

ROCKETSHIP EDUCATION:
AN EXPLORATORY PUBLIC POLICY CASE STUDY

A Dissertation Presented to
The Faculty of the Connie L. Lurie College of Education
San José State University

In Partial Fulfillment of the Requirements for the Degree
Doctor of Education

by

Vladimir Gresham Ivanović 

December 2023

Copyright © 2022–2023 Vladimir Gresham Ivanović.

All Rights Reserved.

Rocketship Education: An Exploratory Public Policy Case Study

by Vladimir Gresham Ivanović

is licensed under a

Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License

which may be viewed at:

<http://creativecommons.org/licenses/by-nc-sa/4.0/legalcode>

The Designated Dissertation Committee Approves the Dissertation Titled

ROCKETSHIP EDUCATION: AN EXPLORATORY PUBLIC POLICY CASE STUDY

by

Vladimir Gresham Ivanović

Approved for the Educational Doctoral Program in Educational Leadership

SAN JOSÉ STATE UNIVERSITY

Roxana Marachi, Ph.D. (chair)

Professor, Teacher Education, San José State University

Noni Mendoza Reis, Ph.D.

Professor Emerita, San José State University

Gordon Lafer, Ph.D.

Professor and Co-Director of the Labor Education & Research Center,
University of Oregon

ROCKETSHIP EDUCATION:
AN EXPLORATORY PUBLIC POLICY CASE STUDY

Abstract

This dissertation is an exploratory case study of the finances of the Rocketship charter school chain, especially those related to real estate. Rocketship is a not-for-profit charter management organization, one of the first in Santa Clara County, California. This study seeks to determine if the financial transactions related to Rocketship charter schools yield profits for investors, despite Rocketship itself being a non-profit entity, and if they do, how and where do they do so. In order to characterize fairly and completely the profits of Rocketship Education itself and Rocketship-related entities, this study uses publicly available documents to track money flowing in and out of Rocketship and related entities, for example, the various Launchpad Development companies. Using data from initial and renewal charter petitions, annual budget documents, filings with county, state and federal government agencies, bond prospectuses, tax credit programs, state and federal grants, plus data from publicly available datasets, this study derives an estimate of Rocketship's profitability. It found that [Results TBD]. [Conclusion TBD]. These results, it is hoped, will serve to inform local, state, and federal legislatures when they establish public policy for charter schools, not only in California, but throughout the United States.

Keywords: Rocketship Education, charter management organization, privatization, charter finances, education public policy, profit, real estate, bonds, venture funds, philanthrocapitalism

Contents

Abstract	v
List of Tables	x
List of Figures	xi
Abbreviations	xii
Glossary	xiii
1 Introduction	1
1.1 Schools and Charter Schools	2
1.2 What is the Purpose of this Study?	6
1.2.1 Research Question	8
1.3 Theoretical and Conceptual Frameworks	9
1.3.1 Public Policy as a Theoretical Framework	9
1.3.2 A Case Study Approach as a Conceptual Framework	11
2 A Review of the Literature	13
2.1 The Birth of American Public Education	13
2.2 A History of Charter Schools	18
2.2.1 The Origins of Charter Schools in Segregation	18
2.3 Charter Schools, Free Markets and Privatization	20
2.4 Types of Charter Schools	25
2.4.1 Charter School Authorizers and Oversight	25
2.4.2 Profit-Making Status	26
2.4.3 Types of Instruction	27
2.5 Charter Schools in the United States	29
2.5.1 Charter Schools in California	30
2.6 Surveys of Charter School Research	31
2.6.1 Research on Charter School Finances	35
2.7 Rocketship	36
2.7.1 Founders and Supporters	37
2.7.2 Rocketship History	38

2.8	Rocketship Finances	38
2.8.1	Rocketship Expansion Funding	40
2.8.2	Rocketship Expansion Difficulties	42
2.8.3	Charter School Accountability	42
2.9	Rocketship and Privatization	43
2.9.1	Privatization	43
	2.9.1.1 Philanthrocapitalism	46
3	Research Design and Methodology	49
3.1	Process Overview	50
3.2	Financing Schools in California	51
3.2.1	Budgets & Interim Reports	55
3.2.2	Local Control Accountability Plans (LCAPs)	55
3.2.3	Comprehensive Annual Financial Reports	56
3.3	Charter School Financing	57
3.3.1	Charter School Financial Documents	58
3.3.1.1	Petitions & Renewals	59
3.3.1.2	Authorizer Staff Reports	60
3.3.1.3	Budgets, Interim Reports, and CAFRs	60
3.3.1.4	LCAPs,	61
3.3.1.5	Board and Committee Supporting Material	62
3.4	Charter Schools and Real Estate	62
3.4.1	Facilities Options	62
3.4.1.1	Co-Locating	63
3.4.1.2	Leasing	64
3.4.1.3	Owning	64
3.4.2	Funding Facility Ownership	65
3.4.2.1	Private Funding: Loans and Foundation Grants	65
3.4.2.2	Venture Funds	65
3.4.2.3	Tax Credits	66
3.4.2.4	Bonds	66
3.5	Other Data	67
3.5.1	Datasets	67
3.5.2	State and Federal Filings	68

3.5.3	Curated Social Media	69
3.6	Gaps and Anomalies	69
3.6.1	Triangulation	69
4	Findings	71
4.1	Rocketship History	71
4.1.1	Rocketship's Corporate Structure	71
4.2	Charter School Financing	71
4.2.1	Charter School Financial Documents	71
4.2.1.1	Petitions & Renewals	72
4.2.1.2	Authorizer Staff Reports	73
4.2.1.3	Budgets, Interim Reports, and CAFRs	73
4.2.1.4	LCAPs,	73
4.2.1.5	Board and Committee Supporting Material	73
4.3	Charter Schools and Real Estate	73
4.3.1	Rocketship Locations and Property Information	73
4.3.2	Facilities Options	73
4.3.2.1	Co-Locating	73
4.3.2.2	Leasing	73
4.3.2.3	Owning	73
4.3.3	Funding Facility Ownership	73
4.3.3.1	Private Funding, Loans, and Foundation Grants	73
4.3.3.2	Venture Funds	74
4.3.3.3	Tax Credits	74
4.3.3.4	Bonds	74
4.4	Other Data	74
4.4.1	Datasets	74
4.4.2	State and Federal Filings	74
4.4.3	Curated Social Media	74
4.5	Gaps and Anomalies	74
4.5.1	Triangulation	74
5	Discussion	77
References		78

I Appendices	95
A School Financing in California	97
B Rocketship Property Information	107
B.1 Mateo Sheedy	108
B.2 Sí Se Puede	110
B.3 Los Sueños	112
B.4 Discovery Prep	114
B.5 Mosaic	116
B.6 Brilliant Minds	118
B.7 Alma Academy	121
B.8 Spark Academy	123
B.9 Fuerza	125
B.10 Rising Stars	127
C Consolidated Financial Summaries (2010-2022)	129
Index	133
Colophon	135

List of Tables

1	Attributes of Private, Charter, and Public Schools in California	26
2	Rocketship Schools in Santa Clara County, California	39
3	Charter School Financial Documents	58
4	Charter School Facilities Options	63
5	Options for Paying for Facilities	65
6	Rocketship Property Information	73
7	Mateo Sheedy: Property Information	108
8	Mateo Sheedy: Taxable Amount of Assessed Property	109
9	Sí Se Puede: Property Information	110
10	Sí Se Puede: Taxable Amount of Assessed Property	111
11	Los Sueños: Property Information	112
12	Los Sueños: Taxable Amount of Assessed Property	113
13	Discovery Prep: Property Information	114
14	Discovery Prep: Taxable Amount of Assessed Property	115
15	Mosaic: Property Information	116
16	Mosaic: Taxable Amount of Assessed Property	117
17	Brilliant Minds: Property Information	118
18	Brilliant Minds: Taxable Amount of Assessed Property	118
19	Alma Academy: Property Information	121
20	Alma Academy: Taxable Amount of Assessed Property	122
21	Spark Academy: Property Information	123
22	Spark Academy: Taxable Amount of Assessed Property	124
23	Fuerza: Property Information	125
24	Fuerza: Taxable Amount of Assessed Property	126
25	Rising Stars: Property Information	127
26	Rising Stars: Taxable Amount of Assessed Property	128

List of Figures

1	California 2019–20 K–12 Funding by Source	53
2	<i>Rocketship's Corporate Structure (Santa Clara County only) Schools</i>	72
3	Operating Resource Flows	75
4	LASD 2019–20 All Funds Summary	99
5	LASD YE 2020 Summary of Net Position	101
6	LASD YE 2020 Change of Net Position	102
7	LASD YE 2020 Net Cost of Services	102
8	LASD YE 2020 Capital Assets	103
9	LASD YE 2020 Long-term Liabilities	103
10	LASD 2019–20 Multi-Year Projection	105
11	Mateo Sheedy Plat Map	108
12	Mateo Sheedy Satellite Photo	109
13	Sí Se Puede Plat Map	110
14	Sí Se Puede Satellite Photo	111
15	Los Sueños Plat Map	112
16	Los Sueños Satellite Photo	113
17	Discovery Prep Plat Map	114
18	Discovery Prep Satellite Photo	115
19	Mosaic Plat Map	116
20	Mosaic Satellite Photo	117
21	Brilliant Minds Plat Map	119
22	Brilliant Minds Satellite Photo	120
23	Alma Academy Plat Map	121
24	Alma Academy Satellite Photo	122
25	Spark Academy Plat Map	123
26	Spark Academy Satellite Photo	124
27	Fuerza Plat Map	125
28	Fuerza Satellite Photo	126
29	Rising Stars Plat Map	127
30	Rising Stars Satellite Photo	128
31	Financial Statements Collected	129
32	Consolidated Financial Position, Years Ending 2010–2022	130
33	Consolidated Activities, Years Ending 2010–2022	131

Abbreviations

- ARUSD** Alum Rock Unified School District
BAN Bond Anticipation Note
CAFR Comprehensive Annual Financial Report
CDE California Department Of Education
CINA Change in Net Assets
CMO Charter School Management Organization
COE County Office of Education
COVID-19 Corona Virus Disease 2019
CPRA California Public Records Act
CSBA California School Boards Association
CSFA California School Finance Authority
DOE U.S. Department of Education
EC or Ed Code Education Code of California
ECLS-K Early Childhood Longitudinal Study – Kindergarten class of 1998 or 2011
EMO Education Management Organization
FOIA (federal) Freedom of Information Act
GO bond General Obligation Bond
LASD Los Altos School District
LCAP Local Control and Accountability Plan
LCFF Local Control Funding Formula
LEA Local Education Agency
SACS Standardized Account Code Structure
SARC School Accountability Report Card
SARS-CoV-2 Severe Acute Respiratory Syndrome Corona Virus #2
SCCBOE Santa Clara County Board of Education
SCCOE Santa Clara County Office of Education
SCC Santa Clara County
SEDA Stanford Educational Data Archive
TPS Traditional Public School
TRAN Tax Revenue Anticipation Note

Glossary

ADA Average Daily Attendance, the method that the state of California uses to determine how many students are in a particular school. An alternative is to use the number of students enrolled, some of whom may attend sporadically but still need to be educated when they do attend.

arm's length transaction A transaction, usually financial, where all parties are independent and self-interested.

basic aid See “community funded”, the preferred term.

