. Reports and studies from charter school opponents have been answered by
 17 reports and studies from charter school advocates. Both sides claim their methodology to
 18 be superior and consider the other side's fatally flawed.⁴

19 What the research indicates is that *some* charter schools, under *some* circumstances, for
 20 *some* students, seem to do *somewhat* better than traditional public schools. (Garcia, 2018,
 21 p.119) Charter schools are, on average, just average. If charter schools are on average not
 22 better than public schools, why are they so fervently touted as the answer to the perceived
 23 ills of American public education? Why are eye-popping sums (10× the usual amount) spent
 24 supporting public school board candidates who advocate for charter schools? Why are

³Wordnik definition: “The disguising of an orchestrated campaign as a “grass-roots” event – i.e., a spontaneous upwelling of public opinion.”

⁴Jeffery Henig in *Spin Cycle: How Research is Used in Policy Debates: The Case of Charter Schools* (J. Henig, 2009) offers a fascinating look at the war of words that resulted from just one report and one newspaper article.

1 charter schools still growing in both enrollment and in number? Is the profit motive is the
2 overriding goal of charter schools, or are they instead driven by a genuine desire to
3 radically improve educational outcomes of children who most need a quality education?
4 My goal in this dissertation is to offer some answers to questions like these by looking
5 closely at the finances of a single charter school chain, Rocketship Education, and
6 analyzing how Rocketship spends its revenues.

7 I will use the term *charter school chains* to refer both to for-profit and to non-profit
8 organizations that manage more than one charter school. Charter school chains are
9 essentially franchise operations like McDonald's or Hertz, but in education instead of
10 hamburgers or rental cars. For-profit charter school chains have traditionally been called
11 *educational management organizations (EMOs)* and non-profit charter school chains *charter*
12 *management organizations*, but since there is little difference between the two, I will use
13 *charter school chains* when the distinction is unimportant.

14 The remainder of this chapter provides some context for why I conducted this study.
15 The chapter "A Review of the Literature" discusses the voluminous literature on charter
16 schools. The next chapter, "Research Design and Methodology", details what data was
17 collected, how it was collected, and how its analysis will be approached. The
18 chapter "Findings and Results" provides the results of analyzing that data in context of this
19 study's research questions. The last chapter "Discussion" considers the public policy
20 implications of my study and its conclusions, and makes some suggestions for how current
21 public policy should be changed to achieve some of the seven goals that the California
22 Legislature set out in *The Charter School Act of 1992*.

1 **What is the Purpose of this Study?**

2 The goal of this case study is to analyze carefully and fully as possible the finances of
 3 Rocketship Education and associated entities. I chose Rocketship Education⁵ to study
 4 because its popularity has led to core aspects of its model being adopted by other charter
 5 school chains such as the Caliber Public Schools or the Navigator Schools in California.

6 Charter schools, Rocketship included, offer themselves as better alternatives to
 7 traditional public schools. Rocketship claims that its pedagogical model of blended
 8 learning

- 9 • is more efficient than that of traditional public schools,
- 10 • offers personalized learning⁶ through computer-mediated instruction, and
- 11 • offers a human connection (at least part of the time) that is similar to traditional
 12 public schools.

13 These are claims that can be tested by comparing individual Rocketship schools to
 14 independent charter schools and to TPSs in the same district. The Rocketship chain can be
 15 compared to other charter school management organizations, to portfolios of charter
 16 schools, as well to traditional public school districts, but such studies need to be done with
 17 care to avoid methodological errors that would reduce the validity of the conclusions.

18 Many studies have looked at the outcomes of charter schools and charter chains,
 19 including one specifically on Rocketship's effect on Milwaukee's public schools if proposed
 20 legislation were to have been passed. But Rocketship's finances have not been studied in
 21 detail until now.

22 Several themes run through this study. The first is Rocketship's relationship to the
 23 privatization movement in education. The second is how Rocketship's finances drive its

⁵Rocketship Public Schools is the new name of Rocketship Education, but since it has been known as Rocketship Education for much longer than it has been as Rocketship Public Schools, I've chosen to retain the former name. Also, I'll use just Rocketship to mean either the charter management organization (CMO) or a generic Rocketship school, depending on context.

⁶Note that personalized learning is not the same differentiated instruction. All students follow the same path with personalized learning, albeit at different rates, instead of following different paths at different rates, as with properly implemented differentiated instruction.

1 need to expand. The third is how Rocketship needs continued marketing and public
2 relations to survive.

3 ***Research Questions***

4 These themes lead to the following research questions:

5 **Research question #1** How are Rocketship finances similar to or different from other
6 charter schools, charter school chains, or traditional schools?

7 **Research question #2** How are Rocketship's attributes and actions similar to other
8 privatization efforts in the United States?

9 **Research question #3** Has Rocketship structured its finances to earn a return to investors,
10 and if so, how?

11 More broadly, there are additional reasons for studying charter school finances. Are we
12 (the states, the federal government) misallocating the money we spend on charter schools?
13 Could we be spending our tax dollars more wisely? What did taxpayers get for these
14 expenditures?

15 **The Importance of This Study**

16 This case study is the first to examine in depth the finances of a single charter school chain.
17 Up to now, there have been studies of the finances of independent charter schools or
18 charter school chains, but only in aggregate (i.e. all known charter school chains in the
19 United States,⁷ or a selected group of charter school chains). Other studies have looked at
20 the effects of charter schools on segregation or on academic achievement, but again, only
21 in aggregate. None have studied the finances of just a single charter school chain.

22 It is hoped that the lessons learned from this case study will be used by policy makers to
23 strengthen charter school law in California and elsewhere in order to increase desired
24 outcomes and to minimize unwanted outcomes.

⁷See Miron et al. (2021) for a list of currently known charter school chains.

1 **Theoretical and Conceptual Frameworks**

2 According to Grant and Osanloo (2014), creating and understanding the theoretical
 3 framework for one's dissertation is "one of the most important aspects in the research
 4 process." (p.12) They liken the theoretical framework of a dissertation to the blueprints that
 5 define a house. That framework both defines the organization and the structure of a
 6 dissertation, as well as what counts as elements and their relationships. A theoretical
 7 framework articulates

8 ...the researcher's understanding of how the research problem will best be
 9 explored, the specific direction the research will have to take, and the
 10 relationship between the different variables in the study.

11 (Grant & Osanloo, 2014, pp. 16–17)

12 Further,

13 the conceptual framework offers a logical structure of connected concepts that
 14 help provide a picture or visual display of how ideas in a study relate to one
 15 another within the theoretical framework.

16 (Grant & Osanloo, 2014, pp. 16–17)

17 This dissertation uses a case study approach as its theoretical framework within a
 18 public policy framework, its conceptual framework.

19 ***A Case Study Approach as a Practical Framework***

20 Broadly, social science research falls into one of two categories. The research may make
 21 many observations with a narrow focus, or may instead adopt a broader focus, but with a
 22 correspondingly smaller number of observations. Gerring calls these "large C" or "small C"
 23 studies, respectively (Gerring, 2017, p. xvii). Of course, the boundary between large C and
 24 small C studies is not sharply defined.

1 Gerring calls small C studies *case studies*. In this dissertation I look at one entity,
 2 Rocketship Education, and at only one aspect of Rocketship, its finances. But I look at its
 3 finances broadly, examining as many different kinds of financial transactions as are
 4 publicly available for the subset of Rocketship schools that are in Santa Clara County. I
 5 discuss the elements of what makes a case study a good case study in the section “Judging
 6 Case Studies” of the chapter “Discussion”.

7 McCombes (2019) says that case studies are a “detailed study of a specific subject, such
 8 as a person, group, place, event, organization, or phenomenon”. They are ‘good for
 9 describing, comparing, evaluating and understanding kdifferent aspects of a research
 10 problem” and are “an appropriate research design when it allows you to explore the key
 11 characteristics, meanings, and implications of the case.” Two papers go into detail about
 12 using the case study approach: Crowe et al. (2011) and Rashid et al. (2019). Yin (2018)
 13 provides a detailed methodology for doing case study research well.

14 A case study framework for public policy research is ideal because the theory and
 15 practice of case studies is well-known and has been used both for public policy research
 16 and in public policy analysis for years. A case study framework formalizes an in-depth
 17 examination of a single topic, in this case, Rocketship’s finances.

18 ***Public Policy as a Theoretical Framework***

19 A public policy framework provides a rich set of tools and techniques with which to analyze
 20 Rocketship’s finances. Three factors support using a public policy framework to guide
 21 understanding and evaluating Rocketship’s finances. Firstly, charter school finance is
 22 constrained primarily by public policies set by state legislatures, the creators of charter
 23 schools. These laws regulate taxes, grants, borrowing capacity, and reporting requirements
 24 of charter schools and charter school chains (Aguinaldo et al., 2020), and by definition,
 25 whatever falls within the purview of legislators is public policy. Secondly, Harry Brighouse

et al., in *Educational Goods*, provide a succinct definition of what public policy analysis is which matches the purpose of undertaking this case study. They use a values, evidence, and decision-making framework “to make judgments about how well specific policies are likely to realize valued outcomes” (Brighthouse et al., 2018, p.1). Lastly, these three concerns — values, evidence, decision-making — are considered the key concerns by academics and researchers in the public policy field (Bueno de Mesquita, 2016; Clemons & McBeth, 2021; Fowler, 2013; Gupta, 2011). Using a public policy framework is appropriate when examining charter school finances.

The discipline of public policy sanctions a wide variety of tools and techniques when analyzing issues. Public policy has been studied for years (there are public policy departments in many universities) and it is a mature area of academic research. As in most academic fields, there are fierce debates about the merits and robustness of a particular approach compared to alternatives, but at a high level, what to do is generally agreed upon. Most identify the following five steps (or variants thereof) that are used when creating public policy:

1. Define the issues and set the agenda.
2. Formulate one or more policies that address the issues identified.
3. Evaluate those policies using tools and techniques like cost-benefit analysis, value analysis, political feasibility, game theory, and economic analysis.
4. Implement those policies by passing legislation, changing practices, or by using the courts.
5. Evaluate the effectiveness of the policy changes.

Two keys to identifying alternatives during policy formation and later when evaluating consequences are choosing or creating a model, and forecasting. Models identify what is going to be studied and their relationships, and forecasting is a prediction of the future whose consequences are (hopefully) identified in a model. Scott Page lists 26 major models in *The Model Thinker* that have been used in science, business, and medicine.

1 This dissertation relies on two excellent guides to public policy: *Policy Studies for*
2 *Educational Leaders* by Francis C. Fowler which offers a broad and complete treatment of
3 public policy specifically in the field of education, and *Public Policy Praxis* by
4 Randy S. Clemons and Mark K. McBeth which offers a number of well-tried tools and
5 techniques useful in analyzing public policy. An additional comprehensive treatment of
6 public policy can be found in Gupta (2011).

7 This introduction makes the case that public education is hugely important to many
8 stakeholders, but that there is also discord around larger issues like values, ideology, and
9 implementation. Charter schools have been offered as way of disrupting American public
10 education from its hide-bound, archaic, and sclerotic present, driving it, despite
11 opposition, into a dynamic future where education is tailored to each child's real needs.
12 This discord, and the importance of education, justify studying charter schools.

13 The next chapter reviews what other researchers and scholars have said about the
14 origins of charter schools, their history, and their ostensible goals before characterizing
15 first the finances of all public schools in California and then the unique aspects of charter
16 school finance. Lastly, it reviews the history of Rocketship Education because it is an
17 exemplar of a popular charter school and has had an outsized influence on public
18 education in Santa Clara County.

A Review of the Literature

American public education has – allegedly – been a failure, and hence, in desperate need of reform ever since the idea of free public education took hold in the early 1800's⁸. Since then, a succession of educators and reports have documented the abysmal[sic] state of American education. Prior to the Civil War, Horace Mann introduced widely copied reforms (Pulliam & Van Patten, 2007, p. 147) into a system which was not free, not open to all, and not compulsory. It had hardly changed since the founding of the Boston Latin School on April 23, 1635. Later, John Dewey, an educational leader in the progressive era, preached reform, but it really wasn't until the publication of *Nation at Risk* in 1983 that the modern zeal for education reform rose took form. J.D. Pulliam and J.J. Van Patten list 29 major education reform reports from 1982 to 2005 (p.252). That American public education needed reform was repeated constantly, mainly by conservatives, despite underwhelming evidence of its veracity and substantial evidence to the contrary. Through repetition, the need for reform has become accepted wisdom. The answer to this need was to take the government's "monopoly in education" (Milton Friedman's characterization) out of the hands of faceless bureaucrats and subject it to the rigors of free markets which would, it was asserted, with scant evidence, increase efficiency, choice, and quality. Thus vouchers and charter schools were legitimized.

No amount of research, it seems, can dispel the *idée fixe* that American education was in dire straits, and further, piecemeal changes were simply not enough to make substantive changes. No matter what J. R. Henig (1994) or Berliner and Biddle (1997) or Nichols et al. (2007) or Glass (2008) or Berliner and Glass (2014) wrote, the idea that American education needed fundamental, pervasive reform persisted.

To be clear, it is not the case that every American school is a model for the rest of the world: systematic and persistent, pervasive inequities and injustices abound and have

⁸Wikipedia has an excellent summary article on *Education in the United States* https://en.wikipedia.org/wiki/Education_in_the_United_States

1 been powerfully written about in Kozol (1992) and again in Kozol (2005), Valenzuela (1999),
 2 Heitzeg (2009), and Roithmayr (2014). But it is also clear that those schools have been
 3 systematically underfunded for decades; their dismal performance is more likely the result
 4 of the poverty of their neighborhoods and their lack of funding than it is the other way
 5 around. For example, the California School Boards Association's (CSBA) Education Legal
 6 Alliance Adequacy Committee found that there exists a "substantial gap in funding
 7 between what K-12 education [in California] receives and what K-12 education needs even
 8 to meet the standards prescribed by the state (Bray, 2015, *iii*). Bruce D. Baker et al. in their
 9 aptly titled report *The Real Shame of the Nation*, develop their *National Education Cost Model*
 10 (B. D. Baker et al., 2018, p. 5) which accounts for regional cost differences as well different
 11 funding levels to show that inadequate funding is present throughout the United States.
 12 David R. Garcia says in *School Choice* that the "existence and importance of the issues that
 13 reformers believe plague public education are based as much on tradition and reputation
 14 as they are on tangible research evidence" (Garcia, 2018, p. 54). Finally, and tellingly, grossly
 15 inadequate funding is a characteristic of communities that are racially segregated and who
 16 are not white (Darling-Hammond, 2012; Rothstein, 2017).

17 What is astonishing is that Jeffrey R Henig's book, *Rethinking School Choice*, which came
 18 out a mere three years after the passage of the nation's first state charter school law in
 19 Minnesota⁹ and two years after the second in California¹⁰ lays out a key argument against
 20 charter schools. Henig says, "[T]he real danger in the market-based choice proposals is not
 21 that they might allow some students to attend privately run schools at public expense, but
 22 that *they will erode the public forums in which decisions with societal consequences can*
 23 *democratically be resolved.*" (emphasis added) (J. R. Henig, 1994, *xiii*). Translated this means
 24 that the decisions about public education's form and content are not going to be made by

⁹Laws of Minnesota 1991, chapter 265, article 9, section 3

¹⁰Education Code, Title 2, Division 4 Part 26.8, §47600 *et. seq*

1 parents and teachers, but by people who do not have a stake in the outcome. It's a matter of
2 badly misaligned incentives.

3 But even before that, in 1982, Earl Craig, Jr. attached a minority report to *Rebuilding*
4 *Education to Make It Work* which advocated for vouchers. He says in a paragraph that is as
5 accurate today as it was in 1982:

6 In conclusion, this report is part of a national movement toward privatization
7 of public services and responsibilities. I believe this movement will have the
8 eventual result of a complete retreat by this society from a societal
9 responsibility for the powerless who are difficult or expensive to educate,
10 house, protect, etc. I believe the committee and board majority when they say
11 that they are committed to equal access and equity. They say, trust that we will
12 do the right thing. I do trust them, I do not trust the societal momentum of
13 which vouchers is a part. It is a very destructive wave that has caught up many
14 good people. It scares me to death.

15 (Citizens League, Education Alternatives Committee, 1982, p. 48)

16 The belief that that American schools were in crisis is simply not supported by the evidence.
17 But the idea that American schools are in crisis has been relentlessly promoted, and sheer
18 repetition has turned fiction turned into fact; charter schools then became an idea whose
19 time had come. Charter schools didn't actually take off until "education reformers across
20 party lines realized that charter school laws could be crafted in ways that made it possible
21 to open nonunion public schools, or even allow public schools to be managed by for-profit
22 companies" (Goldstein, 2015, p. 172).

23 This literature review will first look at charter schools, their origins and the early
24 research, before examining the types of charters which exist. Then it looks at the various
25 models of charter schools like virtual charter schools, charters which use blended learning,
26 and charter management organizations before taking a closer look charter schools in Santa
27 Clara County and in Rocketship in particular. It ends with a consideration of the finances
28 of charter schools.

1 **A History of Charter Schools**

2 Charter schools (privately run, but publicly financed schools) had an ugly racist origin in
 3 the post-*Brown v Board of Education* era as a method of evading the U.S. Supreme Court's
 4 mandate to educate both black and white Americans equally and not separately. Fifty years
 5 later, charter schools turned segregation academies into the preferred vehicle for
 6 privatizing public schools for profit while maintaining segregation.

7 ***The Origins of Charter Schools in Segregation***

8 The first charter schools were not founded for educational or economic reasons. Charter
 9 schools had their origin in the aftermath of *Brown v. Board of Education*, 347 U.S. 483 (1954).
 10 “[*Brown*] was the genesis of school choice as a public policy mechanism.” (Garcia, 2018, p. 8)
 11 In the Deep South, academies sprung up as part of the massive resistance to the U.S.
 12 Supreme Court’s unanimous 1954 ruling that:

13 Segregation of children in public schools solely on the basis of race deprives
 14 children of the minority group of equal educational opportunities, even
 15 though the physical facilities and other “tangible” factors may be
 16 equal. *Brown v. Board of Education*, 347 U.S. 483 (1954) (USSC+)

17 In order to circumvent *Brown*, white parents in eleven states formed thousands of private
 18 schools, and until the early 1970’s, these segregation academies received public funds
 19 (Rooks, 2017, p. 81). These origins of charter schools have been amply documented, in
 20 Frankenberg et al. (2010), Frankenberg et al. (2011), and especially in Suitts (2019) and Suitts
 21 (2020). Michelle Alexander in *The New Jim Crow* (Alexander, 2011, p. 223) quotes Rosenberg
 22 (1991, p. 52) “The statistics from the Southern states are truly amazing. For ten years,
 23 1954–1964, virtually *nothing happened*.” [emphasis in Alexander (2011)] She goes on to say,

24 Not a single black child attended an integrated public grade school in South
 25 Carolina, Alabama, or Mississippi as of the 1962–1963 school year. Across the

1 South as a whole, a mere 1 percent of black school children were attending
2 school with whites in 1964—a full decade after *Brown* was decided.