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

bond A bond is a loan whose terms (maturity date, interest rate) are fixed. Bonds are issued by a borrower (the debtor) to investors (the creditors) who are the source of the funds borrowed. The borrower is liable for repaying the debt, usually on a fixed schedule. In return for getting the funds now, the borrower agrees to compensate the creditor by repaying both the amount loaned (the principal) and interest on the amount outstanding at an agreed upon (ther interest) rate.

For example, a school district (the borrower and debtor) might issue a bond that is bought by one or more investors (the creditors) and use those funds to build a school. The school district must then repay the bond, usually in equal monthly payments, that pay back the principal and any interest to the purchasers of the bond.

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)”. A type of charter school chain.

charter school chain One or more individual charter schools owned by or operated by a parent organization, i.e. a charter management organization or a education management organization.

community funded In California, if the local property tax revenue of a public school district exceeds the state minimum educational guarantee under Prop. 98, that district is called “community funded” (formerly “basic aid”).

conduit bond A conduit bond is a type of municipal bond where the bond is paid back, not by a public entity’s reveue stream, but by a private entity, for example, a limited liability company or corporation. The public entity is merely the conduit, a passthrough entity, between investors and a private entity. (See “GASB 91” for details on what qualifies as a conduit bond.)

the the source of the funds borrowed is not an investor, but merely a passthrough between the source of the funds and the borrower. For example, a state authority might buy a bond from a school district and pay the school district with taxpayer funds. The issuer of the bonds (the school district) then owes the state authority the bond principal plus interest.

cream skimming When charter schools select the best students to admit.

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

debt, convertible An obligation (a loan or a bond) that might be converted into another form, in Rocketship’s case, a grant or donation.

debt, loans payable An obligation (a loan or a bond) that must be repaid, usually with interest, within a certain period, often in equal monthly payments made over the term of the debt.

double bottom line grantors Grantors (philanthropies) which measure social impact in addition to fiscal performance.

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 (GO) General obligation bonds are tax-exempt bonds backed by a public entities revenues. California 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.

municipal bond A municipal bond is a bond issued by a public entity and bought by investors. The public entity (the debtor) borrows from investors (the creditor). Investors loan money to the public entity, and the public entity pays the investors back over time with interest. The public entity (usually) uses its revenue stream (i.e. taxes paid) to pay back the principal and interest.

parcel tax A property tax that is not based on the value of the property.

philanthrocapitalism Using a market capitalism approach in non-profits.

portfolio school district A collection of diverse charter schools managed together.

property tax A tax based on the assessed value of a property.

Proposition 13 Passed by California voters in 2000 as a constitutional amendment, Prop. 13 devastated funding to local governments, including school districts by limiting the property tax to 1% of assess value and requiring a two-thirds majority to increase non-property taxes.

Proposition 39 Passed by California voters in 2000 as a constitutional amendment and state statute, Prop. 39 mandates that public school districts *must* provide reasonably equivalent facilities to charter schools if requested.

Proposition 98 Passed by California voters 1988 as a constitutional amendment and state statute, Prop. 98

public school Public schools are funded by taxpayers and are governed by a publicly elected Board of Trustees. Unlike charter schools, 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, citizenship, ability, disability, or language proficiency.

related party transaction A transaction, usually financial, where all parties are not independent or are self-interested, i.e. when the transaction is not an “arm’s length transaction”. A synonym for “self-dealing”.

revenue bonds Tax-exempt bonds guaranteed by a schools revenue instead of by an LEA's property tax revenue.

school choice The umbrella term used by “education reformers” to put positive spin on the privatization of public education. Charter schools, school vouchers, and educational savings accounts are the most common forms of school choice.

socio-economic status A euphemism for wealth.

student pushout When charter schools push their lowest performing students out.

tax-exempt conduit bonds Bonds issued to make loans to entities other than state or local governments are known as “conduit bonds” or “conduit issues” and state or local governments that issue these bonds are known as “conduit issuers.” Conduit issuers (usually) ensure that the revenues of the charter school are sufficient to pay off the conduit bond with interest.

theory of action A logical chain of reasoning that explains what needs to happen to go from a particular (current) social state to another (future) social state.

trailer bills Legislative bills which implement and fund elements of California’s enacted budget.

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 an unduplicated basis. Notably, children with special needs are not considered *unduplicated pupils*. Neither are homeless children.

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 well-being of tens of millions of students on whose behalf federal, state, and local governments spend upwards of three quarters of a trillion dollars annually.¹ 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.

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 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.²

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

¹The 50 states and the federal government spent \$734.9B in 2017–18. Using an inflation rate of 2%, spending for 2021–22 would be just shy of \$800B. (Author's estimate using data from "Revenues and Expenditures for Public Elementary and Secondary Education: FY 18", NCES, 2020)

²"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 exclusively to those who can afford to pay.

statewide proposition in Massachusetts which 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).³ Betsy DeVos, U.S. Secretary of Education under the former President Donald Trump, drew fierce criticism from the start of her tenure with her unwavering support of charter schools, criticism which was endlessly reported on. In short, charter schools became nationally visible.

1.1 Schools and Charter Schools

Most schools in the United States are either traditional public schools, charter schools, or private schools, with one catchall category: alternative schools. Only two states, Nebraska and North Dakota, have resisted all forms of school choice; all states have private schools and an extensive public school system. By definition, school choice encompasses charter, private, magnet, and homeschooling, i.e. every kind of school traditional except public schools. But, because school vouchers in particular are becoming more common, school choice now increasingly refers to school vouchers in addition to charter schools (Enlow, 2022).

Schools, under this definition of school choice, take a number of forms: they can, like traditional public schools be in-person, but unlike traditional public schools, they can also be completely online (virtual), or even a blend of virtual and in-person. How school choice is financed varies as well. School vouchers, various types of tax-credits, savings accounts, and tax deductions, have all been used, often augmented by tax dollars. The phrase “school choice” is also associated with 529 savings accounts, student income loans, social impact bonds, and philanthrocapitalism⁴.

Regardless of how school choice is financed, school choice complicates what used to

³Details of the financing of the Great Schools Massachusetts 2016 ballot committee are spelled out in Cunningham (2021).

⁴The use of a market-based approach in philanthropy

be a system of mostly public schools plus a few private schools that had been in place for over 150 years. This new kind of financing has raised some fundamental questions: Who benefits from this new financing? Do the children for whom education is the difference between being poor and flourishing benefit? Is education being turned into a low-risk, profitable investment for hedge funds, private equity firms, investment banks, and the one percent?

The various forms of school choice have waxed and waned, but charter schools were present at the creation of the privatization movement in education and have continued to enroll more and more students, diverting more and more dollars out of the public school system (Lafer, 2017a; Lafer, 2018; Lafer et al., 2021). School choice has spawned an entire industry devoted to marketing school choice: academic departments and institutions, educational associations, think tanks, astroturf⁵ advocacy groups, and political action committees, all of which are examples of the marketing of the privatization of public education.

According to the National Center of Education Statistics in the U.S. Department of Education, there were 7,547 elementary and secondary charter schools in the United States enrolling 3,431,230 students in 2019–20 school year (de Brey et al., 2022, Table 216.90, p.144). This represents 7.7% of the total number of elementary and secondary schools and 6.8% of the total number of students in the United States. The state with the greatest charter school presence was California which had 1,321 schools (12.7% of the total) and 674,652 students (11.0%). Within California, in the 2019–20 school year, charter schools in Santa Clara County enrolled 31,584 students (13.6% out of 231,865) (California Department of Education, n.d.).

These are notable patterns, and the COVID-19 pandemic has accelerated the growth

⁵Wordnik definition: astroturf: “The disguising of an orchestrated campaign as a “grass-roots” event – i.e., a spontaneous upwelling of public opinion.”

of charter schools, in contrast to the small decline of recent years. However, this recent growth appears to be almost completely due to the expansion of virtual charter schools (Strauss, 2021). Despite continued growth, charter schools remain controversial and have generated heated debate. Reports and studies from charter school opponents have been answered by reports and studies from charter school advocates. Both sides claim their methodology to be superior and consider the other side's fatally flawed.⁶

What the research indicates – again and again – is that *some* charter schools, under *some* circumstances, for *some* students, seem to do *somewhat* better than traditional public schools. Garcia notes that charter schools start out doing somewhat worse than public schools, but improve over time, with “no discernible difference” (Garcia, 2018, p. 119) after about five years of operation.

On the other hand, the Lubienskis showed after careful and thorough statistical analysis in (Lubienski & Lubienski, 2014) that public schools out perform charter schools. The Lubienskis used restricted-access 2003 NAEP data from just shy of 300,000 students in 4th and 8th in 6041 schools throughout the United States, plus data from the Early Childhood Longitudinal Study, Kindergarten (ECLS-K 98) class of 1998–99.⁷ So, based on the Lubienski’s analyses, there is no evidence that, on the whole, charter schools are superior to traditional public schools in academic performance. Rather, at best, they perform, on average, similarly.

If charter schools are on average no better than public schools, why are they so fervently touted as the answer to the perceived ills of American public education? Why

⁶Jeffery Henig in his book *Spin Cycle: How Research is Used in Policy Debates: The Case of Charter Schools* (J. Henig, 2009), offers a detailed examination of the war of words that resulted from just one report and one newspaper article.

⁷The Lubienskis were exceedingly thorough in their statistical analysis and devote over 80 pages in Lubienski and Lubienski (2014) to the details of their two-level hierarchical linear model (three level for the ECLS-K 98 data). Their data is available from the National Center for Educational Statistics to qualified researchers, so their analysis can be replicated.

are eye-popping sums ($10\times$ the usual amounts) spent supporting public school board candidates who favor charter schools? Why are charter schools still growing in both enrollment and in number? Is the profit motive is the overriding goal of charter schools, or are they instead driven by a genuine desire to improve the educational outcomes of the very children who could most benefit from a quality education? My goal in this dissertation is to offer some answers to questions like these by examining in detail the finances and financial structure of a single charter school chain, Rocketship Education, and entities associated with it.

I will use the term *charter school chain* to refer both to for-profit and non-profit organizations that manage more than one charter school since both take both financial and operational control away from schools and centralize it outside of schools, much like public schools are part of a public school district. Charter school chains are essentially franchise operations like McDonald's or Hertz, but in education instead of hamburgers or rental cars. For-profit charter school chains have traditionally been called *educational management organizations (EMOs)* and non-profit charter school chains *charter management organizations*, but since there is little difference between the two, I will use *charter school chains* when the distinction is unimportant.

The remainder of this chapter provides some context for why I conducted this study. The chapter *A Review of the Literature* discusses the extensive literature on charter schools. The following chapter, *Research Design and Methodology*, details what data will be collected, how it will be collected, and how it will be analyzed. The chapter *Findings* provides the results of analyzing that data in context of this study's research questions. The last chapter, *Discussion* considers the limitations and public policy implications of my study and its conclusions. Finally, it makes some suggestions for how current public policy should be changed to achieve some of the seven goals that the California Legislature set out in *The Charter School Act of 1992*.

1.2 What is the Purpose of this Study? The goal of this case study is to determine if Rocketship Education is, or might be, profitable and if so, how are these profits generated. It seeks to analyze as carefully and fully as possible the finances of Rocketship Education and of associated entities, concentrating on its real estate dealings.

Real estate, for charter schools, is of special significance because they have no facilities when they submit their initial petition. They do have several ways of obtaining the needed facilities, but because they cannot raise property or parcel taxes, nor can they pass a bond measure that's paid for by property taxes, charter schools must either obtain facilities from their home public school district or they must lease or buy facilities using funds they themselves have raised. Furthermore, Rocketship Education and Launchpad Development are incorporated ad not-for-profit corporations, so, any profits cannot be assigned to Rocketship Education or Launchpad Development themselves, but must accrue to unrelated entities.

The non-real estate finances of charter schools — at least in California — are similar to public schools. Both use the same state mandated accounting structure because both have very similar needs. Although a charter school may pay more for this or less for that, fundamentally the revenues and expenses of charter schools are similar to that of traditional public schools. But when leasing, buying and potentially constructing facilities enter the picture, significant sums are at stake. For example, a single transaction might be in the range of tens of millions of dollars.

This study concentrates on Rocketship Education⁸ because its popularity has led to core aspects of its model being adopted by other charter school chains such as the Caliber Public Schools or the Navigator Schools, both in California. It is an exemplar of a popular

⁸A note on names: Rocketship Public Schools is name that Rocketship Education is doing business as starting in June 2020, but since it has been known as Rocketship Education for much longer than it has been as Rocketship Public Schools, this study uses (mostly) the former name. Also, this study uses just Rocketship to refer to Rocketship Education and related entities, such as the various Launchpad Development LLCs that are associated with individual schools.

charter school and has had an outsized influence on public education in Santa Clara County.

This study seeks to determine if Rocketship Education or related entities are generators of profit. Furthermore, if the model that Rocketship Education uses does generate profits, can that model be used by other charter school operators within California or perhaps in other states? Many studies have examined the educational outcomes of charter schools and of charter chains, including one specifically on Rocketship's effect on Milwaukee's public schools had proposed legislation passed, but Rocketship's finances, with its real estate transactions as a focus, have not been studied in detail.

It should be noted that this study will not examine the educational outcomes of Rocketship. All charter schools offer themselves as better alternatives to traditional public schools. Rocketship, for example, claims that its pedagogical model of blended learning

- is more efficient than that of traditional public schools,
- offers personalized learning⁹ through computer-mediated instruction, and
- yet still offers a human connection (at least part of the time) that is similar to traditional public schools.

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

⁹Note 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.

1.2.1 Research Question These questions and themes lead to the following research question: Has Rocketship structured itself and related entities to earn a return to its founders and investors, focusing especially on its real estate transactions? In order to answer this research question definitively, this study must be as complete as possible, and that entails understanding the finances of public schools in California, those of charter schools in California, and finally, those of Rocketship Education and related entities.

More broadly, there are additional reasons for studying charter school finances. Are we (the states, the federal government) misallocating the money we spend on charter schools? Could we be spending our tax dollars more wisely? What did taxpayers get for these expenditures? These questions, however interesting and appealing they may be, are beyond the scope of this study and remain for future researchers to explore.

This case study is unique in that it examines in depth the finances of a single charter school chain. There have been studies of the finances of aggregations of charter school chains (e.g., all known charter school chains in the United States,¹⁰ or a selected group of charter school chains). Other studies have explored the effects of charter schools on segregation or academic achievement, or the financial impact of charter schools on their surrounding public school district. But academic studies of the finances of just a single charter school chain seem to be missing.¹¹ Further, studies focusing on real estate of a single chain do not seem to have been performed. It is hoped that the lessons learned from this case study will be used by policy makers to strengthen charter school law in California and elsewhere in order to increase desired outcomes and to minimize cost and unintended consequences.

As tempting and as important as it might be, this dissertation will not examine the

¹⁰See Miron et al. (2021) for a list of currently known charter school chains.

¹¹I distinguish between academic studies and criminal investigations. Clearly, the grand jury indictment of 11 persons associated with A3 Education was a study of a single charter school chain, but it was a criminal investigation, not an academic study.

academic outcomes of Rocketship or of other charter schools. This dissertation will restrict itself to the finances of those schools. Much excellent work has already been done evaluating charter school outcomes. Section 2.6 discusses four surveys of charter school research and one overview book.

1.3 Theoretical and Conceptual Frameworks

According to Grant and Osanloo (2014), creating and understanding the theoretical framework for one's dissertation is "one of the most important aspects in the research process." (p.12) They liken the theoretical framework of a dissertation to the blueprints that define a house. That framework both defines the organization and the structure of a dissertation, as well as what counts as elements and their relationships. A theoretical framework articulates "the researcher's understanding of how the research problem will best be explored, the specific direction the research will have to take, and the relationship between the different variables in the study." (Grant & Osanloo, 2014, pp. 16–17)

Further, a "conceptual framework offers a logical structure of connected concepts that help provide a picture or visual display of how ideas in a study relate to one another within the theoretical framework" (Grant & Osanloo, 2014, pp. 16–17). This dissertation uses a case study approach as its conceptual framework within a public policy framework, its theoretical framework.

1.3.1 Public Policy as a Theoretical Framework

A public policy framework provides a rich set of tools and techniques with which to analyze Rocketship's finances. Three factors support using a public policy framework to guide understanding and evaluating Rocketship's finances. First, charter school finance is constrained primarily by public policies set by state legislatures, the creators of charter schools. These laws regulate taxes, grants, borrowing capacity, and reporting requirements of charter schools and charter school chains (Aguinaldo et al., 2020), and

by definition, whatever falls within the purview of legislators is public policy. Second, Brighouse et al. (2018), 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” (Brighouse et al., 2018, p.1). Last, 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. (These tools and techniques will be discussed more fully in Chapter 3 or in Chapter ch:results if and when they are used.) 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. Page (2018) lists 26 major models that have been used in science, business, and medicine.

The methodology of this dissertation draws on two excellent guides to public policy, Clemons and McBeth (2021) and Gupta (2011). The first presents concepts, tools, and techniques used in analyzing public policy; the second a case study approach to public policy analysis. Fowler (2013) treats public policy in the field of education, but with an emphasis on power, politics, policy actors and the messy process of creating and implementing public policy. Clemons and McBeth concentrate on explicating different theoretical approaches to public policy, whereas Gupta is the most practically oriented.

Since much of the evidence that will be presented will include financial data, the tools and techniques which manipulate and display data play an important role. First and foremost is statistical analysis. But, as Epple et al. (2016) show in Chapter 2, being clear on what exactly is being analyzed and what are the inherent limitations of that data is fundamental. It makes no sense to analyze brilliantly the wrong data or to stretch the data beyond its limit.

1.3.2 A Case Study Approach as a Conceptual Framework

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

Gerring calls small C studies *case studies*. In this dissertation I study only one entity, Rocketship Education, and only one aspect of that entity, namely Rocketship’s finances. But I consider the topic of Rocketship’s finances look at its finances broadly, examining as many different kinds of financial transactions as are publicly available for the subset of

Rocketship schools that are in Santa Clara County. I discuss the elements of what makes a case study a good case study in Chapter 5, *Discussion*.

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

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

This introduction has made the case that public education is important to many stakeholders, but that there is also discord around larger issues like values, ideology, and implementation. Charter schools have been offered as way of disrupting American public education from its hide-bound, archaic, and sclerotic present, driving it, despite opposition, into a dynamic future where education is tailored to each child’s real needs. Establishing whether financial gain plays a key or even a primary role in American educational reform by carefully examining Rocketship’s finances is both timely and important: Rocketship Education is growing, and with it, Launchpad Development. They have served as a model for other charter school chains in the United States.

A Review of the Literature

This chapter reviews what other researchers and scholars have said about the origins of charter schools, their history, and their ostensible goals before characterizing first the finances of all public schools in California and then the unique aspects of charter school finance. Finally, it reviews the history of Rocketship Education.

American public education has – allegedly – been a failure, at least “[a]ccording to highly publicized NAEP results in the mid 1980s” (Gove & Meier, 2000). Berliner and Glass (2014) in *50 Myths & Lies That Threaten America’s Public Schools* refute those myths which have been advanced to show that American’s schools are in a crisis, and hence, in desperate need of reform. It turns out, this urge for reform has a long history: America’s schools have judged as needing reform ever since the idea of free public education took hold in the early 1800s.¹² Since then, a succession of educators and reports have documented the abysmal [sic] state of American education.

2.1 The Birth of American Public Education

Prior to the Civil War, Horace Mann introduced widely copied reforms (Pulliam & Van Patten, 2007) into the existing system of education which was then not free, not open to all, and not compulsory. Those schools had hardly changed since the founding of the Boston Latin School on April 23, 1635. In the early 1900s, John Dewey, an educational leader of the Progressive Era (1896–1916) preached reform, but it was not until the publication of *Nation at Risk* in 1983 that the modern zeal for education reform took form. *Nation at Risk* was the most influential of roughly 30 major education reform reports listed by Pulliam and Van Patten (2007) starting in 1982 and continuing up until 2005.