3 In the years after *Brown*, some localities went further than merely forming segregation
4 academies. Prince Edward County in Virginia closed all of its schools for five years rather
5 than integrate. Others closed pools, parks, zoos, and recreational facilities instead of
6 integrating. This deliberate evasion of racial equality continued until a 1968 Supreme Court
7 ruling put a stop to the practice of closing public facilities to avoid integrating them
8 (Brennan, 1968).

9 The irony is that while charter schools started life as 100% white, now they serve
10 students of color who are intensely segregated. Frankenberg et al. (2019) noted that

11 Nearly three out of four students in the typical black student's charter school
12 are also black. This indicates extremely high levels of isolation, particularly
13 given the fact that black students comprise less than one-third of charter
14 students. Latino isolation is also high, but not as severe as for blacks or whites
15 across all charter schools. (p. 47)

16 Unfortunately, these segregation academies still exist, but instead of excluding
17 children of color the way segregation academies did, they only include children of color
18 and they are no longer called segregation academies but are instead called charter schools
19 and often use the word "Academy" in their name.

20 Nikole Hannah-Jones, in her keynote speech at the Network for Public Education's
21 Fourth Annual Conference, said that it has never been the case that a majority of
22 African-Americans have attended majority white schools ("Keynote at the Network for
23 Public Education's 4th Annual Conference," 2017). She then added ruefully, that this was
24 quite a feat considering that African-Americans make up roughly one seventh of the
25 population of the United States. Orfield and Frankenberg (2014) note that the percent of
26 African-Americans in majority white schools rose from 0% in 1954 to a peak of 43.5% in 1988

1 before steadily declining to 23.2% in 2011. (Table 3: Percent of Black Students in Majority
 2 White Schools, 1954–2011 Orfield & Frankenberg, 2014, p. 10). Hannah-Jones also
 3 commented that American public education doesn't even live up to the Separate but Equal
 4 doctrine espoused in *Plessy v Ferguson* and overturned by *Brown v Board of Education*: Schools
 5 are still segregated schools and are still unequal.

6 **Charter Schools, Free Markets and Privatization**

7 Just a year after *Brown*, Milton Friedman published his article “The Role of Government in
 8 Education” in *Economics and the Public Interest* that reframed charter schools as an economic
 9 problem in education instead as a way of evading court-ordered integration. That paper
 10 ensured that charter schools would no longer be morally tainted by their association with
 11 virulent racism, but rather would take on the honorable task of breaking up what they
 12 called a monopoly. Charters, operating in a free market¹¹, would allow parents to choose the
 13 best alternative from an array of competing choices. Tellingly, left unspecified was exactly
 14 how the free market would ensure that the array of competing choices actually offered
 15 valuable educational alternatives rather than merely alternatives in different locations.

16 In 1981, Ronald Reagan ran and became President of the United States based on a
 17 platform of less government is better government. This platform included eliminating the
 18 U.S. Department of Education (“The Republican Party Platform of 1980,” 1980). True,
 19 eliminating the Department of Education is not the same as shutting down an entire
 20 school district the way white parents did in 1964, but the thought is there. Ian Haney-López
 21 expertly dissects how it's possible to voice racist thoughts without actually using racial
 22 words, a practice perfected by President Ronald Reagan (Haney-López, 2014).

¹¹No one really wants a free market because a market completely free of regulation would have unenforceable contracts, rampant monopolies, and constant and ruinous market failures. What people really want when they use the phrase “free market” is a heavily regulated market which allows them to profit, unfettered, while restraining others.

1 Now, only liberty and freedom matter, in education, as in other fields. It's school choice
 2 or bust; school choice is proffered not only as *the* panacea for all that ails America's schools,
 3 but it is touted as the morally right thing to do. With trace of irony, the twice impeached
 4 President Donald Trump framed school choice as the "civil rights issue of our time" in a
 5 garbled statement at the signing of an executive order on Safe Policing for Safe
 6 Communities:

7 School choice is the civil rights statement of the year, the decade and probably
 8 beyond. Because all children have to have access to quality education. A child's
 9 zip code in America should never determine their future.

10 (as quoted in Lennox, 2020)

11 Education reformers have latched on to the notion that schools need to be privatized
 12 and freed from bureaucratic control for reasons of efficiency, increased flexibility, and
 13 accountability (Garcia, 2018, p. 63). This claim is made despite educational management
 14 organizations (EMOs) themselves being high overhead, opaque bureaucracies with scant
 15 accountability.

16 In 2015, Bruce Baker and Gary Miron identified four major policy concerns with the
 17 privatization of public education:

- 18 1. A substantial share of public expenditure intended for the delivery of direct
 19 educational services to children is being extracted inadvertently or intentionally for
 20 personal or business financial gain, creating substantial inefficiencies;
- 21 2. Public assets are being unnecessarily transferred to private hands, at public expense,
 22 risking the future provision of "public" education;
- 23 3. Charter school operators are growing highly endogenous, self-serving private
 24 entities built on funds derived from lucrative management fees and rent extraction
 25 which further compromise the future provision of "public" education; and

4. Current disclosure requirements make it unlikely that any related legal violations, ethical concerns, or merely bad policies and practices are not realized until clever investigative reporting, whistleblowers or litigation brings them to light.

(B. Baker & Miron, 2015, p. 3)

In California at least, these policy concerns have not been addressed in the six years since Bruce Baker and Gary Miron wrote about them¹².

Charter schools are now just one of the many forms of *privatization*, when public functions are performed by private parties for profit. Privatization is a manifestation of the corporate takeover of the world. More than fifty years ago, G. William Domhoff published the first of eight editions of *Who Rules America?* (Domhoff, 2014) in which he argues that corporations and the corporate elite really run the United States, and by extension, the world. Si Kahn and Elizabeth Minnich make much the same point in their book *The Fox in the Henhouse: How Privatization Threatens Democracy* (Kahn & Minnich, 2005). They list “[s]chools, prisons, welfare, Social Security, water and sewer systems, buses, trains, subways, highways, waterways, sanitation systems” (p. 30) as examples of formerly government run functions that are in whole or part privatized. They could have also listed postal mail, air traffic control, space travel, and now every facet of education, as being wholly or partly privatized. Donald Cohen and Allen Mikaelian lay out in depressing detail how privatization has infiltrated American life and the consequences of this takeover of public goods by private firms run for profit. (Cohen & Mikaelian, 2021). Derek W. Black in *Schoolhouse Burning* (Black, 2020) focuses on the less tangible but arguably more important consequences of privatization of public schools, the loss of democratic control.

Privatizers make money by turning goods or services that used to be publicly available into private goods and services that must be paid for before they can be used. The

¹²Changes in policy to address some of these concerns have been strenuously opposed by charter school advocates. For example, the California Charter Schools Association opposed an accountability bill, AB1316 *School accountability: financial and performance audits: charter schools: contracts*. (2021–2022), which merely sought to make charter school finances more transparent.

1 canonical example of privatization is the enclosure of the commons in Britain in the 16th
 2 and 17th centuries whereby land which had previously been owned collectively by a village
 3 was now owned by an individual who charged villagers for the use of that land (Simon
 4 Fairlie, 2009). But modern privatizers have many more ways of turning a profit. They can:

- 5 • Obtain tax benefits
- 6 • Invest in other firms with public monies
- 7 • Invest in financial instruments with public monies
- 8 • Obtain a monopoly
- 9 • Engage in fraud, corruption, or outright theft
- 10 • Engage in self-dealing
- 11 • Obtain grants or loans on favorable terms
- 12 • Sell what doesn't belong to them
- 13 • Avoid paying for externalities
- 14 • Pay below market rates for goods or services
- 15 • Skew public-private partnerships to create unearned profits
- 16 • Engage in pay-for-success contracts
- 17 • Offer social impact bonds

18 Charter school operators have even more options. They can inflate enrollment, charge
 19 excessive management fees, mis-characterize expenses, omit or inaccurately report
 20 financial data, fail to open a school or close one soon after receiving a grant, and sell their
 21 facilities to investors and lease them back, both at inflated prices. Many charter schools
 22 have a long history of duplicitous or fraudulent actions (In the Public Interest, 2018; Burris
 23 & Bryant, 2020; B. Baker & Miron, 2015).

24 School choice has been relentlessly marketed and promoted by billionaires who do not
 25 send their children to public schools.¹³ The Walton family, Eli Broad, Bill Gates, the Koch
 26 brothers, the Zuckerbergs, and Laurene Jobs, are all on the list of the 500 richest people in
 27 the world. Their collective wealth exceeds half a trillion dollars, and they are busily engaged
 28 using that wealth to fix the very problems that their accumulation of wealth caused.

¹³Diane Ravitch lumps these billionaires together, calling them the “Billionaires Boys Club”, an epithet first used in *The Death and Life of the Great American School System*.

1 Anand Giridharadas whose book, *Winners Take All*, has the subtitle *The Elite Charade of*
 2 *Changing the World*, says that it's a
 3 "Trying-to-Solve-the-Problem-with-the-Tools-That-Caused-It" issue (Giridharadas, 2018,
 4 p. 142).

5 The impact of the billionaires on education cannot be emphasized enough. Bill Gates
 6 made \$2B in grants aimed at creating smaller schools (Gates, 2009, p. 11), despite a lack of
 7 evidence that they were educationally valuable. He eventually abandoned the effort when it
 8 didn't produce the intended results. Gates was also instrumental in funding the Common
 9 Core State Standards whose premise was that if we only had high enough academic
 10 standards, student outcomes would improve.

11 Charter schools were born of racism and they perpetuate that racism. They are merely
 12 the educational version of privatization, a movement driven by a search for profit, not
 13 educational excellence. They appear to be the social project plaything of billionaires.

14 **Types of Charter Schools**

15 Charter schools can be broadly classified along three axes:

16 **authorizer/oversight** What entity approved their charter and who will exercise oversight?

17 **profit/non-profit** Are the schools intended to generate a profit, or are they strictly
 18 non-profit?

19 **in-person/blended/virtual** Are their classes in-person, virtual, or a blend of the two?

20 **Charter School Authorizers and Oversight** Charter schools in California are potentially
 21 subject to a three step process to gain authorization to operate. The first step is to submit a
 22 petition to the school district in which the charter wishes to reside. This petition must
 23 contain a number of required elements, all of which are specified in Education Code
 24 §47605(c)(5)(A–O), the so-called "15 Required Elements (A–O elements)" (Aguinaldo et al.,

1 2021, p. 89). Besides some technical details, the petition must contain a description of the
 2 charter's annual goals which must align with state priorities, for all pupils and for various
 3 subgroups; how these outcomes are to be measured; how the charter is to achieve a racial
 4 and ethnic balance similar to its district, its governance structure, and its finances.

5 If the petition contains all the required elements, then the public school district may
 6 approve the petition, with or without additional stipulations. If the public school district
 7 denies the charter school's petition, the charter school may appeal that denial to that
 8 County's Board of Education (CBOE), and if the CBOE denies the charter school's appeal,
 9 under certain circumstances, the charter school may appeal to the State Board of
 10 Education (SBE). A denial by the SBE terminates the process, and the charter school is not
 11 permitted to open.

12 Public school districts (LEAs, local education agencies, in the parlance of the California
 13 Department of Education (CDE)) may authorize one several kinds of charter schools. A
 14 district may sponsor a charter school directly, in which case the LEA exercises oversight.
 15 These dependent charter schools are authorized by the local public school board and are
 16 subject to the board's jurisdiction. It also is possible for all the schools in a district to
 17 convert to charter schools, and then the public school board becomes the charter school
 18 board.

19 Table 1 on the following page is a summary of the attributes of the types of schools in
 20 California.

21 **Profit-Making Status** Until the 2019–20 school year, charter schools in California could
 22 be run directly or indirectly by a profit-making organization. California now prohibits
 23 profit-making organizations, either a single school or a charter management organization,
 24 from submitting an initial charter school petition or a renewal.

Table 1
Attributes of Private, Charter, and Public Schools in California

	Private	Charter	Public
Funding	parent tuition	tax dollars	tax dollars
Governance	self-appointed	self-appointed	elected board
Duration	unlimited	time-limited	unlimited
Ed. Code	no	no	yes
Taxation Powers	none	none	limited
Facilities Bonds	no	no	yes
Facilities Grants	no	yes	no
Enrollment	limited	limited	unlimited
Unionized	rarely	rarely	often
Curriculum	completely flexible	very flexible	flexible
Standardized Testing	no	yes	yes
Accountable	no	authorizer	state & parents
Teacher Certification	no requirement	yes	yes
Teacher Pension	perhaps	perhaps	yes

1 Even though profit-making charters are banned, there are many ways of getting
2 around this restriction. Charter operators can contract with outside firms to provide all or
3 just some services, and those firms may be profit-making firms. Charter operators are able
4 to lease, buy, or sell their facilities, and those rental or sales or purchases can generate a
5 profit. Charter operators can sell their facilities and lease them back from the buyer. This
6 kind of financial transaction converts an illiquid asset (buildings) into a liquid asset, cash,
7 and also generates a revenue stream from the rental income, all of which is ultimately paid
8 for by taxpayers. Charter operators may also charge schools a management fee or an
9 expansion fee. Charter operators are not restricted in the salaries they pay administrators.

10 However, charter school board members in California have recently become subject to
11 the conflict-of-interest laws specified in Government Code §§1090–1099 and
12 §§87100–87314 (Becerra & Medeiros, 2018). Generally, government officials are prohibited
13 from benefiting financially from their positions as public servants, but it remains to be

1 seen if these conflict-of-interest laws will prevent profiteering by school board members,
2 administrators, or relatives of either.¹⁴

3 **Type of Instruction** Charter schools, unlike almost all public schools, vary in their
4 instructional format. In-person instruction is the same as traditional public schools. On
5 the other hand, virtual charter schools have no face-to-face instruction; everything is
6 mediated by some sort of technology, typically, computers running specialized software.
7 Blended instruction is a mixture of in-person and virtual instruction.

8 Virtual charter schools have been studied extensively by Alex Molnar, Gary Miron and
9 others and at the National Education Policy Center, University of Colorado, Boulder since
10 2013. (*Virtual Schools in the U.S. 2013, 2013; Virtual Schools in the U.S. 2014, 2014; Virtual Schools*
11 *in the U.S. 2015, 2015; Miron & Gulosino, 2016; Virtual Schools in the U.S. 2017, 2017; Full-Time*
12 *Virtual and Blended Schools: Enrollment, Student Characteristics, and Performance, 2018; Virtual*
13 *Schools in the U.S. 2019, 2019; Virtual Schools in the U.S. 2021, 2021*) Their annual reports are
14 depressingly consistent: virtual school not run by a public school district significantly
15 underperform public schools. Their conclusions are echoed by Woodworth et al. (2015) and
16 Garcia (2018). Yet, despite being clearly academically inferior to public schools, the number
17 of students attending virtual schools has risen year after year. Their pre-pandemic growth
18 seems to be slowing, but their performance, compared to TSPs, has not measurably
19 improved.¹⁵ (*Virtual Schools in the U.S. 2019, 2019, p. 11*).

20 Pre-pandemic, charter schools in California were legally deemed classroom-based (e.g.
21 not virtual) if students spent at least 80% of their time not in front of a computer.¹⁶

¹⁴The law is necessarily complex. Two useful guides are Chaney et al. (2010) and Kevin Ennis et al. (2016) (which run to nearly 300 pages). A more general guide to local government ethics is “Understanding the Basics of Public Service Ethics” from California’s Institute for Local Government.

¹⁵Although *Charter Schools in Perspective: A Guide to Research* is otherwise an excellent summary of the research on charter schools, they incorrectly state (p.117) that there is little research of online or virtual charter schools. The authors must not be aware of the NEPC series on virtual charter schools. However, according to *Virtual Schools in the U.S. 2019* (2019, p. 117), there is only one study on blended charter schools.

¹⁶The California Education Code §47612.5(e)(1) doesn’t mention computers, but bases its definition on students being physically at the schoolsite with a certificated teacher in charge. Under that definition, a

1 Blended charter schools, on the other hand, offer some sort of face-to-face interaction with
 2 a teacher along with online activity without face-to-face interaction. But they too offer
 3 only marginally better educational outcomes than fully virtual charter schools (*Virtual*
 4 *Schools in the U.S. 2019*, 2019, p. 52). Rocketship schools use a blended instructional model.

5 ***Charter Schools in the United States***

6 Charter schools are one of several different kinds of school choice that are or have been
 7 available in the United States. Vouchers, private schools, home schooling, educational
 8 savings accounts, freedom-of-choice plans, magnet schools, and open enrollment are all
 9 forms of school choice. Home schooling accounts for less than 5% of all the students in
 10 United States. Private schools enroll about 12% of the total. Magnet school account for a
 11 few percent. Roughly, the various form of school choice, including charter schools, account
 12 for just under a quarter of all American students.

13 The characteristic that home schooling and private schools share is that they are
 14 agnostic about public schools. Not so for charter schools, voucher, and freedom-of-choice
 15 plans. Charter schools, voucher programs, parent trigger programs, and
 16 freedom-of-choice plans explicitly want to supplant or replace public schools (Garcia, 2018,
 17 pp. 5, 15, 35).

18 The first charter schools, other than segregation academies, were founded in
 19 Milwaukee, Wisconsin in 1991, followed by California starting in 1993. Conceptually, charter
 20 schools were based on an amalgam of ideas from Milton Friedman, Albert Shanker, and
 21 Ray Budde. Milton Friedman came at it from an ideological point of view couched in
 22 economic terms. Albert Shanker, in 1988, in a speech at the National Press Club, proposed
 23 that *teachers* in conjunction with *parents* be allowed to form a school *within* a school district.

roomful of students behind computers with a teacher in attendance would qualify as classroom-based and not virtual. California's Education Code does not recognize the blended category.

1 There was no mention of competition, or free markets, or even of charter schools.
 2 Shanker's speech emphasized curriculum and learning, not governance or finance. Ray
 3 Budde first thought of charter schools in the early 1970s, but his proposal generated no
 4 interest and it wasn't until 1988 that he published his ideas (Budde, 1988).

5 ***Charter Schools in California***

6 Charter schools, in California as elsewhere in the United States, enter into a contract (the
 7 charter) with a chartering authority that specifies what they are to do and how, and in
 8 return, are exempt from the entirety of California's Education Code (with the exception of
 9 five technical provisions). The California Legislature, when it enacted the *The Charter School*
 10 *Act of 1992*¹⁷ (Ed. Code §47600), spelled out its intent that the charter schools should

- 11 a) Improve pupil learning.
- 12 b) Increase learning opportunities for all pupils, with special emphasis on expanded
 13 learning experiences for pupils who are identified as academically low achieving.
- 14 c) Encourage the use of different and innovative teaching methods.
- 15 d) Create new professional opportunities for teachers, including the opportunity to be
 16 responsible for the learning program at the schoolsite.
- 17 e) Provide parents and pupils with expanded choices in the types of educational
 18 opportunities that are available within the public school system.
- 19 f) Hold the schools established under this part accountable for meeting measurable
 20 pupil outcomes, and provide the schools with a method to change from rule-based to
 21 performance-based accountability systems.
- 22 g) Provide vigorous competition within the public school system to stimulate continual
 23 improvements in all public schools.¹⁸

¹⁷Current California law can be accessed at <https://leginfo.ca.gov/faces/home.xhtml>. California Regulations are at <https://ccr.oal.ca.gov>. California's Education Code (Ed.Code) is at <https://leginfo.ca.gov/faces/codesTOCSelected.xhtml?tocCode=EDC&tocTitle=+Education+Code+-+EDC>

¹⁸This goal was added in 1998.