That American public education needed reform was repeated constantly, mainly by

¹²Wikipedia has an excellent summary article on *Education in the United States* available at https://en.wikipedia.org/wiki/Education_in_the_United_States.

conservatives, despite underwhelming evidence of its veracity and substantial evidence to the contrary. Through constant 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 and with the complete absence of a theory of action, 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 is 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 and Berliner (2007) or Glass (2008) or Berliner and Glass (2014) wrote, the idea that American education needed fundamental, pervasive reform persisted; education reform was an evidence-free endeavor.

Garcia writes in *School Choice*

The four primary arguments put forth in support of school choice are the elimination of government bureaucracies, the interjection of competition into education through market forces, the promotion of parental choice as the most granular form of local control, and school choice as the "new" civil rights issue of our time.¹³ (Garcia, 2018, p. 55)

What is noteworthy is that none of the four arguments are about student achievement or attainment. A poorly staffed, badly run, charter school located in a dangerous neighborhood is as capable of satisfying the four requirements as is a high quality charter school. Whatever school choice is about, it's not about students and how well they are

¹³Lest Garcia be tarred as anti-school choice, thereby justifying ignoring his research, Garcia is merely following Anatol Rapoport's Rules for Constructive Criticism, the first of which is to restate the argument of the person you are criticizing better than they themselves have done. See Daniel Dennett's succinct summary of "Rapoport's Rules" on Wikipedia:

https://en.wikipedia.org/wiki/Rogerian_argument%23Rapoport's_rules.

doing.

To be clear, it is not the case that every American school is a model for the rest of the world: systematic, persistent, pervasive inequities and injustices abound and have been powerfully written about in Kozol (1992) and again in Kozol (2005), Valenzuela (1999), Heitzeg (2009), and Roithmayr (2014). The Coleman Report (Coleman, 1966) concluded that ten years after *Brown v. Board of Education*, American schools were still segregated and were still unequal. Surprisingly and contrary to the expectations of many, the report laid most of the blame for unequal educational outcomes on systematic, persistent, pervasive inequalities and injustices outside of schools. The report said,

Taking all these results together, one implication stands out above all: That schools bring little influence to bear on a child's achievement that is independent of his background and general social context; and that this very lack of an independent effect means that the inequalities imposed on children by their home, neighborhood, and peer environment are carried along to become the inequalities with which they confront adult life at the end of school. For equality of educational opportunity through the schools must imply a strong effect of schools that is independent of the child's immediate social environment, and that strong independent effect is not present in American schools. (Coleman, 1966, p. 325)

The report concluded that family background, the socioeconomic background of a school, and a student's sense that they were in control of their lives were more important than race-based disparities in explaining the black-white achievement gap (Pearce, 2016).

Downey (2020), using two ECLS-K studies, 1998 and 2011, supports this conclusion but in a slightly different way. He finds that academic inequality is reduced when children are in school, and increases when children are not in school, i.e. during the summer, which runs counter to the notion that schools exacerbate the achievement gap.

None of this should be a surprise because it is also clear that those schools have been systematically underfunded for decades; their dismal performance is more likely the

result of the poverty of their neighborhoods and their lack of funding than it is the other way around. For example, the California School Boards Association's (CSBA) Education Legal Alliance Adequacy Committee found that there exists a "substantial gap in funding between what K-12 education [in California] receives and what K-12 education needs even to meet the standards prescribed by the state (Bray, 2015, *iii*). B. D. Baker et al. (2018) in their aptly titled report *The Real Shame of the Nation*, develop a *National Education Cost Model* (B. D. Baker et al., 2018) which accounts for regional cost differences as well different funding levels to show that inadequate funding is present throughout the United States. Garcia (2018) says in *School Choice* that the "existence and importance of the issues that reformers believe plague public education are based as much on tradition and reputation as they are on tangible research evidence" (Garcia, 2018, p. 54). Finally, and tellingly, grossly inadequate funding is a characteristic of communities that are racially segregated and which are not white (Darling-Hammond, 2012; Rothstein, 2017).

J. R. Henig (1994)'s book, *Rethinking school choice*, which came out a mere three years after the passage of the nation's first state charter school law in Minnesota¹⁴ and two years after the second in California¹⁵ lays out a key argument against charter schools. Henig says, "[T]he real danger in the market-based choice proposals is not that they might allow some students to attend privately run schools at public expense, but that *they will erode the public forums in which decisions with societal consequences can democratically be resolved.*" (emphasis added) (J. R. Henig, 1994, *xiii*). Translated, this means that the decisions about public education's form and content are not going to be made by parents and teachers, but by people who do not have a stake in the outcome. It is now a matter of badly misaligned incentives.

But even before that, in 1982, Earl Craig, Jr. attached a minority report to *Rebuilding*

¹⁴Laws of Minnesota 1991, chapter 265, article 9, section 3

¹⁵Education Code, Title 2, Division 4 Part 26.8, §47600 *et. seq*

Education to Make It Work which advocated for vouchers. He says in a paragraph that is as accurate today, forty years later, as it was in 1982:

In conclusion, this report is part of a national movement toward privatization of public services and responsibilities. I believe this movement will have the eventual result of a complete retreat by this society from a societal responsibility for the powerless who are difficult or expensive to educate, house, protect, etc. I believe the committee and board majority when they say that they are committed to equal access and equity. They say, trust that we will do the right thing. I do trust them, I do not trust the societal momentum of which vouchers is a part. It is a very destructive wave that has caught up many good people. It scares me to death. (Citizens League, Education Alternatives Committee, 1982, p. 48)

The belief that American schools were in crisis due to poor academic outcomes, sclerotic teachers resistant to change, ineffective and bureaucratic administrators more concerned with job safety than educating children is simply not supported by the evidence. But the idea that American schools are in crisis has been relentlessly promoted, and sheer repetition has turned fiction turned into fact, and this “manufactured crisis”, to use David Berliner and Bruce Biddle’s turn of phrase (Berliner & Biddle, 1997), has been used to justify school choice in the form of vouchers and charter schools. But charter schools didn’t actually take off until “education reformers across party lines realized that charter school laws could be crafted in ways that made it possible to open nonunion public schools, or even allow public schools to be managed by for-profit companies” (Goldstein, 2015, p. 172).

This literature review will first examine charter schools, their origins and the early research, before reviewing the types of charters which exist. It then examines the various models of charter schools such as virtual charter schools, charters which use blended learning, and charter management organizations before taking a closer look charter schools in Santa Clara County and in Rocketship in particular. It ends with a

consideration of the finances and financing of charter schools.

2.2 A History of Charter Schools

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

2.2.1 The Origins of Charter Schools in Segregation

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

Does segregation of children in public schools solely on the basis of race, even though the physical facilities and other “tangible” factors may be equal, deprive children of the minority group of equal educational opportunities?

(Warren, 1954, p. 9)

with “We believe that it does.” (p.9)

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

Not a single black child attended an integrated public grade school in South Carolina, Alabama, or Mississippi as of the 1962–1963 school year. Across the South as a whole, a mere 1 percent of black school children were attending school with whites in 1964—a full decade after *Brown* was decided.

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

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

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

Unfortunately, these segregation academies still exist, but instead of excluding children of color the way segregation academies did, they disproportionately target and enroll children of color. While these schools are no longer referred to as segregation academies, they make up a sizable subset of charter schools and often include the word “Academy” in their name. In Santa Clara County, for example, 11 out of 21 charter schools authorized by the county currently include “Academy” in their name (SCCOE, 2021).

Nikole Hannah-Jones, in her keynote speech at the Network for Public Education’s Fourth Annual Conference, said that it has never been the case that a majority of African-Americans have attended majority white schools (*Keynote at the Network for Public Education’s 4th Annual Conference*, 2017). She then added ruefully, that this was quite a feat

considering that African-Americans make up roughly one seventh of the population of the United States. Orfield and Frankenberg note that the percent of African-Americans in majority white schools rose from 0% in 1954 to a peak of 43.5% in 1988 before steadily declining to 23.2% in 2011. (Table 3: Percent of Black Students in Majority White Schools, 1954–2011, Orfield & Frankenberg, 2014, p. 10). Hannah-Jones also commented that American public education doesn't even live up to the Separate but Equal doctrine espoused in *Plessy v Ferguson* and overturned by *Brown v Board of Education*. More recently, Heilig et al. made the same point using 2015–16 Common Core of Data. They say, “Nationally, we find that higher percentages of charter students of every race attend intensely segregated schools.” (Heilig et al., 2019, p. 205). This segregation has an effect on the achievement of the students thus segregated: it makes the “achievement gap” worse.

Racial segregation is strongly associated with racial achievement gaps, and the racial difference in the proportion of students' schoolmates who are poor is the key dimension of segregation driving this association. (Reardon, 2016, p. 47)

2.3 Charter Schools, Free Markets and Privatization

Just a year after *Brown*, Friedman (1955) published his article “The Role of Government in Education” in *Economics and the Public Interest* (Friedman, 1955) that reframed charter schools as an economic problem in education instead as a way of evading court-ordered integration. That paper ensured that charter schools would no longer be morally tainted by their association with virulent racism, but rather would take on the honorable task of breaking up what was called a monopoly. Charters, operating in a free market¹⁶, would allow parents to choose the best alternative from an array of competing choices. Tellingly

¹⁶No 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 or excluding others.

left unspecified was exactly how the free market would ensure that the array of competing choices actually offered valuable educational alternatives rather than mere alternatives.

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

Now, only liberty and freedom matter, in education, as in other fields. It’s school choice or bust; school choice is proffered not only as *the* panacea for all that ails America’s schools, but it is even touted as the morally right thing to do. Without a trace of irony, the former President Donald Trump framed school choice as the “civil rights issue of our time” in a garbled statement at the signing of an executive order on Safe Policing for Safe Communities:

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

(as quoted in Lennox, 2020)

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

B. Baker and Miron identified four major policy concerns with the privatization of public education:

1. A substantial share of public expenditure intended for the delivery of direct educational services to children is being extracted inadvertently or intentionally for personal or business financial gain, creating substantial inefficiencies;
2. Public assets are being unnecessarily transferred to private hands, at public expense, risking the future provision of “public” education;
3. Charter school operators are growing highly endogenous, self-serving private entities built on funds derived from lucrative management fees and rent extraction 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 B. Baker and Miron wrote about them¹⁷.

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, first documented more than fifty years ago by Domhoff and elaborated on in seven subsequent editions. Domhoff argues that corporations and the corporate elite really run the United States, and by extension, the world. Kahn and Minnich (2005) 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

¹⁷Changes 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.

government run functions that are in whole or part privatized. They could have also listed postal mail, space travel, and now every facet of education, as being wholly or partly privatized. Cohen and Mikaelian (2021) lay out in 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). 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 canonical example of privatization is the enclosure of the commons in Britain in the 16th and 17th centuries whereby land that previously had been owned collectively by a village was now owned by an individual who charged villagers for the privilege of using that land (Simon Fairlie, 2009). But modern privatizers have many more ways of turning a profit. They can:

- Obtain tax benefits
- Invest in other firms with public monies
- Invest in financial instruments with public monies
- Obtain a monopoly
- Engage in fraud, corruption, or outright theft
- Engage in self-dealing
- Obtain grants or loans on favorable terms
- Sell what doesn't belong to them
- Avoid paying for externalities
- Pay below market rates for goods or services
- Skew public-private partnerships to create unearned profits
- Engage in pay-for-success contracts

- Offer social impact bonds

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

School choice has been relentlessly marketed and promoted by billionaires who do not send their children to public schools.¹⁸ The Walton family, Eli Broad, Bill Gates, the Koch brothers, the Zuckerbergs, and Laurene Jobs, are all on the list of the 500 richest people in the world. Their collective wealth exceeds half a trillion dollars, and they are busily engaged using that wealth to fix the very problems that their accumulation of wealth caused. Giridharadas (2018) whose book, *Winners Take All: The Elite Charade of Changing the World*, says that it's a "Trying-to-Solve-the-Problem-with-the-Tools-That-Caused-It" issue (Giridharadas, 2018, p. 142).

The effects of billionaire spending on education cannot be over emphasized. Bill Gates made \$2B in grants aimed at creating smaller schools (Gates, 2009, p. 11), despite a lack of evidence that they were educationally valuable. These grants were eventually discontinued when the initiative didn't produce the intended results. Gates was also instrumental in funding and promoting the Common Core State Standards and associated assessments whose premise was that if we only had high enough academic standards, student outcomes would improve, again without evidence that the reforms were educationally valuable and without evidence of a mechanism of improvement.

¹⁸Ravitch (2010) 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*.

2.4 Types of Charter Schools

Charter schools can be broadly classified along three axes. The authorizer/oversight axis has to do with what entity approved their charter and who will exercise oversight. The profit/non-profit axis classifies schools by their intent to generate a profit, or not. Lastly, the in-person/blended/virtual axis characterizes pedagogical approach. Are their classes in-person, virtual, or a blend of the two?

2.4.1 Charter School Authorizers and Oversight

Charter schools in California are potentially subject to a three step process to gain authorization to operate. The first step is to submit a petition to the school district in which the charter wishes to operate. This petition must contain a number of required elements, all of which are specified in Education Code §47605(c)(5)(A–O), the commonly called “15 Required Elements (A–O elements)” (Aguinaldo et al., 2021, p. 89). Besides some technical details, the petition must contain a description of the charter’s annual goals which must align with state priorities, for all pupils and for various subgroups; how these outcomes are to be measured; how the charter is to achieve a racial and ethnic balance similar to its district, its governance structure, and its finances. All of these elements are captured in “*Charter Petition Evaluation Matrix*” by FCMAT, a document intended to provide a legally sound checklist for authorizers (FCMAT, 2022).

If a petition contains all the required elements, then the public school district may approve the petition, possibly with additional stipulations. If the public school district denies the charter school’s petition, it must state why. The charter school may appeal that denial to that County’s Board of Education (CBOE), and if the CBOE denies the charter school’s appeal, under certain circumstances, the charter school may appeal to the State Board of Education (SBE). A denial by the SBE terminates the process, and the charter school is not permitted to open.

Public school districts (LEAs, local education agencies, in the parlance of the

California Department of Education (CDE)) may authorize one several kinds of charter schools. Table 1, *Attributes of Private, Charter, and Public Schools in California* is a summary of the attributes of the types of schools in California. A public school district may sponsor a charter school directly, in which case the district exercises oversight. These dependent charter schools are authorized by the local public school board and are subject to the board's jurisdiction. It also is possible for all the schools in a district to convert to charter schools, and then the public school board becomes the charter school board. Lastly, charter schools may be authorized by a public school district or a county office of education with a governing board that is distinct and independent from the authorizer's governing board.

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

Attribute	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	not capped
Unionized	rarely	rarely	often
Curriculum	completely flexible	very flexible	flexible
Standardized Testing	no	yes	yes
Accountable	no	authorizer	elected board
Teacher Certification	no requirement	yes	yes
Teacher Pension	perhaps	perhaps	yes

2.4.2 Profit-Making Status

Until the 2019–20 school year, charter schools in California could be run directly or indirectly by a profit-making organization. California now prohibits profit-making organizations, either a single school or a charter management organization, from

submitting an initial charter school petition or a renewal.

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

However, charter school board members in California have recently become subject to the conflict-of-interest laws specified in Government Code §§1090–1099 and §§87100–87314 (Becerra & Medeiros, 2018). Generally, government officials are prohibited from benefiting financially from their positions as public servants, but it remains to be seen if these conflict-of-interest laws will prevent profiteering by school board members, administrators, or relatives of either.¹⁹

2.4.3 Types of Instruction

Charter schools, unlike almost all public schools, vary in their instructional format. In-person instruction is similar to that in traditional public schools, with one exception: the so-called “no excuses” charter schools (J. Horn, 2016; Torres & Golann, 2018; Golann, 2021). These schools emphasize a highly scripted, rigid code of conduct that relies on fear, intimidation, and Skinnerian behavior modification as foundational elements of their pedagogy. Unlike schools which offer in-person instruction, virtual charter schools have

¹⁹The law is necessarily complex. Two useful guides (total: 300 pages) are Chaney et al. (2010) and Kevin Ennis et al. (2016). A more general guide to local government ethics is “Understanding the Basics of Public Service Ethics” from California’s Institute for Local Government (Institute for Local Government, 2016).

no face-to-face instruction; everything is mediated by some sort of technology, typically, computers running specialized software, paid for by taxpayers. In between in-person instruction and virtual instruction is blended learning. It is simply a mixture of in-person and virtual instruction (M. B. Horn & Staker, 2015).

Since 2013, virtual charter schools have been studied extensively by Alex Molnar, Gary Miron and others and at the National Education Policy Center, University of Colorado, Boulder (*Virtual Schools in the U.S.* 2013, 2013; *Virtual Schools in the U.S.* 2014, 2014; *Virtual Schools in the U.S.* 2015, 2015; Miron & Gulosino, 2016; *Virtual Schools in the U.S.* 2017, 2017; *Full-Time Virtual and Blended Schools: Enrollment, Student Characteristics, and Performance*, 2018; *Virtual Schools in the U.S.* 2019, 2019; *Virtual Schools in the U.S.* 2021, 2021). Their annual reports are depressingly consistent: virtual schools not run by a public school district significantly underperform public schools. Their conclusions are echoed by Woodworth et al. (2015) and Garcia (2018). Yet, despite being clearly academically inferior to public schools, the number of students attending virtual schools has risen year after year. Their pre-pandemic growth seems to be slowing, but their performance, compared to public schools, has not measurably improved.²⁰ (*Virtual Schools in the U.S.* 2019, 2019, p. 11).

Pre-pandemic, charter schools in California were legally deemed classroom-based (e.g. not virtual) if students spent no more than 20% of their time in front of a computer.²¹ Blended charter schools, on the other hand, offer some sort of face-to-face interaction with a teacher along with online activity without face-to-face interaction. But they too offer only marginally better educational outcomes than fully virtual charter

²⁰Although *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.

²¹The California Education Code §47612.5(e)(1) doesn't mention computers, but bases its definition of classroom-based on students being physically at the schoolsite with a certificated teacher in charge. Under that definition, a 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.

schools (*Virtual Schools in the U.S.* 2019, 2019). Rocketship schools use a blended instructional model.

2.5 Charter Schools in the United States

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

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

The first charter schools, other than segregation academies, were founded in Milwaukee, Wisconsin in 1991, followed by California starting in 1993. Conceptually, charter schools were based on an amalgam of ideas from Milton Friedman, Albert Shanker, and Ray Budde. Milton Friedman came at it from an ideological point of view couched in economic terms. Albert Shanker, in 1988, in a speech at the National Press Club, proposed that *teachers* in conjunction with *parents* be allowed to form a school *within* a school district. Shanker made no mention of competition, or free markets, or even of charter schools. Shanker's speech emphasized curriculum and learning, not governance or finance. Ray Budde first thought of charter schools in the early 1970s, but his proposal generated no interest and it was not until 1988 that he published his ideas (Budde, 1988).

2.5.1 Charter Schools in California

Charter schools, in California as elsewhere in the United States, enter into a contract (the charter) with a chartering authority that specifies what they are to do and how, and in return, are exempt from the entirety of California's Education Code (with the exception of five technical provisions). The California Legislature, when it enacted the *The Charter School Act of 1992*²² (Ed. Code §47600), spelled out its intent in passing that legislation. The Act has been amended a number of times in its nearly 30 years of existence, but its intent has remained the same. It specifies that charter schools should

- a) Improve pupil learning.
- b) Increase learning opportunities for all pupils, with special emphasis on expanded learning experiences for pupils who are identified as academically low achieving.
- c) Create new professional opportunities for teachers, including the opportunity to be responsible for the learning program at the school site.
- d) Provide parents and pupils with expanded choices in the types of educational opportunities that are available within the public school system.
- e) Hold the schools established under this part accountable for meeting measurable pupil outcomes, and provide the schools with a method to change from rule-based to performance-based accountability systems.
- f) Provide vigorous competition within the public school system to stimulate continual improvements in all public schools.²³

It is important to keep these goals in mind because charter schools have contractually agreed to meet these goals in return for funding, independently of whatever other goals

²²Current California law can be accessed at <https://leginfo.legislature.ca.gov/faces/home.xhtml>. California Regulations are at <https://ccr.oal.ca.gov>. California's Education Code (Ed.Code) is at <https://leginfo.legislature.ca.gov/faces/codesTOCSelected.xhtml?tocCode=EDC&tocTitle=+Education+Code+++EDC>

²³This goal was added in 1998.

they explicitly specified in their initial petition. Note, in particular, that the Legislature said nothing about profitability, and in fact, California enacted in 2018 a prohibition against for-profit charter schools (Ed. Code §47604 et seq.).