1 It is important to keep these seven goals in mind because charter schools have
 2 contractually agreed to these goals in return for funding, independently of whatever other
 3 goals they explicitly specified in their charter. Note, in particular, that nothing has been
 4 said about profitability, and in fact, California enacted a prohibition against for-profit
 5 charter schools (Ed. Code §47604 et seq.) in 2018.

6 The act has been amended many times in its nearly 30 years of existence, but its intent
 7 has remained the same.

8 **Surveys of Charter School Research**

9 It's been about 30 years since the first charter school law was passed. In the last decade,
 10 researchers have published several surveys of the research on charter schools. The first two
 11 decades (1990–2010) were somewhat experimental and different enough that the research
 12 that came out of that period is less relevant than more recent research.

13 Five surveys stand out. The first survey of the last decade is “Beyond Ideological
 14 Warfare: The Maturation of Research on Charter Schools” by Joanna Smith et al. which is a
 15 systematic review of charter school research as it existed in 2011. Smith et al. (2011) are
 16 interested, not so much in the conclusions of the studies they looked at, but how the
 17 research was performed, how was it structured, what facets of charter schools were looked
 18 at, and what was the subject of the research in order to “separate empirical evidence from
 19 politicized conjecture” (p. 460). Four years later, Mark Berends in “Sociology and School
 20 Choice” (Berends, 2015) chose as his focus the various theories that researchers used when
 21 looking at the social organization of charter schools. Next, Dennis Epple et al. did much
 22 the same, but concentrated on the technical aspects of study design (Epple et al., 2016).
 23 They observed that which research question(s) were being answered by a particular study
 24 was often much narrower or significantly different than the research question(s) authors
 25 set out to answer or thought they were answering. In addition to Public Agenda (2018), the

1 most recent survey, in 2019, is by Ron Zimmer et al. In *Nearly Three Decades into the Charter*
 2 *School Movement, What Has Research Told Us about Charter Schools?* they look at who is served,
 3 racial segregation effects, both academic and non-academic outcomes, management
 4 structure, and financial effects. Although Garcia (2018) is not explicitly a survey of the
 5 existing literature, Garcia, in Chapter 3 (pp. 91–146), contains much material on the
 6 research evidence which guides (or should guide) school choice policies. His goal is to
 7 present general trends that “reflect the weight of the evidence” (p. 93).

8 ***Research on Charter School Finances***

9 Charter schools have been much studied, and the last decade has produced a number of
 10 reports examining charter school finances based on carefully collected evidence. For
 11 example, in 2014, Gordon Lafer, now at In the Public Interest, published an analysis of a
 12 proposed law in Milwaukee, WI (Lafer, 2014) that was specifically tailored to benefit a
 13 to-be-opened Rocketship school. Lafer went on to author two other studies on charter
 14 schools, public policy, and finance: *Spending Blind: The Failure of Policy Planning in California*
 15 *Charter School Funding* and *Breaking Point: The Cost of Charter Schools for Public School Districts*.
 16 Carol Burris, Executive Director of the Network for Public Education, and several
 17 co-authors have produced three reports on charter schools: Burris and Pflieger (2020),
 18 Burris and Bryant (2020), and Burris and Cimarusti (2021). The National Education Policy
 19 Center is a loose organization of over 150 scholars and academics at different universities
 20 whose goal is “to produce and disseminate high-quality, peer-reviewed research to inform
 21 education policy discussions” (“About the National Education Policy Center,” n.d.). The
 22 NEPC has produced hundreds of reviews of research, policy and legislative briefs, some of
 23 which are annual surveys of charter schools. The series on profiles of EMOs have been
 24 produced annually for fifteen years; the series on virtual charter schools, for ten years.
 25 Bruce Baker’s contributions here are especially noteworthy: *The Business of Charter Schooling*:

1 *Understanding the Policies That Charter Operators Use for Financial Benefit*. B. Baker and Miron
 2 (2015), “NEPC Review: California Charter Schools: Costs, Benefits, and Impact on School
 3 Districts (Center on Reinventing Public Education, May 2019)” B. D. Baker (2019), and the
 4 above mentioned *Profiles of For-Profit and Nonprofit Education Management Organizations:
 5 Fifteenth Edition* Miron et al. (2021).

6 Gordon Lafer’s report, *Spending Blind: The Failure of Policy Planning in California Charter
 7 School Funding* is particularly scathing. He says, “Any time there is a low bar of entry for
 8 firms seeking to access government funds, one can expect to find corruption, and the
 9 charter industry is no exception.” (p.18) But even absent corruption, there is ample
 10 opportunity to make lots of money. Lafer documents \$2.5B of Californian taxpayer money
 11 spent over fifteen years on charter school facilities, in many cases where there is no
 12 documented educational need and where the charter school is of lower quality than nearby
 13 public schools. Lafer says, “It’s as if legislators turned on a faucet of money and then just
 14 walked away.” (p.12) It is saddening that in the four years since Lafer’s report came out,
 15 nothing has fundamentally changed.

16 **Rocketship**

17 Rocketship is well-known in the charter school world. It even has been the subject of a
 18 “biography”, *On the Rocketship* (Whitmire, 2014).¹⁹. Rocketship’s leaders and supporters
 19 routinely describe it as “high performing”, “deserving of huge credit”, “dynamic”, and
 20 “nationally lauded”. Rocketship schools, it is claimed, outperform some of the best public
 21 schools in the country. Rocketship “believe[s] that every student deserves the right to
 22 dream, to discover, and to develop their own unique talent”. Rocketship, charter school

¹⁹Just two other charter schools share this distinction: Geoffrey Canada’s Harlem Children’s Zone (Tough, 2009) and the KIPP schools (Mathews, 2009; Horn, 2016)

1 advocates, and privatizers excel at choosing names and tag lines that are impossible to
2 argue against.

3 Rocketship is one of the largest non-profit blended charter school management
4 organization in the United States. They operate 21 schools in three states and Washington,
5 D.C.; thirteen in California, three in both Nashville, TN and Washington, D.C., and two in
6 Milwaukee, WI. In Santa Clara County, CA, they have eight TK-5 elementary schools
7 authorized by the county that served 4,254 students in the 2019–20 school year plus 1240
8 students in two district authorized schools, for a total of 5494 students.

9 ***Founders and Supporters***

10 Rocketship was founded by John Danner, Don Shalvey, Jennifer Andaluz, and Eric Resnick
11 in 2007. Danner had significant teaching experience (Nashville, TN public schools) prior to
12 Rocketship, as did Shalvey (Aspire Public Schools) and Andaluz (Downtown College Prep).
13 Resnick, the fourth member of the founding group was a hedge fund manager who had a
14 “a deep understanding of financial management and real estate transactions” (Danner,
15 2006, p. 13). The inclusion of Resnick, an expert in real estate transactions, at the very
16 beginning of Rocketship, is interesting because one of the preferred ways for charter
17 school investors and founders to generate profits is via real estate deals. John Danner
18 eventually left Rocketship in 2013 to found Zeal, an online math tutoring tool, and was
19 replaced by Preston Smith who became CEO.

20 Not mentioned in the first charter petition, nor in the Articles of Incorporation of
21 Rocketship Education, the owners of the first Rocketship school, were Preston Smith, Matt
22 Hammer, and Reed Hastings, CEO of Netflix. Smith became the first principal of the
23 Rocketship’s first school, Mateo Sheedy, and was subsequently listed as a Rocketship
24 co-founder in the charter petition for Rocketship’s second school. Hammer brought
25 Danner and Smith together, and has relentlessly promoted charter schools through his

1 advocacy non-profit, Innovate Public Schools.²⁰ Hastings proselytized Rocketship to the
 2 larger charter school community and when he promised Rocketship \$250K for each of the
 3 first eight Rocketship schools they opened (Whitmire, 2014, p. 50), his donation caught the
 4 attention of philanthropic venture funds.

5 ***Rocketship History***

6 The first Rocketship school, Mateo Sheedy, opened in Santa Clara County in 2007.
 7 Rocketship's initial petition to the San José Unified School District was denied, so they
 8 appealed to the Santa Clara County Board of Education, which granted their petition. Over
 9 the years, Rocketship opened ten schools in Santa Clara County. Of those ten, only two
 10 were authorized by a public school district. The remainder were either countywide charters
 11 or charter schools whose petitions were denied by the local public school district, but
 12 subsequently approved by the Santa Clara County Board of Education. Table 2 on the next
 13 page lists the eleven Rocketship schools that were approved and the ten that opened. Note
 14 that only two were approved by the school district in which expected to locate. This
 15 lopsided result show much charter school law is tilted in favor of charter schools. The irony
 16 of freemarketeers promoting charter schools shouldn't be lost on readers.

17 ***Rocketship Finances***

18 Charter schools have a number of unique financial needs. They need startup funds,
 19 operating funds, and often funds to expand, funds that public schools do without.
 20 Rocketship is no exception. The *operations* of online and blended charter schools are funded
 21 by federal, state, and local governments, but funding *expansion* may or may not be funded
 22 with tax dollars, depending on the laws of a particular state. The difference between what's
 23 funded at taxpayer expense and what's not must somehow be funded with outside money.

²⁰<https://innovateschools.org/>

Table 2
Rocketship schools in Santa Clara County, California

School	Type	Opened	Renewed	Notes
Mateo Sheedy	District appeal	2007	2009, 2015	Denied by SJUSD, approved by SCCOE
Sí Si Puede	District appeal	2009	2011, 2017	Denied by ARUSD, approved by SCCOE
Los Sueños	Countywide	2010	2015	SCCOE countywide
Discovery Prep	Countywide	2011	2016	SCCOE countywide charter
Mosaic	District	2011	2016	Approved by ARUSD
Brilliant Minds	Countywide	2012	2017	SCCOE countywide charter
Alma Academy	Countywide	2012	2017	SCCOE countywide charter
Spark Academy	District	2013	2018	Approved by FMSD
Alum Rock	District appeal	—		Denied by ARUSD, approved by SCCOE, but withdrawn 2015
Fuerza	Countywide	2014	2018	SCCOE countywide charter
Rising Stars	District appeal	2016	2021	Denied by FMSD, approved by SCCOE

1 Regardless, startup money is needed for facilities, desks and chairs, administrator salaries,
2 legal fees, curriculum materials, etc., all of this before even one student registers. Startup
3 facilities cost vary widely. If the charter school chooses to use public school district
4 facilities under Proposition 39²¹, their need for funds will be less. Regulations drawn up by
5 the State Board of Education expand on that phrase (California Code of Regulations, Title 5,
6 §11969.), then startup facilities cost might be small; if they choose not to avail themselves of
7 Proposition 39, then startup facilities costs might involve the purchase of land and the
8 construction of school buildings, or might just involve lease payments. But since state
9 funding is tied to attendance, some startup funding is necessary. The federal government
10 provides grants, administered by the states, for this purpose.

²¹Proposition 39, passed by California voters in November 2000, contains a provision that requires public school districts to provide charter schools facilities “sufficient to accommodate the charter school’s students” (Secretary of State, California, 2000, pp. 38—41) (Smaller Classes, Safer Schools and Financial Accountability Act, 2000)

1 It appears that Rocketship has always intended to expand. Rocketship, like many other
 2 CMOs and EMOs, must expand in order to increase revenue enough to be worth the while
 3 of investors. A single school's profit is not enough to satisfy investors, but by using
 4 economies of scale, a "portfolio" of charter schools might suffice. A portfolio of charter
 5 schools is a collection of schools – almost always charter schools – managed as a whole.

6 The idea of a portfolio of schools comes from finance where a carefully chosen portfolio
 7 of investments can have lower collective risk for a given level of return than a mere
 8 collection of individual investments. (See "Markowitz Model," 2021, for an overview of the
 9 mathematics of modern portfolio theory). Hill et al. claim to have invented the term
 10 *portfolio school district* (Hill et al., 2009, p. 1) and with it a strategy to implement such a
 11 district. Just a year later, J. R. Henig et al. define portfolio strategy for schools as

12 ...a loosely coupled conglomeration of ideas held together by the metaphor of a
 13 well-managed stock portfolio and its proponents' *unshakable belief* that the
 14 first step for successful reform must be to dismantle the bureaucratic and
 15 political institutions that have built up around the status quo. [emphasis
 16 added] (J. R. Henig et al., 2010)

17 Hill et al. acknowledge, in dry, understated language, that overcoming the objections and
 18 criticisms of educators and scholars to their unshakable belief will be difficult: "It is hard to
 19 imagine that a portfolio strategy could be introduced into a major city without significant
 20 conflict." Portfolio strategy is most often associated with The Center for Reinventing Public
 21 Education, now at the Mary Lou Fulton Teachers College at Arizona State University.

22 ***Rocketship Expansion Funding***

23 **FiXme Note: This whole section needs expanding.** California, startup charter school
 24 funding has waxed and waned, in part because federal funding has varied. Currently, he
 25 U.S. Department of Education provides startup funds to states under the Charter Schools

1 Program State Educational Agency (SEA) grant program²². The federal charter school
 2 funding programs are listed in National Charter School Resource Center (2020). *The Federal*
 3 *Charter Schools Program: 2020 Annual Report* notes that

4 At the core of the Charter Schools Program are the Grants to State Entities (SE
 5 Grants). The State Entity program offers competitive grants to states, which
 6 then make subgrants within their states to *open new charter schools and replicate*
 7 *or expand existing charter schools*. (emphasis added)

8 (National Alliance for Public Charter Schools, 2020)

9 Funds like the New Schools Venture Fund²³ and the Charter School Growth Fund I & II²⁴
 10 exist to fund the development and expansion of charter schools and charter management
 11 organizations. In 2007, when Rocketship Mateo Sheedy was started, Rocketship used lines
 12 of credit and loans to fund its beginning (Danner, 2006, p. 260). Now, charter schools have
 13 many more options for funding startup or operations.

14 ***Rocketship Expansion Difficulties***

15 In 2014, the Santa Clara County Office of Education and Rocketship were sued by four
 16 Santa Clara County public school districts: Alum Rock, Mount Pleasant, Franklin-McKinley
 17 and Evergreen. At issue was the SCCOE's bulk authorization of twenty countywide
 18 Rocketship charter schools. Sixteen months, 17,500 pages of evidence, and an estimated
 19 \$435,000 later, Rocketship, the public school districts, and Santa Clara County settled
 20 (Noguchi, 2015). As part of the settlement, Rocketship agreed to withdraw 13 of the 20
 21 countywide charters thus far authorized. Since one of the remaining countywide charter
 22 had already been withdrawn, that left six potential charters still authorized but as of yet,
 23 unopened. So far, it appears that Rocketship has attempted to expand in locations beyond

²²<https://www2.ed.gov/about/offices/list/oii/csp/funding.html>

²³<https://www.newschools.org/>

²⁴<https://chartergrowthfund.org/>

1 Santa Clara County: San Pablo²⁵ and Concord in California, Nashville in Tennessee,
 2 Milwaukee in Wisconsin, Washington, D.C. and Fort Worth in Texas.

3 ***Charter School Accountability***

4 In California, all K–12 schools, including privately managed charter schools like Rocketship,
 5 must submit annual budgets, annual Comprehensive Annual Financial Reports (CAFR),
 6 and since 2014, Local Control and Accountability Plans (LCAP). LCAPs are three year plans
 7 updated in years two and three and which in detail how a school will use its funds

- 8 • to address state priorities, and
- 9 • to improve educational outcomes for foster youth, English learners, and low-income
- 10 students

11 along with the metrics which will be used to show progress (Aguinaldo et al., 2021,
 12 pp. 66–84). These characteristics make LCAPs particularly interesting from both a
 13 financial point of view and from an educational point of view.

14 **Rocketship and Privatization**

15 Some contend that the central purpose of charter schools is to disguise a money-making
 16 operation (Saltman, 2018). Whitmire, who now sits on the board of Rocketship Education
 17 and who in 2014 published *On the Rocketship*, makes note of the role that private venture
 18 funds played in Rocketship financing (Whitmire, 2014, pp. 25, 65), and it is instructive to
 19 remember that private, for-profit venture funds exist to make money. True, they often are
 20 “double bottom line” grantors (Clark et al., 2004). As Ball (cited in Tewksbury (2016, p. 75))
 21 makes clear

22 ... particularly with the added case of Rocketship, a blended learning chain of
 23 charter schools, is that the NSVF [New Schools Venture Fund] is using its clout

²⁵unsuccessfully

to further blur the lines between for-profit and nonprofit educational projects and organizations, thus smoothing the grooves [grooves?] for marketizing educational policy and practices. Ball (2012) makes the connections and rationalities clear: “Symbolically, philanthropy provides an ‘acceptable’ alternative to the state in terms of its moral legitimacy. It has also provided a kind of rehabilitation for the form of capital that were subject of ‘ill repute’ in the public imagination. Strategically, philanthropy has provided a “Trojan horse” for the modernizing move that opened the ‘policy door’ to new actors and new ideas and sensibilities.” (Ball, 2012, p. 32)

Privatizers use investment banks, hedge funds, and private equity firms as their vehicle for investing (Stowell, 2018). These investment vehicles are called *alternative investments*, in contrast to *traditional investments* like stocks and bonds. Investment banks provide the financial expertise that hedge funds and private equity firms need.

Privatization

Charter CMOs and EMOs appear to be following the lead of prison and health care privatizers. They lobby legislators intensively. They position themselves as being more efficient than the “wasteful” public sector, and they claim to be able to do better than public schools, prisons and hospitals at a lower cost. Since charter schools have positioned themselves as being in competition with TPSs, they need to do at least as well as TPSs, or failing that, appear to do so. This calls for creative marketing, and so to that end, pro-charter advocacy organizations, some university-affiliated institutions and some think tanks have been harnessed to churn out pro-charter puff pieces that are regularly debunked.²⁶ Evidently even creative marketing is not enough to prod the free market to

²⁶The National Educational Policy Center (<https://nepc.colorado.edu>) in the School of Education at the University of Colorado (Boulder) currently has over 150 NEPC Fellows who aim “to produce and disseminate high-quality, peer-reviewed research to inform education policy discussion” on a wide variety of topics. They often review pro-charter school publications which have been presented as academic research even though those publications have not been peer-reviewed and often have serious methodological problems which weaken or negate their conclusions.

1 supply the educational choice that charter school advocates feel is necessary, so pro-choice
2 advocacy organizations also lobby state representatives and fund pro-charter board
3 candidates.

4 Charter school marketing is extensive. Organizations like The 74, a reference to the 74
5 million children in America, or Innovate Public Schools, an advocacy organization,
6 produce reports, news items, briefs and what appears to be research that is slanted toward
7 charter schools and away from public schools, teachers, unions, school boards, and
8 anything and anyone who doesn't buy into the notion that American education is in
9 desperate need of reform. One technique that is used is to fund media outlets to write
10 allegedly unbiased and non-partisan articles and blog postings that promote "successes"
11 while dismissing any harm that charter schools might cause. This is the vertical integration
12 technique practice that the Sackler family has pioneered in the pharmaceutical industry.

13 **FiXme Note: Needs expansion.**

14 Unlike many other forms of privatization, charter schools have competition. When a
15 local government turns over the task of supplying water to a town, for example, there is not
16 another, public water company serving the same customers to serve as a comparison.
17 Privatization is often an all-or-nothing proposition. Charter schools, on the other hand,
18 can be and are often compared to the public schools in the same school district. The
19 presence of very visible competition has an interesting consequence: charter schools feel
20 they need to demonize public schools in addition to marketing school choice.

21 Given that charter schools in California get the same per pupil funding as do public
22 schools, there are a limited number of ways that charter schools can generate "excess"
23 funds. They can lower operating costs. They can tap into state or federal facilities grants.
24 They can collect and sell student data. They can contract out to a for-profit management
25 company. They buy technology from business partners. In all these cases, the net result is
26 always the same: money flows out of the public school system into private hands.

1 Charter schools employ fewer and less experienced teachers than public schools do. A
 2 teacher with 10 or 20 years of experience can easily command a salary that is twice that of a
 3 newly minted teacher. Rocketship has a student-to-teacher ration that's as high as 36:1
 4 (SCCOE, 2021, pp. 23–30). The combination of fewer and less expensive teachers can
 5 reduce the cost of teacher salaries to one-third of what public schools pay for teachers. This
 6 reduction is significant because teacher salaries typically account for from one-third to
 7 three-quarters of the total expense of running a school. Charter schools that employ a
 8 blended pedagogy can further reduce the cost of salaries, with virtual schools dispensing
 9 entirely with teachers, effectively reducing the single largest component of running a
 10 school to zero.

11 **Philanthro-Capitalism**

12 Philanthro-capitalism is the term used to describe the approach to philanthropy that
 13 prioritizes operating non-profits as businesses, i.e. making money while “doing good”. The
 14 epigraph to Giridharadas’s book *Winners Take All* is a quote taken from Leo Tolstoy’s
 15 *Writings on Civil Disobedience and Nonviolence* which captures the absurdity of making money
 16 while “doing good”:

17 I sit on a man's back choking him and making him carry me, and yet assure
 18 myself and others that I am sorry for him and wish to lighten his load by all
 19 means possible ... except by getting off his back.

20 For philanthro-capitalists, the techniques and vehicles used to extract a profit from public
 21 education can be impressive. K.J. Saltman lists the following in *The Swindle of Innovative*
 22 *Educational Finance* (pp.xii–xiii):

- 23 • social impact bonds,
- 24 • higher education lending and student income loans,
- 25 • charter school real estate, tax credit, and municipal schemes, and

- 1 • so-called philanthro-capitalist educational technology schemes.
- 2 Marachi and Carpenter (2020), Burris and Cimarusti (2021), Scott (2009), B. Baker and
- 3 Miron (2015) all make the same point: education has been captured by big business, and a
- 4 lot of people are making a lot of money out of it.

Research Design and Methodology

This dissertation is an exploratory case study using a public policy lens to examine the finances of Rocketship Education. Case studies are an in-depth examination of single topic that is limited in space or time. Public policy is the set of rules, laws, regulations, and mores that affect the actions of an element of society. It is “the decisions, measures, programmes, strategies and courses of action adopted by the government or the legislative body” (Knill & Tosun, 2020, p. 3). Public policy mandates and constrains Rocketship Education’s actions and how it structures its finances to meet its goals. Exploratory means that the precise data that will be collected and the precise methods used to analyze those data are not fully known in advance and will depend on this study’s findings as the inquiry evolves.

Process Overview

At a high level, the basic process followed by this dissertation is as follows:

- Gather financial data for the Rocketship schools being studied. The initial set of data being analyzed is discussed in the section ‘Data Sources’ later in this chapter.
- Identify any gaps or anomalies in the data. This is where triangulation is useful and is discussed further in the next section, ‘Triangulation’.
- Compare Rocketship’s financial processes to other public schools, to other charter schools, and to other charter school chains, looking especially for differences.
- Analyze the flow of money in and out of Rocketship. Where does money come from? Where is money being spent? What public policies (or lack of public policies) account for Rocketship’s actions?

Explaining the finances of Rocketship Education is the heart of this dissertation.

Where do Rocketship’s revenues come from? Where are they spending that revenue? And, critically, if Rocketship takes in more money than it spends on education, where does that money go?

For example, it is possible that Rocketship Education might use its revenue stream as collateral and issue so called general obligation bonds (GO bonds) which are purchased by

1 entities that are unrelated to education such as hedge funds or wealthy individuals. All
2 bonds are risky to some extent, some much more than others, and the purchasers of those
3 bonds are compensated for taking on that risk by being paid interest on the amount
4 borrowed. An immediate question comes to mind: Is the interest rate appropriate for the
5 risk being taken on? Answering that question entails comparing Rocketship Education to
6 other, similar borrowers. If the interest rate is higher than expected, then Rocketship
7 Education is effectively giving some of its revenue away. Another question one might ask is,
8 “How is Rocketship Education spending its bond proceeds?” Are those expenses in line with
9 what other charter school chains or public school districts are spending their bond
10 proceeds on?

11 Answering questions like these accurately, completely, and rigorously requires
12 understanding not only Rocketship Education’s finances, but also the finances of other
13 schools or school districts in order to make valid comparisons. In addition, one must also
14 dig deeply into how entities associated with Rocketship Education, might or might not
15 benefit that association.

16 ***Triangulation***

17 The existence of multiple sources of data allows *triangulation* to be used. While
18 triangulation in the social science research often refers to the mixed methods use of
19 quantitative and qualitative methodologies, the lay definition refers to the analysis of
20 multiple forms of corroborating evidence in the form of financial and media
21 documentation. For example, Bhandari (2022) notes that one of the forms of triangulation
22 is “[u]sing data from different times, spaces and people” and also that “[t]riangulation in
23 research means using multiple datasets, methods, theories and/or investigators to address

1 a research question. It's a research strategy that can help you enhance the validity and
 2 credibility of your findings."²⁷

3 ***Looking Ahead***

4 The remainder of this chapter first looks at how charter and public schools are financed in
 5 California by describing the normal, common financial disclosures made by all districts
 6 and schools, including charter schools. These should provide a high level sense of charter
 7 and public school financing in California, a common base line. In fact, these disclosures
 8 should characterize the finances of Rocketship completely and accurately. The topic of
 9 Rocketship finances is quite broad because, in addition to all of the financial dealings of
 10 traditional public schools, almost all of which also apply to charter schools, charter schools
 11 have large and immediate needs for facilities that TPSs typically don't have. This brings
 12 into the picture bonds, loans, grants, leases, construction, and the purchase and sale of real
 13 estate.

14 The next section discusses how potential gaps or anomalies in the financial data might
 15 be discovered. This is where triangulation can be used to cross-check the validity of that
 16 data. Does everything add up? Are there important, missing documents? How much do
 17 these gaps or anomalies matter? Are the oddities long-standing or fleeting?

18 Once data has been collected, this study will have as complete and as accurate picture
 19 of Rocketship's finances as possible using only publicly available documents. The third
 20 section will shift to how Rocketship can be compared to other demographically similar
 21 charter school chains and to public school districts. Assuming that there are few financial
 22 oddities, this section will compare Rocketship's finances to other demographically similar
 23 schools. Norms and context do matter if the goal is to make fair comparisons. For example,

²⁷Triangulation does not imply exactly three concepts or ideas; often, as is in this dissertation, more than three concepts, ideas, data are combined in the analysis.

1 paying a superintendent an annual salary of half a million dollars may be the norm in a
 2 large urban district of 100,000 students, but wildly inappropriate for a small rural district
 3 of 1000 students. Are Rocketship Education's schools (financially) like other charter schools
 4 or traditional public schools? If not, how are they different?

5 Lastly, the fourth section in this chapter will describe how this dissertation will study
 6 the flows of money in and out of Rocketship. Previously, this study will have looked at
 7 amounts of money at points in time. Just as important are the flows of money. Where do
 8 they come from, and where do they go? For example, Rocketship lets contracts, just like any
 9 school or district. Are these contracts forms of self-dealing? Are they priced comparably to
 10 the market? Are there assets that are being sold at below market rates or leased at above
 11 market rates?

12 **School Financing in California (2019–20)**

13 Primary and secondary schools (grades K–12) in California are financed with a
 14 combination of federal, state, and local monies as seen in Figure 1, *California 2019–20 K–12*
 15 *Funding by Source*. Since federal funds account for only 8.01% of total funding for
 16 California's elementary school children (Legislative Analyst's Office, 2021), the federal
 17 contribution will not be considered further. Note that federal facilities grants to charter
 18 schools are not part of this 8.01%.

19 There are actually three versions of California's education budget: those for the current
 20 year (enacted), those for the prior year (revised) and those for the year prior to that (final).
 21 In June of every year, the California Legislature passes a budget and the Governor signs it
 22 into law. This is called the enacted budget.²⁸ During the course of the fiscal year, revisions
 23 are made to this enacted budget either because of circumstance or because of changed

²⁸ California's budget is usually passed the night before the June 15th deadline. This version of the budget describes the *intent* of the Governor and the Legislature in enacting the budget. The real work is done in what are called *trailer bills* that are passed piecemeal in the months following the adoption of the official budget.

Figure 1
California 2019–20 K–12 Funding by Source

K-12 Funding by Source

(Dollars in Millions)

	2017-18	2018-19	2019-20	Change From 2018-19	
	Final	Revised	Enacted	Amount	Percent
Proposition 98					
General Fund ^a	\$47,194	\$48,327	\$49,322	\$994	2.1%
Local property tax	19,644	20,645	21,921	1,276	6.2%
Subtotals	\$66,839	\$68,973	\$71,243	\$2,270	3.3%
Other State					
Other General Fund	\$6,879	\$9,749 ^b	\$10,503 ^b	\$754 ^c	7.7%
Lottery	\$1,382	\$1,305	\$1,304	-\$1	-0.1%
Special funds	\$75	\$79	\$228	\$149	189.0%
Subtotals	\$8,336	\$11,133	\$12,036	\$903 ^c	8.1%
Other Local^d	\$12,023	\$12,712	\$11,814	-\$898	-7.1%
Federal	\$7,435	\$8,190	\$8,284	\$94	1.1%
Total	\$94,633	\$101,008	\$103,377	\$2,369	2.3%
Students ^e	5,960,120	5,944,769	5,933,407	-11,362	-0.2%
Proposition 98 funding per student	\$11,214	\$11,602	\$12,007	\$405	3.5%
Total funding per student	\$15,878	\$16,991	\$17,423	\$432	2.5%

^a Consists of funding for K-12 education, preschool, and other agencies serving K-12 students.

^b Includes \$3.9 billion in additional retirement payments authorized in the 2019-20 budget package (\$2.8 billion attributed to 2018-19 and \$1 billion attributed to 2019-20).

^c These year-to-year comparisons are notably affected by how the administration attributed the additional retirement payments authorized in the 2019-20 budget package across fiscal years.

^d Includes revenue from local fees, property taxes collected in excess of the Local Control Funding Formula allotments, parcel taxes, and reimbursements.

^e Reflects average daily attendance.

Note: Legislative Analyst's Office (2021). In the public domain.

1 priorities, and this now becomes the revised budget. But even then, this budget isn't final.
 2 Technical adjustments still need to be made: Exactly how much money was spent, or what
 3 was misclassified and improperly allocated will change the revised budget numbers. This
 4 then becomes the final budget.

5 Figure 1 on the preceding page, *California 2019–20 K–12 Funding by Source*, shows what
 6 money California has to fund its primary and secondary educational system, i.e. grades
 7 K–12. This money is then allocated to local educational agencies (LEAs), through a formula
 8 known as the Local Control Funding Formula (LCFF) to individual charter schools, county
 9 offices of education, and local public school districts. The total amount of money for K–12
 10 funding is allocated using a formula that was enacted by voters in 1988 (LAO, 2017):

11 Proposition 98. Prop. 98 was originally meant to be the minimum guaranteed funding
 12 level, but has been instead used as a ceiling. The Legislative Analyst's Office (LAO) terms
 13 Prop. 98 "A Tale of Complexity" and says that "A Plethora Tests and Rules Govern the
 14 Minimum Guarantee", and that "State Has Made Myriad Adjustments to the Proposition 98
 15 Calculations". Undoubtedly LCFF is complex, but LCFF is better than what existed
 16 previously, the Revenue Limit System. That system was also complex, but in a completely
 17 difference way, and had many separately funded programs called categorical programs,
 18 each with their own requirements, rules, and funding levels.

19 As seen in Figure 1 on the previous page, Proposition 98 funding accounts for nearly
 20 70% of California's K–12 funding, the remainder coming from local property taxes and fees,
 21 and from various state sources. This money gets distributed to county offices of education
 22 which then distribute it to public school districts. Districts then distribute funds to charter
 23 schools. Figure 2 *LASD 2019–20 All Funds Summary* in section on page 50 shows how one
 24 public school district, the Los Altos School District (LASD) breaks down its revenues. The
 25 All Funds Summary is akin to a business's income statement.

The Financing of Charter Schools

Charter schools are financed the same way as public schools are, from the same pot of money, using the same set of rules, except for one significant difference: how they finance facilities. Charter schools have no taxing authority as do public schools, so they cannot pass bonds or parcel taxes. This lack of taxing authority means that charter schools are either forced to use public school facilities under Proposition 39, or to seek grants and donations. The federal government provides significant amounts of facilities grant money and relies on the states to administer the program.

Since there are numerous publicly available sources of the same charter school financial data, the raw materials needed for triangulation are available: these are, in roughly chronological order, petitions/renewals, budgets, LCAPs, interim financial statements, and Comprehensive Annual Reports (CAFRs). Although petitions are not submitted under penalty of perjury, any material change to a petition would likely be cause for a re-evaluation of the petition, something that is undesirable. Petitions are presented at the start of a charter school's life and whenever a charter needs to be renewed.

Next in rough chronological order are budgets which are defined by four reports. First is an annual budget which defines how a charter school will spend its revenues in the following fiscal year. Along with the budget, all schools need to approve a Local Control and Accountability Plan (LCAP) that explains how a school's expenditures over a three year period will address all state priorities plus any locally developed priorities. Although the LCAP is a three year plan, it contains annual goals, the metrics that will be used to measure progress, and the expenditures associated with meeting those goals. After a budget is approved, actual spending is captured twice during a school year in the 1st and 2nd Interim Reports. The final budget-related report, issued in the following fiscal year, is the retrospective, independently audited CAFR. It is worth noting here that budgets are

frequently modified during a school year, but only after they have been approved by the governing board at a public meeting.

Furthermore, schools are required to present with the 1st and 2nd Interim Reports any transfers between funds that schools use to track revenues and expenditures. For example, one might see a transfer out of the general fund into a facilities maintenance fund to pay for some facilities' repair.

The following is more detail on some sources of financial data which apply to charter schools.

petitions & renewals Chronologically the first category of financial data that's publicly available is what's in a charter school's initial petition. Renewal petitions occur at five year intervals and are very similar to the initial petition. One of the required elements of any petition is a financial projection. Although no one expects a charter school (or any school for that matter) to prepare and adhere to a budget that exactly matches what's been projected, budgets are expected to be similar to actual expenditures, for some meaning of "similar".

Before the charter school is allowed to begin operation, every charter school in California is required to present to a chartering authority a petition which must contain certain required elements. The absence of one of these elements is grounds for denying the charter's petition to operate. For example, what is the intent of the charter school? How is the charter school going to measure its success or failure? What population is it targeting? And, what are its financial projections?

These petitions run anywhere from a hundred or so pages to over a thousand. They contain a wealth of data on curriculum, demographics, pedagogy, discipline, teacher recruitment, and, of course, on the charter school's finances.

budgets & LCAPs Once a charter has been granted the right to operate, it must file annually with the California Department of Education certain forms that detail its revenues and expenses. State law also mandates an annual audit by an independent accounting firm which charter schools must file with their County Office of Education. All together, these forms should provide a complete picture of a charter school's finances, and crucially, everything should be in agreement. Charters must publish at a public meeting an annual budget, and they, just like TPSs, cannot spend

– at least in theory – unbudgeted money unless the governing board approves at a public meeting any changes.

Along with a budget, charter schools must approve a Local Control and Accountability Plan (LCAP), and the LCAP needs to be in agreement with the budget.

CAFRs A major source of financial data is the annual, independently audited, consolidated financial statements of Rocketship Education. Some of these financial statements are available for non-profits associated with Rocketship Education. Similar to bond underwriters (see below), financial auditors are liable for “omitting, misstating, or obscuring [items which] could reasonably be expected to influence decisions that the primary users make on the basis of those financial statements” (Cayamanda, 2020), and this requirement tends to increase the diligence of the auditors. However, potential liability doesn’t always result in truly comprehensive financial statements; sometimes the lure of accounting fees overwhelms any misgivings, as was the case with Enron and Arthur Andersen in 2001, and apparently with Donald Trump in 2022. In general, however, fraud is thankfully rare, in part because fraud on the part of auditors would likely result in the loss of the auditor’s license, effectively ending their business.

IRS filings There are federal forms that non-profits need to file that provide some financial data. The most relevant are the IRS Forms 990, [Tax] Return of Organization Exempt from Income Tax. (Tax returns of for-profit organizations are not public documents and their contents do not have to be disclosed.)

bond prospectuses Bond prospectuses are also a source of financial information. When bonds are issued, they are described in detail in a prospectus. These documents, in addition to specifying the terms (e.g. interest rate, repayment schedule, collateral) of the bond, contain information relevant to assessing the risk associated with purchasing that bond.

Bond prospectuses can be mined for data that might not appear in petitions and financial statements because bond underwriters are “potential liability for any material misrepresentations or omissions contained in a registration statement or prospectus” (Block et al., 2008). This liability, of course, is not unlimited. If bond underwriters exercise due diligence or the misrepresentation is not material, they are probably not liable. Crucially, the definitions of *material misrepresentation* and *due diligence* depended on both statute and case law, so a bond underwriter can only

1 make a reasoned guess at their exposure to liability. The result is that bond
2 underwriters are likely to be more diligent that is absolutely necessary.

3 All of these sources should be in basic agreement, i.e. the LCFF funding received by a
4 Rocketship charter school should match what the state thinks it's sending to the school,
5 what the school reports to the state it received and spent, what independent auditors
6 report the school received and spent, and what it actually spent. If these figures are not in
7 agreement, something is amiss and should be investigated.

8 In some fashion or another, all profit must originate from Rocketship's revenue. In the
9 case of the sale-leaseback of facilities, for example, the rent over and above market rates
10 constitutes the profit, and this is an operational expense ultimately paid for by taxes. If
11 facilities are bought with public dollars (i.e. grants) and subsequently sold, the net
12 proceeds are profit.