2.6 Surveys of Charter School Research

It's been about 30 years since the first charter school law was passed. In the last decade, researchers have published several surveys of the research on charter schools. The first two decades (1990–2010) were somewhat experimental and different enough that the research that came out of that period is less relevant than more recent research. The first survey of the last decade, is “Beyond ideological warfare: the maturation of research on charter schools.” In it, Smith et al. (2011) reviewed systematically charter school research as it existed in 2011. The authors were interested, not so much in the conclusions of the studies they looked at, but how the research was performed, how it was structured, what facets of charter schools were examined, and what was the subject of the research in order to “separate empirical evidence from politicized conjecture” (p. 460). They reviewed a total of 323 peer-reviewed articles and research center reports and found that student and school outcomes were the most commonly studied topics. They noted many studies were unable to generalize their findings because variations in policy between states and localities. Smith et al. also noted that there was a lack of longitudinal studies which is not surprising due to policy variations. Furthermore, they found that “acceptance into a peer reviewed journal does not always ensure that qualitative research adheres to the standards of providing substantiation that findings are credible and trustworthy or that quantitative research provides evidence of the studies’ validity, reliability and generalizability.” (p.466) Finally, the authors noted that many studies could not draw causal connections. They concluded that more research is needed.

Four years later, Berends (2015) chose as his focus the various theories that

researchers used when looking at the social organization of charter schools. In “Sociology and School Choice,” Berends (2015), found, like Smith et al., that most studies concentrated on student achievement and neglected educational attainment such as high school graduation, college admission, and the granting of a degree. He notes that “the effects of charter schools on student achievement are mixed (some positive, some negative and some neutral)” (p. 170) Berends thinks the context in which charter schools operate is important in order to understand the magnitude of any effects and to understand what we can expect from school reform. He identifies longer school days, a focus on achievement, behavioral policies, teacher coaching and feedback, and data-based decision-making as characteristics most often associated with effective charter schools. Lastly he looks at innovation and distinguishes between curriculum and class-room based changes, and organizational changes, and he found that charter schools mostly innovate on the structural side rather than the academic side. He concluded that more research is needed.

Next, Epple et al. (2016), in *Charter schools*, did much the same as Berends, but concentrated on the technical aspects of study design (Epple et al., 2016). The authors observed that which the research question being answered by a particular study was often much narrower or significantly different than the research question authors set out to answer or thought they were answering. The heart of their review is an analysis of “the methodological challenges in evaluating charter effectiveness” (p.141), and the strength and weaknesses of the various approaches that have been used. They find that researchers used one of five statistical methods: lottery-based design, fixed-effect approaches, matching procedures, ordinary least squares (OLS) regression, and instrumental variable approaches (p. 165), and they evaluate each approach. Epple et al. also discuss the much scrutinized virtual control record method of matching charter school students to public school students that came out of Stanford’s Center for Research

on Education Outcomes (CREDO) which was criticized on purely statistical grounds in Andrea Gabor (2015). Epple et al. concluded that more research is needed.

In 2015 and then updated in 2018, Public Agenda released a guide to charter school research for non-academics, a review of current charter school research that was written in a way that is accessible to the public. The chapter on finance focused on four questions: how charter schools are funded, how charter schools and traditional schools compare in per pupil funding, what financial effects do charter schools impose on traditional public schools, and what are, if any, differential spending patterns between traditional public and charter schools (Public Agenda, 2018, pp. 78–89).

The finance chapter revealed that the 48 states with school choice programs had 48 different methods of funding public schools and charter schools. This variation in funding models made comparisons difficult. In addition, each state has likely gone through several iterations of models of charter school funding, and this lack of commonality prevents researchers from conducting valid longitudinal studies. The authors answered their first question on funding by referring to a compilation of state funding amounts.

Their answer to the second question was yes, different levels of funding do exist, and in a few cases, by as much as 40% to nearly 60% less. Their take on whether it matters was hedged because studies differ in their conclusions for a variety of reasons. Likely not published in time to be reviewed by Public Agenda, was B. D. Baker (2018) which emphatically says that money does matter. They answer their third question with an unambiguous yes, charter schools do affect the finances of public schools. More recent research, Lafer (2018), B. D. Baker (2019), and Miron et al. (2021) validates their conclusion. Finally, they conclude that charter schools do spend their revenues differently, in part because charters spend more on administration than public schools do and sometimes more on facilities.

The last of the four academic surveys, Zimmer et al. (2019), considers who was served, racial segregation effects, both academic and non-academic outcomes, management structure, and financial effects of charter schools. Since Zimmer is a co-author of both this survey and of the previously cited Epple et al. (2016), the kinds of study designs analyzed are similar. Zimmer et al. intend to synthesize “the best research to inform the debate [about the value of charter schools]” (p. 2). They go beyond the 2016 study and survey studies on racial segregation, selective enrollment, and student pushout. Zimmer et al. conclude that charter schools lead to greater segregation for African Americans, but not necessarily for whites or Latino students. They find that charter schools do engage in sometimes subtle forms of selective enrollment and student pushout. Independently, and two years later, Mommandi and Welner document thirteen major ways that charter schools effectively choose who they enroll (Mommandi & Welner, 2021). After summarizing three different kinds of research (fixed effects, lottery-based, and match and other regression), they turn their attention to research on non-cognitive outcomes. Their penultimate chapter looks at research on indirect effects.

Although Garcia (2018) is not explicitly a survey of the existing literature, it contains in Chapter 3 much material on the research evidence which guides (or should guide) school choice policies. His goal is to present general trends that “reflect the weight of the evidence” (p. 93). The weight of the evidence, Garcia finds the research points to the conclusions that “school choice policies are more likely to separate, rather than integrate, students from different racial/ethnic and socioeconomic backgrounds” (pp. 159–60), “how countries and states structure school choice policies can have a profound impact on how school choice functions at a practical level” (p. 160), “low-income students face obstacles to participating in school choice plans” (p. 161), lastly, “one should expect student achievement gains under school choice plans to be modest at best and inconsistent across subjects and years” (p. 161), and “a major reason for the inability of

school choice to have an impact on the academic core of schools—teaching and learning—is that school choice came of age at the same time as high-stakes accountability policies that encourage standardization” (p. 162)

Garcia makes a point that hasn’t been made before: Since both public schools and charter schools are measured the same way (standardized tests), “the incentives to implement innovative pedagogical strategies are curtailed because the methods by which students are able to demonstrate their learning are uniform across all schools and restricted to the format of the tests.” (p. 163) He predicts that school choice in its many forms will continue to expand.

2.6.1 Research on Charter School Finances

Charter schools have been much studied, and the last decade has produced a number of reports examining charter school finances based on carefully collected evidence. For example, in 2014, Lafer (2014), now at In the Public Interest, published an analysis of a proposed law in Milwaukee, WI (Lafer, 2014) that was specifically tailored to benefit a to-be-opened Rocketship school. Lafer went on to author two other studies on charter schools, public policy, and finance: *Spending blind: the failure of policy planning in California charter school funding* (Lafer, 2017b) and *Breaking point: The cost of charter schools for public school districts* (Lafer, 2018). Carol Burris, Executive Director of the Network for Public Education, and several co-authors have produced three reports on money and charter schools: Burris and Pfleger (2020), Burris and Bryant (2020), and Burris and Cimarusti (2021). The National Education Policy Center, a research center based at the University of Colorado, Boulder, with over 150 scholars and academics from institutions across the U.S. whose goal is “to produce and disseminate high-quality, peer-reviewed research to inform education policy discussions” (“National Education Policy Center,” n.d.), has produced hundreds of reviews of research, policy and legislative briefs, some of which are annual surveys of charter schools. The series on profiles of EMOs have been produced

annually for fifteen years; the series on virtual charter schools, for ten years.

Bruce Baker's contributions to the NEPC are especially noteworthy. He is an author or co-author of 28 reviews of reports, studies, or articles on school finance, in addition to six policy, legislative, or research briefs. Baker co-wrote with Gary Miron *The business of charter schooling: Understanding the policies that charter operators use for financial benefit*. (B. Baker & Miron, 2015) which introduces many of the tools and techniques for evaluating how charter schools operate for profit. It will serve as a key resource for this dissertation.

Lafer (2017b)'s report, *Spending blind: the failure of policy planning in California charter school funding* is particularly scathing. He says, "Any time there is a low bar of entry for firms seeking to access government funds, one can expect to find corruption, and the charter industry is no exception." (p.18) But even absent corruption, there is ample opportunity to make lots of money. Lafer documents \$2.5B of Californian taxpayer money spent over fifteen years on charter school facilities, in many cases where there is no documented educational need and where the charter school is of lower quality than nearby public schools. Lafer says, "It's as if legislators turned on a faucet of money and then just walked away." (p.12) It is saddening that in the four years since Lafer's report came out, nothing has fundamentally changed.

2.7 Rocketship

Rocketship is well-known in the charter school world. It even has been the subject of a "biography", *On the rocketship* (Whitmire, 2014).²⁴ Rocketship's leaders and supporters routinely describe it as "high performing", "deserving of huge credit", "dynamic", and "nationally lauded". Rocketship schools, it is claimed, outperform some of the best public

²⁴Just two other charter schools share this distinction: Geoffrey Canada's Harlem Children's Zone (Tough, 2009) and the KIPP schools (Mathews, 2009; J. Horn, 2016)

schools in the country. Rocketship “believe[s] that every student deserves the right to dream, to discover, and to develop their own unique talent”.²⁵

Rocketship is one of the largest non-profit charter school chains in the United States. They operate 21 schools in the United States; thirteen in California, three in each in Nashville, TN and Washington, D.C., and two in Milwaukee, WI. In Santa Clara County, CA, they have eight TK-5 elementary schools authorized by the county that served 4,254 students in the 2019–20 school year plus 1,240 students in two district authorized schools, for a total of 5,494 students.

2.7.1 *Founders and Supporters*

Rocketship was founded by John Danner in February 2006. Danner, Don Shalvey, Jennifer Andaluz, and Eric Resnick are listed as the initial members of Rocketship Education’s board of directors. Danner had significant teaching experience (Nashville, TN public schools) prior to Rocketship, as did Shalvey (Aspire Public Schools) and Andaluz (Downtown College Prep). Resnick, the fourth member of the founding group was a hedge fund manager who had a “a deep understanding of financial management and real estate transactions” (Danner, 2006, p. 13). The inclusion of Resnick, an expert in real estate transactions, at the very beginning of Rocketship, is interesting because one of the preferred ways for charter school investors and founders to generate profits is via real estate deals. John Danner eventually left Rocketship in 2013 to found Zeal, an online math tutoring tool, and was replaced by Preston Smith who became CEO. Smith became the first principal of the Rocketship’s first school, Mateo Sheedy, and was subsequently listed as a Rocketship co-founder in the charter petition for Rocketship’s second school.