13 **Data Sources**

14 To make the discussion of the data being collected more concrete, this section presents the
15 initial set of financial and non-financial data that will be analyzed. These fall into one of
16 four categories:

- 17 • Financial reports
- 18 • Non-financial reports
- 19 • Petitions & renewals
- 20 • Other data and datasets

21 Each is discussed in a subsection below. In order to make what's being analyzed more
22 concrete, I present some examples drawn from the Los Altos School District (LASD) for the
23 2019–20 school year. These LASD documents make good models because they have
24 consistently won the Meritorious Budget Award for Excellence from the Association of
25 School Business Officials International for the quality and comprehensiveness of its
26 financial statements.

1 **Financial Reports**

2 Only a few financial statements are needed to get a good overall picture of a school's or
3 district's finances. These are:

- 4 • The enacted Annual Budget and Interim Reports
- 5 • The audited Comprehensive Annual Financial Report (CAFR)
- 6 • The Local Control Accountability Plan (LCAP)

7 When looking at financial statements, one should look for:

- 8 • Unusually large (or small) entries
- 9 • Unusual changes year-to-year
- 10 • Unusual ratios
- 11 • Totals which do not add up or which exceed their component parts
- 12 • Entries that are not supported by detail elsewhere

13 The primary questions that these financial data analyses are seeking to answer involves a
14 clear mapping of the financial flows tied to Rocketship's ten schools in Santa Clara County.
15 That mass of data needs to be organized and interpreted, and using an interpretive
16 framework will make the analysis easier. Some examples of potential frameworks are:

- 17 • The six year forecast spreadsheet that LASD uses, an example of which is reproduced
18 in Figure 8 *LASD 2019–20 Multi-Year Projection* on page 57. Most of the elements of a
19 forecast are combinations of SACS²⁹ codes. The main drawback of using this
20 framework is that each school would have to have its elements extracted from their
21 SACS submissions. The main benefit is that these elements have been used for years
22 and so are known to be useful in budgeting.
- 23 • A spreadsheet of the 9 high-level SACS object codes. This option is has the advantage
24 that these sums can be calculated automatically using reports available on Annual
25 Financial Data web page³⁰ maintained by the California Department of Education.
26 These reports go back to FY2003–4. The main disadvantage is that any gaps or
27 anomalies may not show up in the aggregate numbers.

²⁹The Standardized Account Code Structure (SACS) is the chart of accounts (cost centers) used by the California Department of Education. These are defined in "California School Accounting Manual: Definitions, Instructions, and Procedures." The function (activity) codes are on pp.149–151 (§325–3 *et seq.*)

³⁰<https://www.cde.ca.gov/ds/fd/fd>

- A third way of approaching the problem of making sense of large amounts of data is to use a model. Some possible models are
 - Bruce Baker’s *National Education Cost Model* (B. D. Baker et al., 2018, p. 5)
 - the Operating Resource Flow model from B. Baker and Miron (2015, p. 16)
 - the resource cost model (RCM) or the education cost function (ECF) as developed by B. D. Baker (2018, pp. 188–197)
 - ratio analysis or index analysis as in B. D. Baker and Richards (2004, pp. 70–86)

Of the four models mentioned, only the last is likely to be useful in this study’s analysis because that method can identify quickly what’s different in a particular budget or petition. However, some of the techniques used in the other models might be useful in prying out data that would otherwise not be visible.

Annual Budgets

Budgets, in California, are the first of four important financial documents that schools produce during a fiscal year. For any given fiscal year, which runs from July 1 to June 30, the first financial document is the annual budget, a forward looking financial statement, which is approved before the end of the prior fiscal year.³¹ Next are two (unaudited) interim reports, one in December, and another in March, which track how well the school or district is adhering to the approved annual budget, and finally, after a certified public accountant has audited the school or district, a comprehensive annual financial report (CAFR). State law requires that an independent auditor certify this retrospective account of the school or district’s financial activity as being an accurate representation of the school’s finances for the previous fiscal year.

Figure 2 on the facing page, *LASD 2019–20 All Funds Summary* is a very high-level summary of a school’s or a district’s budget, illustrated here with LASD’s All Funds Summary. It’s a snapshot of what the district’s revenues are expected to be, roughly where

³¹Since a school’s budget needs to be approved before the state budget is finalized, it is guaranteed that a school’s budget will need to be modified after it has been approved.

Figure 2
LASD 2019–20 All Funds Summary

	General Fund	Special Revenue Funds	Capital Project Funds	Total All Governmental Funds
REVENUES				
LCFF/Revenue Limit Sources	43,551,141	300,174	-	43,851,315
Federal Revenue	1,155,694	-	-	1,155,694
Other State Revenue	3,417,200	-	-	3,417,200
Other Local Revenue	16,387,903	22,500	1,243,180	17,653,583
TOTAL REVENUES	64,511,938	322,674	1,243,180	66,077,792
EXPENDITURES				
Certificated Salaries	25,965,289	-	-	25,965,289
Classified Salaries	10,606,613	-	-	10,606,613
Employee Benefits	16,904,698	-	-	16,904,698
Books & Supplies	1,526,084	-	-	1,526,084
Services & Other Operating Expenditures	8,453,291	300,000	1,428,474	10,181,765
Capital Outlay	162,342	-	43,000	205,342
Other Outgo	341,064	-	-	341,064
TOTAL EXPENDITURES	63,959,381	300,000	1,471,474	65,730,855
Excess (Deficiency) of Revenues Over Expenditures	552,558	22,674	(228,294)	346,938
OTHER FINANCING SOURCES/USES				
Interfund Transfers In	-	-	-	-
Interfund Transfers Out	-	-	-	-
TOTAL OTHER FINANCING SOURCES/USES	-	-	-	-
NET INCREASE/(DECREASE) IN FUND BALANCE	552,558	22,674	(228,294)	346,938
BEGINNING FUND BALANCES	107,727	3,603,040	1,745,439	5,456,206
ENDING FUND BALANCES	660,284	3,625,714	1,517,145	5,803,144

\$1 dollar difference in General Fund Ending Fund Balance due to rounding error.

Note: Kenyon (2019, p. 38). In the public domain.

- 1 that revenue is expected to come from, what the district's expenses are expected to be, and
- 2 whether revenue and expenses are expected to be in balance. It is the rough equivalent of a
- 3 business income statement.³²

- 4 Because Figure 2, *LASD 2019–20 All Funds Summary*, is a snapshot, detecting unusual
- 5 changes year-to-year is not possible. (Changes are detectable using Figure 3 on page 54
- 6 which compares fiscal two years.) However, with just a budget summary, one can

³²Schools group their finances by funds. Most of their revenue goes into the general fund, and most of their expenses come out of the general fund. Some transactions must by law be accounted for in different funds. The three largest are the General Fund, the Special Revenue Fund, and the Capital Projects Fund, and together they account for virtually all of the financial activity of a school.

1 nonetheless note some interesting ratios, for example, the percentage of expenses spent on
 2 salaries and benefits. For LASD in 2021–20, this is 80.18% which is in line with what is
 3 typical of elementary school districts in California. One can calculate the state-wide
 4 average for all districts for 2019–20 using the Data Table at www.ed-data.org/state/CA,
 5 and that comes out to 83.71%. So, LASD spends a little less on salaries and benefits than the
 6 average elementary school district in California does.

7 Calculating this ratio brings up a general issue: the year ending in 2019 and the year
 8 ending in 2020. What is an appropriate comparison group? In this particular case, the
 9 Ed-Data web site does not have county-level financial data, so the only comparison which
 10 can easily be made is at the state level. But should the state-level comparison group be all
 11 districts, or just elementary school districts? Again, the Data Table tab on
 12 www.ed-data.org/state/CA does not filter by type of district (although the Graph tab
 13 does), so, in this case, using just the Ed-Data data, our choices are forced since we cannot
 14 use state-level data.

15 The other common financial business report is the balance sheet, which identifies
 16 assets and liabilities. In the educational world, this is the statement of net position.
 17 Figure 3 on page 54 shows LASD's assets and liabilities at the end of the 2019–20 school
 18 year. Note that unlike a balance sheet, a statement of net position for schools (and other
 19 governmental entities) does not balance; assets are not exactly equal to liabilities.³³

20 As an example of a number which stands out and is therefore worth investigating,
 21 consider the large increase in Capital Assets, year over year, an increase of \$132M (line 3 of 3
 22 on page 54, *LASD YE 2020 Summary of Net Position*). In “Comprehensive Annual Financial
 23 Report FY 2020,” six notes appear immediately after Figure 3, and these provide an
 24 explanation for the increase: LASD purchased a property whose cost was \$134.9M net of

³³Business accountants achieve this seemingly low probability equality by adding a fudge factor, *owner's equity*, so that *assets = liabilities + equity* always, exactly.

1 \$2.7M in depreciation. This purchase shows up again in line 1 of Figure 6 on page 56 and
 2 explains the enormous 9052% increase in the value of LASD's largest asset in FY2019, land.

3 In addition, the "Comprehensive Annual Financial Report FY 2020" contains a section,
 4 on pp. 19–45, called *Notes to the Basic Financial Statements*. These notes are an integral part
 5 of the certified, audited annual statement, just as they are in audited financial reports in
 6 the business world; they cannot be omitted, and must be accurate and complete. Note 7B
 7 of Kenyon (2021a, p. 7), General Obligation (GO) Bond Anticipation Notes (BANs), explains
 8 how LASD uses a common technique to convert general obligation bonds into cash: issue
 9 BANs, backed by general obligation bonds, and payable when those GO bonds are issued.³⁴

10 It's important to remember is that although changes in finances can be complex, they
 11 should also be adequately explained in a transparent and complete CAFR. When the
 12 documents are incomplete or opaque is when serious concerns should be raised.

13 Within a CAFR are five summaries of financial tables that go one level deeper than the
 14 All Funds Summary. These are

- 15 • Summary of Net Position (Figure 3 on the following page)
- 16 • Change in Net Position (Figure 4 on page 55)
- 17 • Net Costs of Services (Figure 5 on page 55)
- 18 • Capital Assets (Figure 6 on page 56)
- 19 • Long-term Liabilities (Figure 7 on page 56)

20 LASD rolls up its detailed financial data into a single multi-year summary, as shown in
 21 Figure 8 on page 57. In addition to purely financial data, the multi-year summary includes
 22 the key assumptions that were behind the numbers. In fact, the first section of Figure 8 is
 23 only assumptions, and it is those assumptions which drive the numbers in sections 2–4.

³⁴One reason this makes sense is that interest rate on BANs is less than the interest rate of GO bonds, so LASD makes money by issuing BANs to pay off GO bonds. In a different situation, school districts issue tax revenue anticipation notes (TRANs) because property taxes are paid by taxpayers semi-annually and salaries are paid monthly, so districts often and predictably do not have the cash on hand to pay their employees. The solution is to issue TRANs backed by anticipated revenue, and are paid off when the school or district receives the funds.

Figure 3
LASD YE 2020 Summary of Net Position

Table 1: Summary of Net Position				
	June 30, 2019	June 30, 2020	Change	Percentage Change
Assets				
Current and Other Assets	\$ 20,044,318	\$ 65,493,755	\$ 45,449,437	227%
Capital Assets	89,045,541	221,076,448	132,030,907	148%
Total Assets	\$ 109,089,859	\$ 286,570,203	\$ 177,480,344	163%
Deferred Outflows of Resources	\$ 22,094,579	\$ 19,321,134	\$ (2,773,445)	13%
Liabilities				
Other Liabilities	\$ 2,665,639	\$ 22,680,079	\$ 20,014,440	751%
Long Term Liabilities	141,558,936	269,006,215	127,447,279	90%
Total Liabilities	\$ 144,224,575	\$ 291,686,294	\$ 147,461,719	102%
Deferred Inflows of Resources	\$ 5,549,865	\$ 9,680,588	\$ 4,130,723	74%
Net Position				
Net Investment in Capital Assets	\$ 37,623,977	\$ 64,225,229	\$ 26,601,252	71%
Restricted	7,726,718	6,825,216	(901,502)	12%
Unrestricted	(63,940,697)	(66,525,990)	(2,585,293)	4%
Total Net Position	\$ (18,590,002)	\$ 4,524,455	\$ 23,114,457	124%

Note: Kenyon (2021a, p. 6). In the public domain.

- 1 The value of this summary is that it captures in one table the key data needed to make
- 2 budgetary decisions and thus might serve as a template for what data is important.

3 **Non-Financial Reports**

4 **Local Control Accountability Plans (LCAPs)**

- 5 The principle non-financial report of schools is the Local Control Accountability Plan
- 6 (LCAP). Although the LCAP is a three year plan, it is updated annually. Typically the goals

Figure 4
LASD YE 2020 Change of Net Position

Table 2: Change in Net Position				
	June 30, 2019	June 30, 2020	Change	Percentage Change
Revenues				
Program Revenues:				
Charges for Services	\$ -	\$ 446,710	\$ 446,710	100%
Operating Grants and Contributions	10,052,323	7,968,769	(2,083,554)	-21%
Capital Grants and Contributions	-	23,000,000	23,000,000	100%
General Revenues:				
Property Taxes	63,216,247	65,285,688	2,069,441	3%
Grants and Entitlements - Unrestricted	3,933,401	2,511,734	(1,421,667)	-36%
Other	7,347,728	7,498,513	150,785	2%
Total Revenues	84,549,699	106,711,414	22,161,715	26%
Program Expenses				
Instruction	52,349,163	54,025,994	1,676,831	3%
Support Services:				
Instruction-related services	7,219,873	7,282,281	62,408	1%
Pupil services	4,381,022	4,334,692	(46,330)	-1%
General administration	4,658,051	4,519,337	(138,714)	-3%
Plant services	8,526,753	8,569,628	42,875	1%
Payments to other agencies	-	7,036	7,036	100%
Interest and Fiscal Charges	2,893,333	4,857,989	1,964,656	68%
Total Expenses	80,028,195	83,596,957	3,568,762	4%
Change in Net Position	4,521,504	23,114,457	18,592,953	411%
Beginning Net Position	(23,111,506)	(18,590,002)	4,521,504	20%
Ending Net Position	\$ (18,590,002)	\$ 4,524,455	\$ 23,114,457	124%

Note: Kenyon (2021a, p. 7). In the public domain.

Figure 5
LASD YE 2020 Net Cost of Services

Table 3: Net Cost of Services				
	Net Cost of Services for the Fiscal Year Ended June 30, 2019	Net Cost of Services for the Fiscal Year Ended June 30, 2020	Change	Percentage Change
Instruction	\$ 43,345,309	\$ 24,008,344	\$ (19,336,965)	-45%
Support Services:				
Instruction-related services	6,608,564	6,681,271	72,707	1%
Pupil services	4,033,498	4,019,853	(13,645)	0%
General administration	4,568,746	4,444,973	(123,773)	-3%
Plant services	8,526,422	8,162,012	(364,410)	-4%
Payments to other agencies	-	7,036	7,036	100%
Interest and Fiscal Charges	2,893,333	4,857,989	1,964,656	68%
Total Expenses	\$ 69,975,872	\$ 52,181,478	\$ (17,794,394)	-25%

Note: Kenyon (2021a, p. 9). In the public domain.

Figure 6
LASD YE 2020 Capital Assets

Table 5: Capital Assets				
	June 30, 2019	June 30, 2020	Increase (Decrease)	Percentage Change
Land	\$ 1,488,885	\$ 136,262,476	\$ 134,773,591	9052%
Site improvements	1,225,056	1,225,056	-	0%
Buildings and improvements	129,573,748	130,339,280	765,532	1%
Equipment	4,636,939	3,871,407	(765,532)	-17%
Total	136,924,628	271,698,219	134,773,591	98%
<i>Less: Accumulated Depreciation</i>	<i>47,879,087</i>	<i>50,621,771</i>	<i>2,742,684</i>	<i>6%</i>
Net Capital Assets	\$ 89,045,541	\$ 221,076,448	\$ 132,030,907	148%

Note: Kenyon (2021a, p. 10). In the public domain.

Figure 7
LASD YE 2020 Long-term Liabilities

Table 6: Long-term Liabilities				
	June 30, 2019	June 30, 2020	Increase (Decrease)	Percentage Change
Long-term Debt:				
General obligation bonds:				
Current interest bonds	\$ 40,665,000	\$ 95,850,000	\$ 55,185,000	136%
Unamortized bond premium	4,596,243	9,376,755	4,780,512	104%
Bond anticipation notes	10,000,000	79,000,000	69,000,000	690%
Lease-leaseback obligations	2,405,645	2,185,036	(220,609)	-9%
Subtotal long-term debt	57,666,888	186,411,791	128,744,903	223%
Other Long-term Liabilities:				
Net pension liabilities	64,535,048	65,113,381	578,333	1%
Net OPEB obligation	18,914,928	16,922,035	(1,992,893)	-11%
Compensated absences	442,072	559,008	116,936	26%
Subtotal other long-term liabilities	83,892,048	82,594,424	(1,297,624)	-2%
Total Long-term Liabilities	\$ 141,558,936	\$ 269,006,215	\$ 127,447,279	90%

Note: Kenyon (2021a, p. 11). In the public domain.

Figure 8
LASD 2019–20 Multi-Year Projection

	2020-21	2021-22	2022-23	2023-24	2024-25	2025-26
% Change in Prop Tax Collections	7.06%	4.00%	4.00%	4.00%	4.00%	4.00%
Enrollment	3,574	3,669	3,725	3,761	3,792	3,813
In-district students @ charter school	1043	1061	1061	1061	1061	1061
Total Enrollment, LASD + BCS	4,617	4,730	4,786	4,822	4,853	4,874
Transfer of Prop Tax to BCS	9,187,469	9,926,004	10,210,982	10,494,976	10,785,723	10,450,068
Cost-of-Living Adjustment (COLA)	0.00%	4.05%	2.98%	3.05%	3.00%	3.00%
Foundation Funding	2,400,000	2,500,000	2,500,000	2,500,000	2,500,000	2,500,000
Parcel Tax	820	820	820	820	820	597
Class Size, K-3	19	22	22	22	22	22
Class Size, 4-6	25	25	25	25	25	25
Class Size, 7-8	25	26	26	26	26	26
Teachers, FTE	226	220	222	223	225	226
Raises (across-the-board)	2.00%	2.00%	0.00%	0.00%	0.00%	0.00%
Cost of Step/Column Movement	355,034	355,276	357,641	358,823	361,188	362,370
Step/Col (converted to % salary inc.)	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%
Health Benefit rate increases	5.0%	7.5%	7.5%	7.5%	7.5%	7.5%
Health Benefits (converted to % salary inc.)	0.9%	1.4%	1.4%	1.4%	1.6%	1.7%
STRS rate increases	-1.0%	0.8%	1.1%	0.0%	0.0%	0.0%
Total Comp (as % of salary)	3.2%	5.4%	3.7%	2.6%	2.8%	2.9%
LCFF Sources	47,831,288	48,960,469	50,930,778	52,994,478	55,150,308	58,023,166
Federal Sources	2,966,976	1,128,389	1,162,015	1,197,456	1,233,380	1,270,382
Other State Sources	7,460,221	3,799,074	3,848,990	3,863,445	3,874,123	3,881,107
Other Local Sources	14,942,614	15,253,502	15,910,684	15,977,729	16,049,330	13,308,736
Total Revenues	73,201,099	69,141,434	71,852,467	74,033,108	76,307,141	76,483,390
Certificated Salaries	28,473,085	26,804,421	27,081,223	27,286,386	27,563,386	27,771,946
Classified Salaries	12,146,432	11,964,000	12,072,253	12,178,439	12,284,470	12,390,750
Employee Benefits	16,708,058	17,877,672	19,185,547	19,853,541	20,542,397	21,163,633
Retiree Benefits	934,490	960,791	1,001,625	1,044,194	1,088,572	1,134,836
Books & Supplies	3,926,089	1,508,677	1,542,077	1,573,747	1,607,611	1,640,136
Contract Services	9,782,495	8,879,712	8,999,752	9,143,511	9,308,868	9,477,329
Capital Outlay	251,893	235,312	240,835	246,658	253,080	259,653
Other	8,262	8,262	8,262	8,262	8,262	8,262
Total Expenses	72,230,804	68,238,847	70,131,574	71,334,737	72,656,646	73,846,545
Net Change	970,295	902,587	1,720,892	2,698,370	3,650,495	2,636,845
Adjusted Beginning Balance	4,469,801	5,440,096	6,342,683	8,063,576	10,761,946	14,412,441
Ending Balance	5,440,096	6,342,683	8,063,576	10,761,946	14,412,441	17,049,286
Encumbrances	5,000	5,000	5,000	5,000	5,000	5,000
General Fund Reserves	5,435,096	6,337,683	8,058,576	10,756,946	14,407,441	17,044,286
Reserves, Special Reserve Funds	3,590,562	3,630,562	3,690,466	3,760,585	3,839,557	3,920,188
Total Reserves	9,025,657	9,968,245	11,749,042	14,517,531	18,246,998	20,964,474
% of Expense	12.50%	14.61%	16.75%	20.35%	25.11%	28.39%

Note: Kenyon (2021b, p. 137) In the public domain.

- 1 remain the same, but their financing may change if the metrics used to measure progress
- 2 toward achieving those goals isn't showing progress. In unusual circumstances, how the
- 3 goals are to be achieved might change. LCAPs are the State of California's way of ensuring

1 that all public schools, including charter schools, meet the same set of priorities or goals.
 2 LCAPs contain specifications for how a school or district will meet all eight of the state's
 3 goals and how will achievement be measured. Apparently, some LCAPs have been on the
 4 order of 500 pages long, although the norm is much less.

5 For each activity or group of activities, schools indicate what goal is being met, if the
 6 goal includes increased services for disadvantaged student, how well the school or district
 7 has met that goal, and the money that has been allocated to achieving and reporting those
 8 goals. (The reality of what the Department of Education wants is an order of magnitude
 9 more complicated than this description, but it is accurate as far as it goes.)

10 Unlike budgets and CAFRs, LCAPs don't have to "add up", nor do they have to offer a
 11 complete financial picture, but they do have to be consistent with other data. Expenditures
 12 have to be budgeted, and the amounts budgeted need to match what's in the LCAP.

13 ***Other Data and Datasets***

14 Unlike many studies, there is not a paucity of data on Rocketship, rather there is a surfeit.
 15 The data collected so far is voluminous. The current number of pages of initial and renewal
 16 petitions runs to 7371 pages. Three bond prospectuses total over 1000 pages in total. And
 17 there are many financial data documents yet to obtain. For example, of the five categories
 18 of financial data listed in the section "The Financing of Charter Schools", only roughly half
 19 has been collected.

20 The challenge for this inquiry will be to organize the data so that gaps and anomalies
 21 can be identified, interesting and valid comparisons can be made with public schools and
 22 other charter schools, and the flows of money in and out of Rocketship can be identified.
 23 One approach would be to create a common framework and recast all the financial data
 24 from each school into that common framework. But, until the data have actually been

collected and analyses started, choosing one particular framework within which to work is likely to lead to work which will need to be redone using a different framework.

The raw data will be collected from

- Materials and recordings (when available) of authorizer approval meetings
- Marketing material, print and online, created by Rocketship
- Checks written, a record of money that has been paid out

These documents are all in the public domain and with the exception of the last, should, if they have been filed, be available from the California Departments of Education and Finance, or from the Santa Clara County Office of Education. A record of checks written is only available from Rocketship, although independent auditors have examined Rocketship's books and have determined that there are no material omissions or misrepresentations.

Non-financial Data Sources

Data sources that are not financial in nature are needed to be able to compare fairly Rocketship's schools to other schools, particularly those outside of Santa Clara County. Some of the following sources may be consulted depending on what is being compared or analyzed.

- Demographic data from counties, states, and the federal government
 - The County of Santa Clara (232 datasets)
 - The California Open Data Portal (2,668 datasets)
 - The United States Government (335,221 datasets)
- Data from many hundreds of studies of public education or charter schools
- National Center for Education Statistics (NCES) at the Institute for Education Sciences (IES)
- American Community Survey (U.S. Census Bureau)
- California Department of Education and the State Board of Education
- Santa Clara County, Charter Schools Department
- Stanford Educational Data Archive
- School Finance Indicators Database
- EdSource, Ed-Data, & other aggregators of educational data specific to California

- 1 • Court records that involve Rocketship
- 2 • Standardized test scores
 - 3 – National Assessment of Educational Progress (NAEP) [two series]
 - 4 – Early Childhood Longitudinal Study, Kindergarten Cohorts of 1998 and 2010
 - 5 (ECLS-K:1998, 2010)
 - 6 – California Assessment of Student Performance and Progress (CAASPP) and the
 - 7 Academic Progress Indicator (API)

8 Although many of these datasets are not in and of themselves financial, they will prove
 9 useful in calculating ratios of where Rocketship's spending differs from spending at other
 10 charter or public schools. If, for example, Rocketship spends less on special education on a
 11 per pupil basis than do public schools in the same geographic area, one may ask where that
 12 money is being spent. If administrator salaries are higher on a per pupil basis at
 13 Rocketship than at other similar schools, one could conclude that some of the money not
 14 spent on special education is being spent on administrator salaries.

15 **Are There Gaps or Anomalies in the Data?**

16 Determining whether there are gaps or anomalies in a charter school's financial data is
 17 time-consuming but not very complex. Reviewing the data is not difficult – usually there a
 18 no advanced algorithms to apply; basic arithmetic may be used to check if all the numbers
 19 add up.

20 So, for example, one might ask questions such as:

- 21 • Are the data accessible, or even present? Charter schools are notorious for simply not
- 22 filing required documents or filing horrendously late, or offering incomplete filings.
- 23 Petitions are not usually a problem because without a petition, or with a materially
- 24 incomplete petition, the petition will not be granted. However, once a school is
- 25 operational, late or missing filings will not bring everything to a halt. Although
- 26 Rocketship was fined for failing an attendance audit, it was allowed to continue to
- 27 operate.

- Have the data been fudged? There are forensic techniques (e.g. Benford's Law) that can point to suspect data (Zhu et al., 2021). There is also triangulation which involves comparing one source of data with another to see if they match. For example, charter petitions make forecasts of revenue and expenses. How accurate were those forecasts? Were the reasons given for anomalies plausible? foreseeable? reasonable? One mistake is not usually a sign that something is being covered up, but several large mistakes usually are.
- California requires that LEAs meet the numbers they previously forecast or explain why they didn't meet those numbers, and certify they can meet their financial obligations this year, and two years into the future. If an LEA cannot certify that they did and that they can, they might receive a visit from the California Department of Education's Financial Crisis & Management Assistance Team (FCMAT), and in the extreme case be subject to a state takeover or to involuntary closure.

The table below is an example of how a spreadsheet might be used to track what documents are available from which schools, when they were available, and any other relevant attributes. **FiXme Note: Insert example spreadsheet here.**

After the documents and data have been collected and cleaned³⁵, this study will look at comparing Rocketship's financials to traditional public schools and districts, and to other charter schools and charter school chains.

Are There More Serious Problems?

Unfortunately, charter schools and charter school chains have a long history of various kinds of fraud. Lafer (2017), In the Public Interest (2018), Burris et al. (2020), and Burris and Bryant (2020), are just a few of the reports that detail fraud and waste in charter schools. Although Rocketship has engaged in some questionable activities, it has not been implicated in anything illegal.³⁶ But with billions of dollars allocated to charter schools for

³⁵Raw data needs to be prepared so that entries are uniform across all elements of a dataset: Missing data might have to be synthesized, units made uniform, outliers removed, etc.

³⁶Rocketship schools in Santa Clara have had ties with a virtual charter school serving special education students hundred of miles away. Rocketship has also collected pandemic-relief funds intended for businesses and not available to public schools.

1 facilities in the last 15 years in California alone (Lafer, 2017, p. 4), coupled with lax or no
 2 oversight, the temptation to misappropriate funds must be strong. It is also instructive to
 3 note that Californian charter schools have fought tooth and nail to prevent any laws that
 4 would increase transparency or hold charter operators to the same conflict-of-interest
 5 standards that public schools and other government entities are held to. While the charter
 6 sector has for the most part been successful in warding off demands for accountability, the
 7 Attorney General of California issued an official ruling in 2018 stating that the Brown Act,
 8 the CPRA, and Government Code §1090 apply to charter schools as well as to other LEAs
 9 (Becerra & Medeiros, 2018).

10 However, it's not necessary to misappropriate funds to make money off of charter
 11 school facilities. As the report *Fraud and Waste in California's Charter Schools* from In the
 12 Public Interest details,

13 While charter schools constructed with general obligation bonds cannot be
 14 sold or used for anything other than the authorized school, schools
 15 constructed with tax-exempt conduit bonds become the private property of
 16 the charter operator. Even if the charter is revoked, neither the state nor a local
 17 school district can take control of this property. Additionally, schools
 18 constructed with private funding subsidized by New Market Tax Credits or
 19 acquired with private funds but whose mortgage payments are reimbursed
 20 through the Charter Facilities Grant Program (known as "SB740") are typically
 21 owned without restriction. In the Public Interest (2018, p. 6)

22 Rocketship has issued just shy of \$90M of tax-exempt bonds to "finance and/or refinance
 23 the acquisition, construction, expansion, remodeling, renovation, improvement,
 24 furnishing and equipping of the land and facilities" (California School Finance Authority,
 25 2015b, 2015a, 2017b, 2017a). These conduit bonds are exactly the kind referenced in In the
 26 Public Interest (2018). The properties owned or leased are partially paid for out of public
 27 funds but are privately owned.

1 **Red Flags**

2 When looking at financial statements, there are a number of indicators that something
3 might be amiss (N.Orrell, personal communication, December 23, 2021):

- 4 • Absent strong financial controls
- 5 • Loose controls on accessing banks accounts
- 6 • Absent anti-fraud statements
- 7 • Misplaced or misaligned incentives and goals
- 8 • Performance just above target multiple times
- 9 • Working on weekends
- 10 • Single person oversees an account
- 11 • Repeated contracting with a “supplier” for a fixed amount
- 12 • Hidden bank accounts
- 13 • Repeated transactions just below materiality
- 14 • Transactions not at arm’s length

15 Many of these items are judgment calls, i.e. they have exceedingly fuzzy boundaries.

16 Nonetheless, if several indicators are present, it should raise a red flag.

17 ***Analyzing Bond Financing***

18 Bond financing can be both complicated (a hard problem, but solution methods exist) and
19 complex (many unknowns and interrelated factors). Illustrating this are two examples of
20 the analysis from just a single prospectus, that of Rocketship’s \$43M bond offering. That
21 offering is described in the 536 pages which comprise “\$42,160,000 Charter School Revenue
22 Bonds (Rocketship Education - Obligated Group).” The \$43M offering is complicated
23 because there are many moving parts which are described in the offering in the
24 well-known language of bond finance. Terms, rates, contingencies, amounts, dates, and

1 required performance are all specified in a fashion that has withstood legal onslaught
 2 many times over. But the offering is also complex because it must also convince others that
 3 its predictions are reasonable. The most important of those predictions is that the issuer
 4 can pay the interest and repay the principal when they due.

5 The first figure, Figure 9 *Flow of Funds: Overview* gives the overall picture and shows how
 6 rents from schools (blue) are “intercepted” by the California Controller (red) and paid
 7 directly to landlords, or paid to the Gross Revenue Fund (red) from which the Master
 8 Trustee pays lessors (orange) and bond holders and expense accounts (orange). What is not
 9 shown is the \$750 per ADA (in 2017, rising to \$1,211 in 2020–21) that Rocketship will apply
 10 to lease payments. Since money is fungible, the State of California is giving Rocketship
 11 between \$2.4 and \$3.7M depending on the year, money they would otherwise have. This is
 12 effectively profit.

13 The next figure, Figure 10 “*Flow of Funds: Cross-Collateralization*” adds an important
 14 detail: how Rocketship uses its assets as collateral more than once.³⁷ In this case, if the
 15 payments of “School Tenants” are insufficient, the Master Trustee may require additional
 16 monthly payments from the “Obligated Group Representatives and Member” to
 17 supplement those from “School Tenants”.

18 These two examples show the kind of analysis that is needed to characterize a bond
 19 offering.

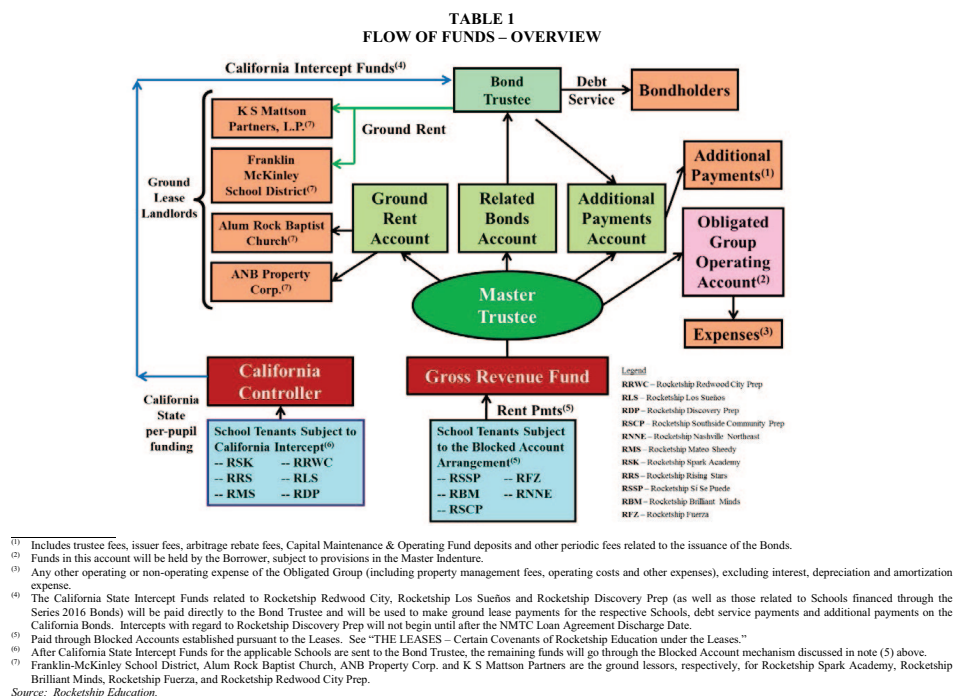
20 **How Does Rocketship Compare?**

21 ***Demographic Data***

22 When searching for anomalous data, individual Rocketship schools need to be compared to
 23 individual traditional public schools or to individual charter schools, but only after making

³⁷Cross-collateralization means using an asset as collateral for two or more obligations, here lease and bond payments.

Figure 9
Flow of Funds: Overview



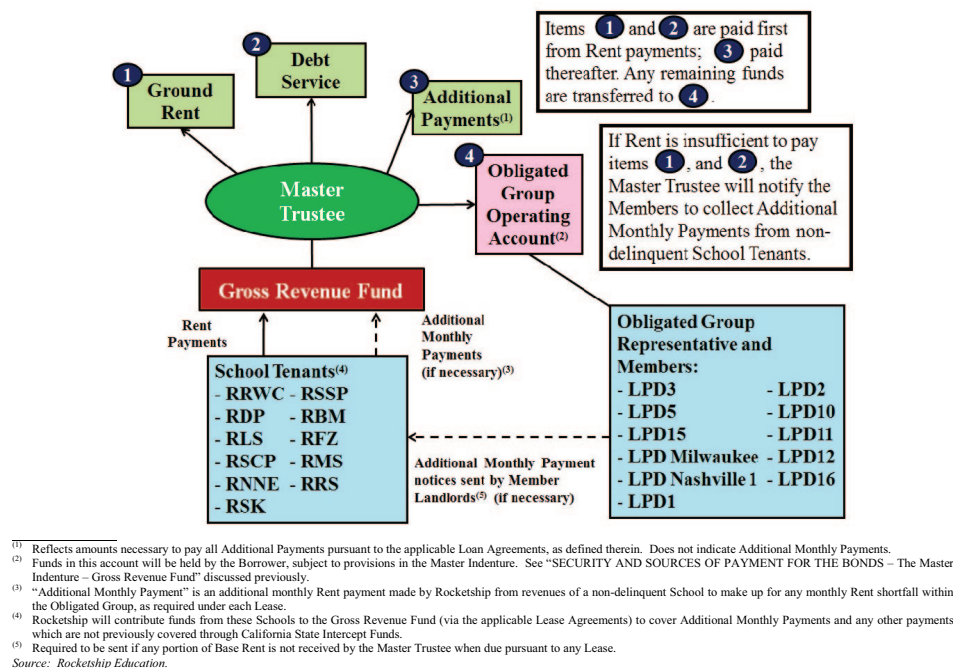
Note: California School Finance Authority (2017a, p. 53). In the public domain.

any needed adjustments to account for the demographic contexts in which the schools operate. It makes no sense to compare the finances of, say, Rocketship Mateo Sheedy in San José with the finances of the Westside Union Elementary School in Los Baños, less than 65 miles away as the crow flies. One is a medium-sized charter school in a large urban school district, the other is a larger public school in a rural public district. This means that demographic data must be used along with financial data to obtain valid and useful comparisons.

When it comes to representation, scatter plots are an easy-to-understand way of presenting many individual data points. Indeed, Bruce D. Baker makes frequent use of

Figure 10
Flow of Funds: Cross-Collateralization

TABLE 2
 FLOW OF FUNDS – CROSS-COLLATERALIZATION MECHANISM



55

Note: California School Finance Authority (2017a, p. 55). In the public domain.