Matt Hammer, Executive Director of PACT (People Acting in Community Together), brought Danner and Smith together, and has relentlessly promoted charter schools

²⁵Rocketship, like many charter school advocates and privatizers, excel at choosing memorable, compelling names and tag lines that are impossible to argue against but which nonetheless misrepresent—deliberately so—their goals.

through his advocacy non-profit, Innovate Public Schools.²⁶ Hastings proselytized Rocketship to the larger charter school community and when he promised Rocketship \$250K for each of the first eight Rocketship schools they opened, his donation caught the attention of philanthropic venture funds (Whitmire, 2014, p. 50).

2.7.2 Rocketship History

The first Rocketship school, Mateo Sheedy, opened in Santa Clara County in 2007. Rocketship's initial petition to the San José Unified School District was denied, so they appealed to the Santa Clara County Board of Education, which granted their petition. Over the years, Rocketship opened ten schools in Santa Clara County. Of those ten, only two were authorized by a public school district. The remainder were either countywide charters or charter schools whose petitions were denied by the local public school district, but subsequently approved by the Santa Clara County Board of Education.

Table 2, *Rocketship Schools in Santa Clara County, California* lists the eleven Rocketship schools that were approved and the ten that opened. Note that only two were approved by the school district in which there were expected to locate. This lopsided result suggests that current charter school laws are tilted in favor of charter schools.

2.8 Rocketship Finances

Charter schools have a number of unique financial needs. They need startup funds, operating funds, and often funds to expand, funds that public schools do without. Rocketship is no exception. The *operation* of charter schools are funded by federal, state, and local governments, but funding *expansion* may or may not be funded with tax dollars, depending on the laws of a particular state. The difference between what's funded at taxpayer expense and what's not must somehow be funded with outside money. Startup money is needed for facilities, desks and chairs, teacher and administrator salaries, legal

²⁶<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 Se 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

fees, curriculum materials, etc., all of this before even one student registers. Startup facilities cost vary widely. If the charter school chooses to use public school district facilities under Proposition 39²⁷, their need for funds will be lower than if they choose to lease or build their own facilities. Startup facilities costs might involve the purchase of land and the construction of school buildings, or might just involve lease payments. But since state funding is tied to attendance, some startup funding is necessary. Thus the federal government provides grants, administered by the states, for this purpose.

Rocketship has indicated from the beginning its intent to expand. In 2009, Rocketship announced plans to open six new schools (Cook, 2009). It submitted a

²⁷Proposition 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). Regulations governing Prop. 39 facilities are in California Code of Regulations, Title 5, §11969.

petition to Santa Clara County to open countywide charters and within three years had actually opened four. Like many other CMOs and EMOs, Rocketship must expand in order to increase revenue enough to be worth the while of investors. A single school's profit is not enough to satisfy investors, but by using economies of scale, a "portfolio" of charter schools might suffice. A portfolio of charter schools is a collection of schools – almost always charter schools – managed as a whole.

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

...a loosely coupled conglomeration of ideas held together by the metaphor of a well-managed stock portfolio and its proponents' *unshakable belief* that the first step for successful reform must be to dismantle the bureaucratic and political institutions that have built up around the status quo. [emphasis added]

(J. R. Henig et al., 2010)

Hill et al. acknowledge, in dry, understated language, that overcoming the objections and criticisms of educators and scholars to their unshakable belief will be difficult: "It is hard to imagine that a portfolio strategy could be introduced into a major city without significant conflict." (p.2) Portfolio strategy is most often associated with Paul Hill and The Center for Reinventing Public Education, which is now located at the Mary Lou Fulton Teachers College at Arizona State University.

2.8.1 Rocketship Expansion Funding

California, startup charter school funding has waxed and waned, in part because federal funding has varied. Currently, the U.S. Department of Education provides startup

funds to states under the Charter Schools Program State Educational Agency (SEA) grant program²⁸. The federal charter school funding programs are listed in National Charter School Resource Center (2020). *The federal charter schools program: 2020 annual report* notes that

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

(National Alliance for Public Charter Schools, 2020)

Funds like the NewSchools Venture Fund²⁹ and the Charter School Growth Fund I & II³⁰ exist to fund the development and expansion of charter schools and charter management organizations. In 2007, when Rocketship Mateo Sheedy was started, Rocketship used lines of credit and loans to fund its beginning (Danner, 2006, p. 260). Now, charter schools have many more options for funding startup or operations.

Charters have at least three other sources of facilities funding: bonds, tax credits and foundation or individual contributions. Betsy DeVos, who served as Secretary of Education for Donald Trump, has donated \$12.6M to Rocketship. Reed Hastings, a founder and now CEO Netflix has donated more than \$2M. In addition, charter schools can avail themselves of the New Market Tax Credit if they meet certain investment criteria, and if they do, they can get back 39% of their investment in tax credits in seven years. If their investment returns, say, 20%, then combined, they are looking at nearly a 60% return on their investment. A sixty percent return is fantastic. Charter schools and charter school operators can also issue revenue bonds. Revenue bonds are guaranteed by

²⁸<https://www2.ed.gov/about/offices/list/oiicsp/funding.html>

²⁹<https://www.newschools.org/>

³⁰<https://chartergrowthfund.org/>

a revenue stream instead of by property tax revenues the way general obligation bonds are. Note that both are tax-exempt. As of 2015, charter schools issued over \$11B in revenue bonds according to Clark-Herrera et al. (2019).

2.8.2 Rocketship Expansion Difficulties

In 2014, the Santa Clara County Office of Education and Rocketship were sued by four Santa Clara County public school districts: Alum Rock, Mount Pleasant, Franklin-McKinley and Evergreen. At issue was the SCOE's bulk authorization of twenty countywide Rocketship charter schools. Sixteen months, 17,500 pages of evidence, and an estimated \$435,000 later, Rocketship, the public school districts, and Santa Clara County settled (Noguchi, 2015). As part of the settlement, Rocketship agreed to withdraw 13 of the 20 countywide charters thus far authorized. Since one of the remaining countywide charter had already been withdrawn, that left six potential charters still authorized but as of yet, unopened. So far, it appears that Rocketship has instead attempted to expand in locations beyond Santa Clara County: San Pablo³¹ and Concord in California, Nashville in Tennessee, Milwaukee in Wisconsin, Washington, D.C. and Fort Worth in Texas.

2.8.3 Charter School Accountability

In California, all K–12 schools, including privately managed charter schools like Rocketship, must submit annual budgets, Comprehensive Annual Financial Reports (CAFR), and since 2014, Local Control and Accountability Plans (LCAP). LCAPs are three year plans updated in years two and three and which in detail how a school will use its funds to address state priorities, and to improve educational outcomes for foster youth, English learners, and low-income students, along with the metrics which will be used to show progress (Aguinaldo et al., 2021, pp. 66–84). These characteristics make LCAPs particularly interesting from both a financial point of view and from an educational point of view.

³¹unsuccessfully

2.9 Rocketship and Privatization

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

... particularly with the added case of Rocketship, a blended learning chain of charter schools, is that the NSVF [NewSchools Venture Fund] is using its clout to further blur the lines between for-profit and non-profit educational projects and organizations, thus smoothing the groves [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 forms 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 actor and new ideas and sensibilities.”

(Ball, 2012, p. 32)

Privatizers use investment banks, hedge funds, and private equity firms as vehicles 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.

2.9.1 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 or hospitals at a lower cost. Since charter schools have positioned

themselves as being in competition with traditional public schools, they need to do at least as well as traditional public schools, 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.³² Evidently even creative marketing is not enough to prod the free market to supply the educational choice that charter school advocates feel is necessary, so pro-choice advocacy organizations also lobby state representatives and fund pro-charter board candidates.

Charter school marketing is extensive. Organizations like The 74 Million, a reference to the 74 million children in America, or Innovate Public Schools, an advocacy organization, produce reports, news items, briefs and what claims to be research that is slanted toward charter schools and away from public schools, teachers, unions, school boards, and anything and anyone who doesn't buy into the notion that American education is in desperate need of reform. One technique that is used is to fund media outlets to write allegedly unbiased and non-partisan articles and blog postings that promote "successes" while dismissing any harm that charter schools might cause.

These influence techniques are reminiscent of how OxyContin was marketed by the Sackler family, which is not surprising since Jonathan Sackler, now deceased, founded or funded charter advocacy groups like 50CAN, ConnCAN, Families for Excellent Schools, the Northeast Charter School Network, Education Reform Now, Partnership for Educational Justice, and The 74 Million. Dubb (2017) describes the similarities in marketing strategies used to sell oxycontin and those used to promote charter schools,

³²The 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.

where the focus of all communications was to highlight benefits while ignoring or erasing harms. While this is the standard playbook of corporate marketing, we now have public education dollars being spent on such tactics. When a national exposé published by National Public Radio (NPR) documented serious concerns about Rocketship's practices, The 74 Million immediately published an *ad hominem* attack on NPR, accusing the report to have been a "hit piece" on the charter network. The response of The 74 Million addressed some of the issues raised by NPR while leaving unanswered some of the most serious concerns.

Unlike many other forms of privatization, charter schools have competition. When a local government turns over the task of supplying water to a town, for example, there is not another public water company serving the same customers to serve as a comparison. Privatization is often an all-or-nothing proposition. Charter schools, on the other hand, can be and are often compared to the public schools in the same school district. The presence of very visible competition has an interesting consequence: charter schools view public schools as an existential threat, precisely the opposite of the cooperative, synergistic relationship that state legislators envisioned. In fact, the absence of reports on the successful sharing of innovations appear so infrequently that sharing might as well be completely absent.

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

Charter schools employ fewer and less experienced teachers than public schools do. A

teacher with 10 or 20 years of experience can easily command a salary that is twice that of a newly minted teacher. Rocketship schools have a student-to-teacher ratio that's officially as high as 36:1 (SCCOE, 2021), and if aides are counted as teachers, it is an estimate which understates the number of students per teacher. The combination of fewer and less expensive teachers can reduce the cost of teacher salaries to one-third of what public schools pay for teachers. This reduction is significant because teacher salaries typically account for from one-third to three-quarters of the total expense of running a school. Charter schools that employ a blended pedagogy can further reduce the cost of salaries, with virtual schools dispensing entirely with teachers, effectively reducing the single largest component of running a school to zero.

2.9.1.1 Philanthrocapitalism

Philanthrocapitalism is the term used to describe the approach to philanthropy that prioritizes operating non-profits as businesses, i.e. making money while "doing good". The epigraph to Giridharadas's book *Winners Take All* is a quote taken from Leo Tolstoy's *Writings on Civil Disobedience and Nonviolence* which captures the absurdity of making money while "doing good":

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

For philanthrocapitalists, the techniques and vehicles used to extract a profit from public education are impressive. Saltman (2018) lists the following in *The swindle of innovative educational finance* (pp.xii–xiii):

- social impact bonds,
- higher education lending and student income loans,
- charter school real estate, tax credit, and municipal schemes, and
- philanthrocapitalist educational technology schemes.