- 1 scatter plots in *Educational Inequality and School Finance: Why Money Matters for America's*
- 2 *Students* to capture how outcomes vary over resources (B. D. Baker, 2018, p. 209).
- 3 B. D. Baker and Richards suggest using a dozen or so indexes to measure institutional
- 4 performance like Cost per Classroom or Effort to Succeed (B. D. Baker & Richards, 2004,
- 5 p. 82), and a suitable choice of indices vs schools is a good way of spotting anomalies.
- 6 Figure 11 "An example scatter plot" is an example scatter plot. The data is completely made
- 7 up just to illustrate what a scatter plot might look like. One could interpret the scatter plot
- 8 to mean that the Rocketship schools, those withing the grey ellipse and shown as blue
- 9 squares, fall outside the normal range of other, comparison schools, shown as red triangles

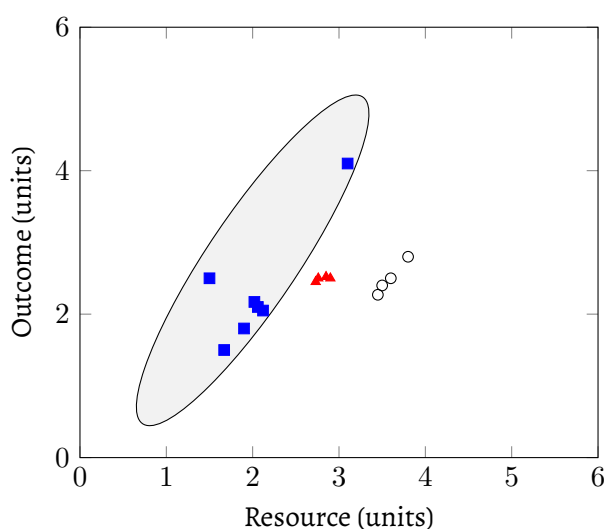


Figure 11

An example scatter plot

1 and white circles. The units could be, for example, number of students/school vs number of
 2 teachers/school, or size of facility vs lease cost/sq. ft.

3 If needed, I intend to make use of the following datasets that specialize in education.

- 4 • Data from the United States Department of Education, primarily the National
 5 Center for Education Statistics (NCES). These datasets (500) are searchable online
 6 using the Open Data Platform <http://nces.ed.gov/>. Of particular interest is the
 7 massive Digest of Education Statistics, produced annually from 1990 onwards. The
 8 Digest for 2019 runs to 651 pages.
- 9 • The NCES Open Data Platform can analyze over 15,000 data sets in its collection.
- 10 • The Institute of Education Sciences, which is part of the NCES, maintains DataLab, a
 11 tool to analyze a very large number datasets, some of which span years, thus
 12 enabling longitudinal studies to be undertaken
- 13 • The Stanford Educational Data Archive (SEDA) is a carefully cleaned and curated
 14 dataset that includes

15 ... a range of detailed data on educational conditions, contexts, and
 16 outcomes in schools and school districts across the United States. It
 17 includes data at a range of institutional and geographic levels of
 18 aggregation, including schools, districts, counties, commuting zones,
 19 metropolitan areas, and states. It includes measures of academic

achievement, achievement gaps, school and neighborhood racial and socioeconomic composition, school and neighborhood racial and socioeconomic segregation patterns, and other features of the schooling system. Reardon.etal2021

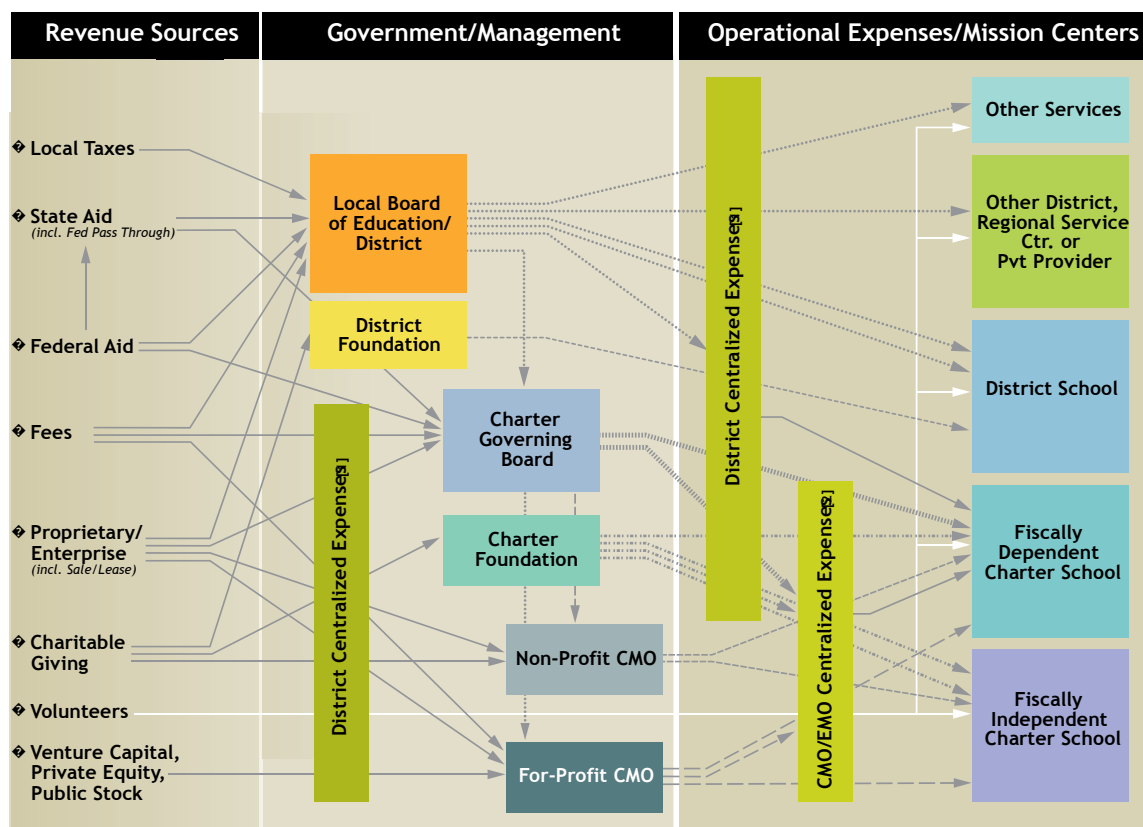
- The National Assessment of Educational Progress (NAEP), both the current results and the long-term trend results.
- The Early Childhood Longitudinal Studies (ECLS), kindergarten cohorts of 1998 & 2011.

What About the Flow of Money Through Rocketship?

Since a goal of this dissertation is to map the flow of money into and out of Rocketship, I will use diagrams similar to the one used by B. Baker and Miron (2015), which is reproduced here as Figure 12.

In this example, money flows from left to right, and there are no loops. Colors are used merely to distinguish the various blocks.

Figure 12
Operating Resource Flows



Note: B. Baker and Miron (2015, p. 16). Used with permission.

Findings and Results

Recall this study's research questions:

Research question #1 How are Rocketship finances similar to or different from other charter schools, charter school chains, or traditional schools?

Research question #2 How are Rocketship's attributes and actions similar to other privatization efforts in the United States?

Research question #3 Has Rocketship structured itself to earn a return to investors, and if so, how?

Research Question #1

Research Question #2

Research Question #3

Discussion

1

2 This chapter discusses my results and how they should be interpreted.

3 **Judging Case Studies**

2

Abbreviations

3	ARUSD Alum Rock Unified School District
4	BAN Bond anticipation note
5	CAFR Comprehensive Annual Financial Report
6	CDE California Department of Education
7	CMO Charter school management organization
8	COE County Office of Education
9	COVID-19 Corona Virus Disease 2019
10	CSBA California School Boards Association
11	DOE U.S. Department of Education
12	EC Education Code of California law
13	EMO Education management organization
14	GO bond General obligation bond
15	LASD Los Altos School District
16	LCAP Local Control and Accountability Plan
17	LCFF Local Control Funding Formula
18	LEA Local education agency
19	SACS Standardized Account Code Structure
20	SARC School Accountability Report Card
21	SARS-CoV-2 Severe Acute Respiratory Syndrome Corona Virus #2
22	SCCBOE Santa Clara County Board of Education
23	SCCOE Santa Clara County Office of Education
24	SCC Santa Clara County
25	SEDA Stanford Educational Data Archive
26	TPS Traditional Public School
27	TRAN Tax revenue anticipation note

Glossary

blended learning A method of teaching where both in-person instruction and virtual instruction are used.

charter school A quasi-private school that is publicly funded but privately run.

chartering authority A governmental entity that grants charter schools the authority to operate and which provides oversight. In California, a chartering authority could be a public school district, a county office of education, or the California Department of Education.

charter management organization (CMO) “A non-profit organization that operates or manages a network of charter schools (either through a contract or as the charter holder) linked by centralized support, operations, and oversight.” ((CA Dept of Education), 2021)

cross-collateralization A term from bond financing which indicates that an asset has been used as collateral in two different obligations.

education management organization (EMO) “A for-profit entity that operates or manages a network of charter schools (either through a contract or as the charter holder) linked by centralized support, operations, and oversight.” ((CA Dept of Education), 2021)

general obligation bonds General obligation bonds are backed by an LEA's revenues. State law limits bond debt to 2.5% of total assessed valuation for unified school district and 1.25% for elementary and high school districts.

public school Public schools are funded by taxes and are governed by a publicly elected Board of Trustees. Public schools accept any and all students who wish to enroll, at any time of year, regardless of race, national origin, sexual orientation, gender, religion, or citizenship.

typical or neuro-typical children Children without special needs.

unduplicated pupils The State of California augments school district revenue on a per pupil basis for every pupil that qualifies for free or reduced price lunch, or is an English language learner, or is a foster youth, but only on an unduplicated basis. Notably, children with special needs are not considered *unduplicated pupils*. Neither are homeless children.

References

- About the National Education Policy Center.* (n.d.). National Education Policy Center. Retrieved November 16, 2021, from <https://nepc.colorado.edu/about-us>
- Aguinaldo, L., Fry, D., Garcia, B., Gray, J., Heckler, D., Herrera, P., Hyland, K., McEntire, R., Miyashiro, R., Phillips, M., Speck, S., Kathleen Spencer, & Underwood, M. M. (2020). *School Funding and Accountability in California: 2020 Edition*. School Services of California, Inc.
- Aguinaldo, L., Fry, D., Garcia, B., Gray, J., Heckler, D., Herrera, P., Hyland, K., McEntire, R., Miyashiro, R., Phillips, M., Speck, S., Kathleen Spencer, & Underwood, M. M. (2021). *School Funding and Accountability in California: 2021 Edition*. School Services of California, Inc.
- Alexander, M. (2011). *The new Jim Crow: Mass incarceration in the age of colorblindness* (Revised edition). New Press
OCLC: ocn656451603.
- Baker, B., & Miron, G. (2015, December). *The business of charter schooling: Understanding the policies that charter operators use for financial benefit*.
- Baker, B. D. (2018). *Educational inequality and school finance: Why money matters for america's students*. Harvard Education Press.
- Baker, B. D. (2019). NEPC Review: California Charter Schools: Costs, Benefits, and Impact on School Districts (Center on Reinventing Public Education, May 2019), 27.
- Baker, B. D., & Richards, C. E. (2004). *The ecology of educational systems: Data, models, and tools for improvisational leading and learning*. Prentice Hall/Merrill.
<https://books.google.com/books?id=ygdKAAAYAAJ>
- Baker, B. D., Weber, M., Srikanth, A., Kim, R., & Atzbi, M. (2018, February). *The Real Shame of the Nation*.
- Ball, S. (2012). *Global education inc.: New policy networks and the neo-liberal imaginary*. Routledge.

- Becerra, X., & Medeiros, M. M. (2018, December 26). *101 Ops.Cal.Atty.Gen 92* (Official Reports No. 1-201). Office of the Attorney General, State of California. Sacramento, CA.
- Berends, M. (2015). Sociology and School Choice: What We Know After Two Decades of Charter Schools. *Annual Review of Sociology*, 41(1), 159–180.
<https://doi.org/10.1146/annurev-soc-073014-112340>
- Berliner, D. C., & Biddle, B. J. (1997). *The manufactured crisis: Myths, fraud, and the attack on america's public schools*. Longman Publishers USA.
<https://books.google.com/books?id=VCCUPwAACAAJ>
- Berliner, D. C., & Glass, G. V. (Eds.). (2014). *50 Myths & Lies That Threaten America's Public Schools*. Teachers College Press.
- Bhandari, P. (2022, January 3). *A beginner's guide to triangulation in research*. Scribbr. Retrieved January 15, 2022, from <https://www.scribbr.com/methodology/triangulation/>
- Black, D. W. (2020, September). *Schoolhouse Burning: Public Education and the Assault on American Democracy*. Public Affairs.
- Block, D. J., Hoff, J. M., & Bloomstein, J. (2008, March 26). *Underwriter Due Diligence In Securities Offerings*. Findlaw. Retrieved July 21, 2021, from <https://corporate.findlaw.com/finance/underwriter-due-diligence-in-securities-offerings.html>
 Reprinted with permission from the May 27th issue of the New York Law Journal
- Bray, K. J. (2015). *California's challenge: Adequately funding education in the 21st century*. California State Boards Association. West Sacramento, CA 95691. Retrieved July 4, 2019, from <https://www.csba.org/Advocacy/~media/CSBA/Files/GovernanceResources/Reports/2015CaliforniasChallenge-Adequacy.ashx>
- Green v. County School Board of New Kent County.
- Brighouse, H., Ladd, H. G., Loeb, S., & Swift, A. (2018). *Educational goods: Values, evidence, and decision-making*. University of Chicago Press.

- Brown v. Board of Education, 347 U.S. 483 (1954). <https://cdn.loc.gov/service/ll/usrep/usrep347/usrep347483/usrep347483.pdf>
- Budde, R. (1988). Education by charter: Restructuring school districts. <http://files.eric.ed.gov/fulltext/ED295298.pdf>
- Bueno de Mesquita, B. (2016). *Political economy for public policy*. Princeton University Press.
- Burris, C., & Bryant, J. (2020). *Asleep at the Wheel*. Network for Public Education.
- Burris, C., & Cimarusti, D. (2021, March). *Chartered for profit: The hidden world of charter schools operated for financial gain*.
- Burris, C., Cimarusti, D., & Kilfoyle, M. (2020, February 11). *Still Asleep at the Wheel*. Network for Public Education.
- Burris, C., & Pfleger, R. (2020, August 12). *Broken promises: An analysis of charter school closures from 1999-2017*. Retrieved October 21, 2020, from <https://networkforpubliceducation.org/wp-content/uploads/2020/08/Broken-Promises-PDF.pdf>
- (CA Dept of Education). (2021, August 25). *Charter School Annual Information Update - Charter Schools*. Charter School Annual Information Update. Retrieved February 13, 2022, from <https://www.cde.ca.gov/sp/ch/csinfosvy.asp#org>
- California Department of Education. (2019). California School Accounting Manual: Definitions, Instructions, and Procedures (2019th ed.). <https://www.cde.ca.gov/fg/ac/sa/documents/csam2019complete.pdf>
- California School Finance Authority. (2015a, August 6). \$6,385,000 California School Finance Authority.
- California School Finance Authority. (2015b, December 7). Executive Summary: \$32,0000.000 Charter School Revenue Bonds (Rocketship Education - Multiple Projects), Series 2016A (Tax-Exempt) and 2016B (Taxable).

- California School Finance Authority. (2017a, February 17). \$42,160,000 Charter School Revenue Bonds (Rocketship Education - Obligated Group).
- California School Finance Authority. (2017b, October 11). Executive Summary: \$19,000,000 California School Finance Authority Charter School Revenue Bonds (Rocketship Education – Obligated Group).
- Cayamanda, K. (2020, December 29). *Materiality Threshold in Audits - Overview and Methods*. Corporate Finance Institute. Retrieved July 21, 2021, from <https://corporatefinanceinstitute.com/resources/knowledge/accounting/materiality-threshold-in-audits/>
- Chaney, D. S., Renner, J. K., & Morazzini, Z. P. (2010). Conflicts of Interest 2010 (T. Prim & E. V. Peth, Eds.). Retrieved April 8, 2021, from <https://oag.ca.gov/sites/all/files/agweb/pdfs/publications/coi.pdf>
- Citizens League, Education Alternatives Committee. (1982, May 4). *Rebuilding Education to Make It Work*. Retrieved February 19, 2022, from <https://citizensleague.org/wp-content/uploads/2017/07/PolicyReportEducationMay-1982.pdf>
- Clark, C., William Rosenzweig, David Long, & Sara Olsen. (2004, January). *Assessing social impact in double bottom line ventures*. Retrieved May 22, 2021, from https://centers.fuqua.duke.edu/case/wp-content/uploads/sites/7/2015/02/Report_Clark_DoubleBottomLineProjectReport_2004.pdf
- Clemons, R. S., & McBeth, M. K. (2021). *Public policy praxis: A case approach for understanding policy and analysis* (4e). Routledge.
- Cohen, D., & Mikaelian, A. (2021). *The privatization of everything: How the plunder of public goods transformed america and how we can fight back*. New Press.
- Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A., & Sheikh, A. (2011). The case study approach. *BMC Medical Research Methodology*, 11(1), 100. <https://doi.org/10.1186/1471-2288-11-100>

- Danner, J. (2006, May 1). Rocketship One Public School: Charter Petition.
https://www.sccoe.org/supoffice/charter-schools-office/_layouts/15/DocIdRedir.aspx
- Darling-Hammond, L. (2012). Why is congress redlining our schools? [magazine]. *The Nation*. Retrieved January 14, 2022, from
<https://www.thenation.com/article/archive/why-congress-redlining-our-schools/>
- de Brey, C., Zhang, A., Duffy, S., & Dillow, S. A. (2022, February 10). *Digest of Education Statistics 2020, 56th Edition* (NCES 2022-009). National Center for Education Statistics at IES. Washington, D.C. <https://nces.ed.gov/pubs2021/2022009.pdf>
 Note: The PDF isn't yet available, but the online tables are.
- Domhoff, G. W. (2014). *Who rules America? The triumph of the corporate rich* (Seventh edition). McGraw-Hill Education.
- Epple, D., Romano, R., & Zimmer, R. (2016). *Charter schools: A survey of research on their characteristics and effectiveness* (w21256). National Bureau of Economic Research. Cambridge, MA. <https://doi.org/10.3386/w21256>
- Fowler, F. C. (2013). *Policy studies for educational leaders: An introduction* (4e). Pearson.
- Frankenberg, E., Siegel-Hawley, G., & Want, J. (2010). Choice without Equity: Charter School Segregation and the Need for Civil Rights Standards.
- Frankenberg, E., Ee, J., Ayscue, J. B., & Orfield, G. (2019). Harming our Common Future: 44.
- Frankenberg, E., Siegel-Hawley, G., & Wang, J. (2011). Choice without Equity: Charter School Segregation. *education policy analysis archives*, 19, 1.
<https://doi.org/10.14507/epaa.v19n1.2011>
- Friedman, M. (1955). The Role of Government in Education. In *Economics and the Public Interest* (p. 14).

- Full-Time Virtual and Blended Schools: Enrollment, Student Characteristics, and Performance* (Research Brief). (2018). National Education Policy Center, School of Education, University of Colorado. Boulder, CO. Retrieved April 10, 2020, from https://nepc.colorado.edu/sites/default/files/publications/RB%20Miron%20Virtual%20Schools%202018_0.pdf
- Garcia, D. R. (2018). *School Choice*.
- Gates, B. (2009, January 25). 2009 Annual Letter. Retrieved May 21, 2021, from <https://docs.gatesfoundation.org/Documents/2009-bill-gates-annual-letter.pdf>
- Gerring, J. (2017). *Case Study Research: Principles and Practices* (2nd ed.). Cambridge University Press. <https://doi.org/10.1017/9781316848593>
- Giridharadas, A. (2018). *Winners Take All: The Elite Charade of Changing the World*. Knopf Doubleday Publishing Group.
- Glass, G. V. (2008). *Fertilizers, pills, and magnetic strips: The fate of public education in America* (G. V. Glass, Ed.). Information Age Pub. <https://books.google.com/books?id=s4wyIF2RgxEC>
- Goldstein, D. (2015). *The teacher wars: A history of America's most embattled profession*. Anchor Books.
- Grant, C., & Osanloo, A. (2014). Understanding, Selecting, and Integrating a Theoretical Framework in Dissertation Research: Creating the Blueprint for Your "House". *Administrative Issues Journal Education Practice and Research*, 4(2). <https://doi.org/10.5929/2014.4.2.9>
- Gupta, D. K. (2011). *Analyzing Public Policy: Concepts, Tools, & Techniques* (2e). SAGE Publications.
- Haney-López, I. (2014). *Dog whistle politics: How coded racial appeals have wrecked the middle class*. Oxford University Press. <https://books.google.com/books?id=cZe1AQAAQBAJ>

- Heitzeg, N. A. (2009). —Education Or Incarceration: Zero Tolerance Policies And The School To Prison Pipeline”, 21.
- Henig, J. (2009). Chapter 3 How Cool Research Gets in Hot Waters: Privatization, School Choice, and Charter Schools. In *Spin Cycle: How Research is Used in Policy Debates: The Case of Charter Schools* (pp. 33–55). Russell Sage Foundation.
- Henig, J. R. (1994). *Rethinking school choice: Limits of the market metaphor*. Pinceton University Press. <https://doi.org/10.1515/9781400821037>
- Henig, J. R., Bulkley, K. E., & Levin, H. M. (2010). Can 'Portfolio Management' Save Urban Schools? [newspaper]. *Education Week: School & District Management*. Retrieved February 2, 2022, from <https://www.edweek.org/leadership/opinion-can-portfolio-management-save-urban-schools/2010/10>
- Hill, P., Campbell, C., Menefee-Libey, D., Dusseault, B., DeArmond, M., & Gross, B. (2009). Portfolio School Districts for Big Cities: 55.
- Horn, J. (2016). *Work hard, be hard: Journeys through "No Excuses" teaching*. Rowman & Littlefield Publishers. <https://books.google.com/books?id=ZSe7CwAAQBAJ>
- In the Public Interest. (2018). *Fraud and waste in California's charter schools*. In the Public Interest. Oakland, CA.
- Institute for Local Government. (2016). Understanding the Basics of Public Service Ethics. Retrieved April 8, 2021, from https://www.ca-ilg.org/sites/main/files/file-attachments/ethics_booklet_full_v4.pdf
- Kahn, S., & Minnich, E. (2005). *The fox in the henhouse: How privatization threatens democracy*. Berrett-Koehler Publishers. <https://books.google.com/books?id=02J82AiJ4G8C>
- Kenyon, R. (2019, June 15). Los Altos School District Annual 2019-20 Budget. <https://www.lasdschools.org/files/user/1/file/Budget%20Book%202019-20%20Final.pdf>

- Kenyon, R. (2021a, April 28). Comprehensive Annual Financial Report FY 2020.
<https://www.lasdschools.org/files/user/1/file/CAFR%20YE%202020.pdf>
- Kenyon, R. (2021b, August). Los Altos School District 2021–22 Annual Budget. Retrieved January 1, 2022, from [https://www.lasdschools.org/files/user/1/file/Budget%20Book%202021-22\(3\).pdf](https://www.lasdschools.org/files/user/1/file/Budget%20Book%202021-22(3).pdf)
- Kevin Ennis, Osa Wolff, & Erica Vega. (2016). A Guide for Local Agency Counsel: Providing Conflict of Interest Advice (2016). Retrieved April 8, 2021, from <https://www.cacities.org/Resources-Documents/Resources-Section/Open-Government/Providing-Conflict-of-Interest-Advice>
- Keynote at the Network for Public Education's 4th Annual Conference.* (2017, October 14–15). Oakland, CA. Retrieved September 16, 2020, from <https://www.youtube.com/watch?v=6DUR5MxCyGY>
- Knill, C., & Tosun, J. (2020). *Public policy: A new introduction* (2nd edition). Macmillan International Higher Education.
- Kozol, J. (1992). *Savage inequalities: Children in america's schools*. HarperCollins.
<https://books.google.com/books?id=nJf7Ph0EicUC>
- Kozol, J. (2005). *The shame of the nation: The restoration of apartheid schooling in america*. Three Rivers Press. <https://books.google.com/books?id=VWH2u0PKwyAC>
- Lafer, G. (2014). *Do Poor Kids Deserve Lower-Quality Education Than Rich Kids? Evaluating School Privatization Proposals in Milwaukee, Wisconsin* (No. 375). Economic Policy Institute. Washington, D.C.
- Lafer, G. (2017, April). *Spending blind: The failure of policy planning in california charter school funding*. In the Public Interest. Oakland, CA.
- Lafer, G. (2018). *Breaking point: The cost of charter schools for public school districts*. In the Public Interest.

Lafer, G., Crawford, C., Petrucci, L., & Smith, J. (2021, February). *Costly Failure: California Is Overpaying for Online Charter Schools That Are Failing Students*. In the Public Interest.

LAO. (2017, January 18). *A Historical Review of Proposition 98*. Retrieved February 17, 2022, from <https://lao.ca.gov/reports/2017/3526/review-prop-98-011817.pdf>

Lasswell, H. D. (1936). *Politics; who gets what, when, how*. Whittlesey house.
https://books.google.com/books?id=e_6BAAAAMAAJ

Legislative Analyst's Office. (2021, July). *2021-22 K-12 Funding by Source*. Legislative Analyst's Office | The California Legislature's Nonpartisan Fiscal and Policy Advisor. Retrieved October 21, 2021, from <https://lao.ca.gov/Education/EdBudget/Details/545>

Lennox, S. (2020, June 17). *President Trump Calls School Choice the Civil Rights Issue of Our Time*. *pjmedia.com*. Retrieved March 27, 2021, from <https://pjmedia.com/election/stacey-lennox/2020/06/17/president-trump-calls-school-choice-the-civil-rights-issue-of-our-time-n542977>

Marachi, R., & Carpenter, R. (2020, October). Silicon valley, philanthro-capitalism and policy shifts from teachers to tech. In *Strike for the common good: Fighting for the future of public education*. University of Michigan Press.
<https://doi.org/10.3998/mpub.11621094>

Markowitz model. (2021, June 12). In *Wikipedia*. Retrieved February 2, 2022, from https://en.wikipedia.org/w/index.php?title=Markowitz_model&oldid=1028260830
Page Version ID: 1028260830

Mathews, J. (2009). *Work hard. Be nice.: How two inspired teachers created the most promising schools in america*. Algonquin Books.

McCombes, S. (2019, May 8). *How to Do a Case Study | Examples and Methods*. Scribbr. Retrieved January 17, 2021, from <https://www.scribbr.com/methodology/case-study/>

Miron, G., & Gulosino, C. (2016). *Virtual Schools in the U.S.* 2016.

Miron, G., Gulosino, C., Shank, C., Elgeberi, N., Davidson, C., Alvarez, F. H. D., Jurdzy, B., Larsen, J., Pham, D., Ruder, K., Urdapilleta, L., & Urschel, J. (2021, February). *Profiles of For-Profit and Nonprofit Education Management Organizations: Fifteenth Edition*. Retrieved July 23, 2021, from <http://nepc.colorado.edu/publication/emo-%20profiles-fifteenth-ed>

A Nation at Risk (ED 226 006). (1983). National Commission on Excellence in Education, Washington, D.C. Retrieved March 25, 2020, from <https://files.eric.ed.gov/fulltext/ED226006.pdf>

National Alliance for Public Charter Schools. (2020, June 17). *The federal charter schools program: 2020 annual report*. National Alliance for Public Charter Schools. Washington, D.C. Retrieved May 24, 2021, from https://www.publiccharters.org/sites/default/files/documents/2020-06/CSP%20Annual%20Report%20_%20Final.pdf

National Charter School Resource Center. (2020). *Accessing Federal Programs - A Guidebook for Charter School Operators and Developers*. NCSRC. Bethesda, MD. Retrieved May 24, 2021, from https://charterschoolcenter.ed.gov/sites/default/files/files/field_publication_attachment/Accessing%20Federal%20Programs%20-%20A%20Guidebook%20for%20Charter%20School%20Operators%20and%20Developers.pdf

Nichols, S. L., Berliner, D. C., & Noddings, N. (2007). *Collateral Damage: How High-Stakes Testing Corrupts America's Schools*. Harvard Education Press. <https://books.google.com/books?id=kaVhDwAAQBAJ>

Noguchi, S. (2015, April 1). *San Jose: Rocketship charter scales back grand expansion plans*. The Mercury News. Retrieved April 26, 2021, from <https://www.mercurynews.com/2015/04/01/san-jose-rocketship-charter-scales-back-grand-expansion-plans/>

Orfield, G., & Frankenberg, E. (2014, May 15). *Brown at 60: Great Progress, a Long Retreat and an Uncertain Future*. The Civil Rights Project, University of California at Los Angeles. <https://civilrightsproject.ucla.edu/research/k-12->

- education/integration-and-diversity/brown-at-60-great-progress-a-long-retreat-and-an-uncertain-future/Brown-at-60-051814.pdf
- Page, S. (2018). *The model thinker: What you need to know to make data work for you*. Basic Books.
- Public Agenda. (2018). *Charter Schools in Perspective: A Guide to Research*. Public Agenda.
http://www.in-perspective.org/files/CharterSchoolsInPerspective_GuidetoResearch.pdf
 updated 2018
- Pulliam, J., & Van Patten, J. (2007). *History of education in america*. Merrill.
<https://books.google.com/books?id=dgQkAAAACAAJ>
- Rashid, Y., Rashid, A., Warraich, M. A., Sabir, S. S., & Waseem, A. (2019). Case Study Method: A Step-by-Step Guide for Business Researchers. *International Journal of Qualitative Methods*, 18, 160940691986242.
<https://doi.org/10.1177/1609406919862424>
- Ravitch, D. (2010). *The Death and Life of the Great American School System: How Testing and Choice Are Undermining Education* (Revised and Expanded). Basic Books.
- The Republican Party platform of 1980*. (1980). Retrieved March 27, 2021, from <https://www.presidency.ucsb.edu/documents/republican-party-platform-1980>
- Roithmayr, D. (2014). *Reproducing Racism: How Everyday Choices Lock In White Advantage*. NYU Press.
- Rooks, N. M. (2017). *Cutting school: Privatization, segregation, and the end of public education*. The New Press.
- Rosenberg, G. (1991). *The hollow hope: Can courts bring about social change?* University of Chicago Press.
- Rothstein, R. (2017). *The Color of Law: A Forgotten History of How Our Government Segregated America*. Liveright Publishing Corporation.

- Saltman, K. (2018). *The swindle of innovative educational finance*. University of Minnesota Press.
<https://books.google.com/books?id=Hph5DwAAQBAJ>
- SCCOE. (2021). 2020-2021 Annual Charter Schools Data Book.
- Scott, J. (2009). The Politics of Venture Philanthropy in Charter School Policy and Advocacy. *Educational Policy*, 23(1), 106–136. <https://doi.org/10.1177/0895904808328531>
- Secretary of State, California. (2000). Voter Information Guide for 2000, General Election.
https://repository.uchastings.edu/cgi/viewcontent.cgi?article=2185&context=ca_ballot_props
- Simon Fairlie. (2009). A short history of enclosure in Britain [magazine]. *The Land*, 7, 16–31.
- Smaller Classes, Safer Schools and Financial Accountability Act (2000, November).
https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=EDC§ionNum=47614.#
- Smith, J., Wohlstetter, P., Farrell, C. C., & Nayfack, M. B. (2011). Beyond ideological warfare: The maturation of research on charter schools. *Journal of School Choice*, 5(4), 444–507. <https://doi.org/10.1080/15582159.2011.624938>
- Solo, R. A. (Ed.). (1955). *Economics and the Public Interest*.
- Stowell, D. (2018). *Investment banks, hedge funds, and private equity* (3rd). Elsevier Science & Technology Books
 Additional content: <https://www.elsevier.com/books-and-journals/book-companion/9780128143520>.
- Strauss, V. (2021, October 15). *Enrollment jumps in charter schools — with big gains in worst-performing part of charter sector*. Answer Sheet. Retrieved October 18, 2021, from <https://www.washingtonpost.com/education/2021/10/15/charter-school-enrollment-jump-pandemic/>
- Suitts, S. (2019). Segregationists, Libertarians, and the Modern "School Choice" Movement. *Southern Spaces*, 57. <https://doi.org/10.18737/43330.2019>

- Suitts, S. (2020, February). *Overturing Brown: The Segregationist Legacy of the Modern School Choice Movement*. NewSouth Books.
- Tewksbury, G. E. (2016). *Schooling the Market: Venture Philanthropy, Field Building and the NewSchools Venture Fund*, 206.
- Tough, P. (2009). *Whatever it takes: Geoffrey canada's quest to change harlem and america*. Mariner Books. <https://books.google.com/books?id=qNevESlWhh0C>
- Valenzuela, A. (1999). *Subtractive Schooling: U.S.-Mexican Youth and the Politics of Caring*. SUNY Press.
- Virtual Schools in the U.S.* 2013. (2013).
- Virtual Schools in the U.S.* 2014. (2014).
- Virtual Schools in the U.S.* 2015. (2015).
- Virtual Schools in the U.S.* 2017. (2017). National Education Policy Center, School of Education, University of Colorado. Boulder, CO.
- Virtual Schools in the U.S.* 2019 (Research Brief). (2019). National Education Policy Center, School of Education, University of Colorado. Boulder, CO. Retrieved April 10, 2020, from <https://nepc.colorado.edu/sites/default/files/publications/Virtual%20Schools%202019.pdf>
- Virtual Schools in the U.S.* 2021. (2021, May). National Education Policy Center. Boulder, CO. Retrieved May 6, 2021, from <http://nepc.colorado.edu/publication/%20virtual-schools-annual-2021>
- Whitmire, R. (2014). *On the rocketship: How top charter schools are pushing the envelope*. Jossey-Bass.
- Woodworth, J. L., Raymond, M. E., Chirbas, K., Gonzalez, M., Negassi, Y., & Donge, C. V. (2015). *Online Charter School Study*. Center for Research on Education Outcomes (CREDO). Stanford University, Stanford, CA.

- Yin, R. (2018). *Case study research and applications: Design and methods* (6th ed.). SAGE Publications.
- Zhu, X., Ao, X., Qin, Z., Chang, Y., Liu, Y., He, Q., & Li, J. (2021). Intelligent financial fraud detection practices in post-pandemic era. *The Innovation*, 2(4), 100176.
<https://doi.org/10.1016/j.xinn.2021.100176>
- Zimmer, R., Buddin, R., Smith, S. A., & Duffy, D. (2019). *Nearly three decades into the charter school movement, what has research told us about charter schools?* (EdWorkingPaper: 19-156). Annenberg Institute at Brown University. Providence, RI.
<http://www.edworkingpapers.com/ai19-156>

Index

Alum Rock, 33

Billionaires Boys Club, 19

Broad, Eli, 19

Brown v. Board of Education, 14–16

charter schools, portfolio of, 32

politics, definition of, 1

Colophon

This dissertation was created almost entirely³⁸ with free, open source programs. The fonts, the text editor, the markup language, the reference manager, the operating system, and many utilities are all FOSS (free, open source software).



The body and headings were set in 12pt Alegreya. The Alegreya family of serif & sans serif typefaces was designed by Juan Pablo del Peral of Huerta Tipográfica in 2011 and immediately won praise and awards. It is a classic Renaissance typeface, a kind that was first developed in the fourteenth and fifteenth centuries in northern Italy. It comes in Regular, Medium, Bold and Black weights, all of which are available in Roman and Italic styles. There is a full set of Greek and Cyrillic letters as well as Latin small caps. All have a full set of ligatures, and Old Style, and Lining numerals. Notably, all the numeral share the same width so they line up regardless of which style is being used. (Multiplication using Roman numerals, anyone?) If any criticism can be leveled against the Alegreya superfamily, it is that they don't come in display sizes and don't contain swash characters. Otherwise it is nearly perfect.



The programs \TeX & \LaTeX and the document class `memoir` were used to format this dissertation. \LaTeX was created by Leslie Lamport as a user-friendly version of one of the first digital typesetting systems, \TeX . \TeX is one of the masterpieces of computer programming whose author, Donald Knuth, won the Turing Award in 1974. It is a testament to Knuth's brilliance as both a mathematician and a programmer that \TeX is still in use more than four decades later and arguably has no peers when it comes to typesetting complex mathematics and scientific material. It is, however, awkward to use and hard to learn. Fortunately, Leslie Lamport wrapped \TeX in a macro system, \LaTeX , which was orders of magnitude easier to use than \TeX itself.

\LaTeX is extraordinarily flexible because there are thousands of packages which implement specialized tasks. Currently, CTAN (the Comprehensive TeX Archive Network) has just shy of 6000 packages which can be downloaded. One of those packages implements the class `memoir` that was used here. It was written by Peter Wilson, and released in 2001. (I'm listed as a contributor to `memoir`, but in truth I really just corrected some minor typos.)



³⁸Two closed source, proprietary programs were used to manipulate PDF files. They could have been replaced with FOSS programs, but the results would not have been as high quality.

1 Wilson’s muse is Robert Bringhurst, author of *The Elements of Typographic Style*, the definitive
 2 book on typography and book design. The package `memoir` would undoubtedly meet with
 3 Bringhurst’s approval. The class `memoir` provides in one package nearly everything a person needs
 4 to produce “beautiful books” (Knuth’s words). Although creating a bibliography, glossary, and an
 5 index are possible in `memoir`, specialized packages are normally used instead of the built-in ones
 6 supplied by `memoir`.

7   *  

8 Zotero is a program to manage and maintain a bibliographic database and to provide citations
 9 on demand. It, along with the editor Emacs (“an operating system disguised as an editor”) and the
 10 package `reftex`, cooperate with `memoir` to provide a complete system for writing scholarly papers,
 11 theses, reports, and dissertations.

12   *  

13 All of these program run on Linux, a version of Unix. The particular distribution being used
 14 here is called Arch Linux. It is notable that Linux, Emacs, and \TeX are all programs that are decades
 15 old, have never been replaced or superseded, are constantly being improved, and are actively used.
 16 They share a common set of characteristics: their fundamental architecture is sound, extensibility
 17 is a core feature, and they and thousands of specialized packages are freely available. I predict that
 18 iPhones will barely be a faint memory before Unix, Emacs, and \TeX fade from view.