R. Marachi and Carpenter (2020), Burris and Cimarusti (2021), Scott (2009), B. Baker and Miron (2015) all make the same point: education has been captured by big business, where profits are hidden, and where the profits are substantial.

Research Design and Methodology

This dissertation is an *exploratory, case study* using a *public policy* lens to examine the *finances* of Rocketship Education. 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. Case studies are in-depth examinations of a single topic that are limited in space or time. Public policy is the set of laws, regulations, rules, and guidelines that affect the actions of an element of society. It is "the decisions, measures, programs, strategies and courses of action adopted by the government or the legislative body" (Knill & Tosun, 2020, p. 3). Public policy mandates, constrains, and abets Rocketship Education's actions and how it structures its finances to meet its goals.

Finance, as it pertains to Rocketship Education, encompasses all transactions of monetary value which involve the legal entities called Rocketship Education (DBA Rocketship Public Schools) and Lauchpad Development, plus other entities with which it has significant financial relationships. An expansive view of Rocketship's finances might also include those of its founders who, perhaps went on to found companies that sold software to Rocketship, and entities focused on real property from whom Rocketship might have bought, leased, or sold real property. The expansive view is beyond the scope of this dissertation.

This chapter contains six sections. The first, Section 3.1, *Process Overview*, describes at a very high level three steps of inquiry this dissertation will follow. Since understanding how schools are financed is essential to understanding Rocketship's finances, a pair of sections, Section 3.2, *Financing Schools in California* and Section 3.3, *Charter School Financing*, will give an overview of school financing in California by describing the normal, common financial disclosures and reports made by all districts and schools and

then the essentials of charter school finance.

The fourth section, Section 3.4, *Charter Schools and Real Estate*, covers the varieties of real estate transactions that charter schools might be involved in. The fifth section, Section 3.6, *Gaps and Anomalies*, discusses how potential gaps or anomalies in the financial data might be discovered.

In order to make what's being analyzed more concrete, Appendix A, *School Financing in California*, contains some example tables drawn from the Los Altos School District (LASD) for the 2019–20 school year. These are standard financial reports taken from LASD's SACS data, but presented in a way that is both visually appealing and informative.³³ The high level view is given in Figure 4, *LASD 2019–20 All Funds Summary*. That view is further broken down in five more tables. The final and sixth table is a projection of LASD's finances for the current year (2018–19), the year whose budget is being presented (2019–20), and five years into the future. The first half of the table contains the assumptions used to generate the amounts in the second half.

3.1 Process Overview

Explaining the real estate-related finances of Rocketship Education is the heart of this dissertation. Where do Rocketship's revenues come from? Where are they spending that revenue? Are there investors who make money off of Rocketship? And, critically, if Rocketship takes in more money than it spends on education, where does that money go?

To respond to these questions, the basic process steps for this dissertation will include the following:

1. Gather financial data for the Rocketship schools being studied. The initial set of

³³LASD's annual budgets have consistently won the Meritorious Budget Award for Excellence from the Association of School Business Officials International for the quality and comprehensiveness of its financial statements for each of the last 15 years. Both LASD's annual budget and its CAFR exceed 100 pages. That information and data, although available elsewhere, is truly informative and serves as a record, a history if you will, of LASD's past, its actions, and the data which guided those actions.

data being analyzed is discussed in Section 3.3, *Charter School Financing* later in this chapter.

2. Identify any gaps or anomalies in the data. This is where triangulation is useful and is discussed further in the Section 3.6.1, *Triangulation*.
3. Analyze the flow of money in and out of Rocketship which will try to determine where Rocketship funds come from, where is that money being spent, and what public policies (or lack thereof) account for Rocketship's actions.

Analyzing the finances of Rocketship Education means, for example, determining the attributes of a particular bond. Are these bonds general obligation or revenue bonds? Are they obligations of Rocketship Education or Launchpad Development and funded their revenues, or are they conduit bonds issued by a government agency and obligations of that government agency that are intended, by not guaranteed, to be funded by Rocketship's revenues? Have the bonds been purchased by entities that are related to Rocketship, i.e. they are not arm's length transactions?

3.2 Financing Schools in California

In California, primary and secondary schools (grades TK–12), community colleges (grades 13-14), and charter schools (TK-12) are financed with a combination of federal, state, and local funds as seen in Figure 1, *California 2019–20 K-12 Funding by Source*.³⁴ From the point of view of the current fiscal year, say in early June, there are three budgets: The prior year's budget, the current year's budget, and next year's budget.

In June of every year, the California Legislature passes a budget for the next fiscal year which runs from (July 1st – June 30th). The Governor signs this budget into law and it is then called the enacted budget. This version of the budget describes the *intent* of the

³⁴ Since federal funds account for only 8% of total funding for California's elementary school children (Legislative Analyst's Office, 2021), the federal contribution will not be considered further. Note that federal facilities grants to charter schools are not part of this 8%.

Governor and the Legislature, but might not provide any actual money. Often funds for programs authorized by the enacted budget are appropriated in *trailer bills* that are passed piecemeal in the months following the adoption of the budget. Starting July 1st, the enacted budget becomes the current budget. During the course of the fiscal year, revisions are made to the current budget, either because circumstances or priorities have changed. At the end of the fiscal year, this current and possibly modified budget becomes the revised budget, and during the following year, technical adjustments can be made. Exactly how much money was spent, or what was misclassified and improperly allocated will change the revised budget numbers. This modified and corrected budget becomes the final budget. The upshot of this is that there are actually multiple versions of California's budget and one should be precise when one refers to "the budget". Usually, one means the current budget, except during "budget season" which starts when the Governor releases a budget proposal in January, continues through May when the Governor revises that proposal, and ends in June when it is enacted into law. Once the Governor and the Legislature have negotiated their differences, and a budget has been passed by the Legislature and signed by the Governor, it becomes the enacted budget. Starting Julyst the enacted budget becomes the current budget.

Figure 1, *California 2019–20 K–12 Funding by Source* shows what money California uses to fund its primary and secondary educational system, i.e. grades K–12. This money is then allocated to local educational agencies (LEAs), through a formula known as the Local Control Funding Formula (LCFF).³⁵ LEAs include individual charter schools, county offices of education, and local public school districts. The total amount of money for K–12 funding is allocated using a formula that was enacted by voters in 1988 (LAO, 2017): Proposition 98. Prop. 98 was originally meant to be a minimum guaranteed funding

³⁵The LCFF actually funds transitional kindergarten and community colleges as well as public primary and secondary educational institutions, so it ought to be known as funding grades TK-14. Approximately 89% of LCFF funding goes to grades TK-12.

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

K-12 Funding by Source

(*Dollars in Millions*)

	2017-18 Final	2018-19 Revised	2019-20 Enacted	Change From 2018-19	
				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.

Legislative Analyst's Office (2021).

level, but has evolved into a ceiling. The Legislative Analyst's Office (LAO), which serves as an independent, non-partisan research arm of the California Legislature in much the same way that the Congressional Research Service serves the U.S. Congress, calls Prop. 98 "A Tale of Complexity" (p.5) and says that "A Plethora Tests and Rules Govern the Minimum Guarantee" (p.5), and that "State Has Made Myriad Adjustments to the Proposition 98 Calculations" (p.5). Undoubtedly LCFF is complex, but LCFF is more transparent, has fewer rules, is more equitable, and is more responsive to the needs of public school districts that have a high proportion of under-served students than the Revenue Limit System that came before it. The Revenue Limit System was also complex, but in a completely difference way; it had many separately funded programs, called categorical programs, each with their own set of requirements, rules, durations, and funding levels. Each passing year saw more programs being added to the set of categorical programs until the entire collection became both unwieldy and inequitable.

As seen in Figure 1, *California 2019–20 K–12 Funding by Source*, Proposition 98 funding accounts for nearly 70% of California's K–12 funding, with the remainder coming from local property taxes and fees, and from various other federal and state sources. This money is distributed to county offices of education which then distribute it to public school districts. Districts then distribute funds to charter schools.

Some districts are funded outside of the LCFF system. These used to be called "basic aid" districts, but since the term is confusing, they are now called "community funded". These are districts where the proportion of annual property tax revenue is greater than their annual LCFF entitlement. They get only "basic aid", i.e. the constitutionally required minimum funding (the greater of \$120 per pupil or \$2,400 per district) from the state. For districts which are not community funded, the state contribution is the difference between a district's LCFF entitlement and its share of district property taxes. In other words, the state ensures that each district gets at least its LCFF entitlement, the total

amount which is determined by Prop. 98.³⁶

3.2.1 Budgets & Interim Reports

For a given fiscal year, the annual budget is the first of four important financial documents produced. Since budgets must be approved before the start of a fiscal year, budgets are actually produced and approved in the prior fiscal year.³⁷ The next two financial documents 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) is produced in the fiscal year following the period it covers. 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.

3.2.2 Local Control Accountability Plans (LCAPs)

An important, recurring, non-financial report of schools is the Local Control Accountability Plan (LCAP). Although the LCAP is a three year plan, it is updated annually. The focus of an LCAP is on the programs that a school (public or charter) is going to implement, finance, and monitor that will allow it meet the goals that the state has set. These are goals that the California Department of Education sets periodically, primarily to ensure that students with the greatest needs are in fact served and are in addition to the seven goals that the Legislature set for charter schools in general.

Typically LCAP goals remain the same over their three year lifespan, but their financing may change if the metrics used to measure progress toward achieving those goals aren't showing progress. In unusual circumstances, how the goals are to be

³⁶An invaluable and comprehensive description of K-12 funding in California, for both public school districts and charter schools, can be found in Aguinaldo et al. (2022), an annual publication.

³⁷Since a school's budget must be approved before the state budget is finalized, it is nearly certain that a school's budget will need to be modified after it has been approved.

achieved might change. LCAPs are California's way of ensuring that all public schools, including charter schools, meet the same set of priorities or goals. Apparently, some LCAPs have been on the order of 500 pages long, although the norm is much less.

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

Unlike budgets and CAFRs, LCAPs don't have to "add up", nor do they have to offer a complete financial picture, but they do have to be consistent with other financial data. Expenditures have to be budgeted, and the amounts in a school's budget must agree with what's in the LCAP. The charter or public school's board must approve an LCAP at the same time as it approves its annual budget.

3.2.3 Comprehensive Annual Financial Reports

The final major source of financial data from charter schools is an annual, independently audited, financial statement called the Comprehensive Annual Financial Reports (CAFRs). These are sent to the California Department of Education (CDE) and to a charter's County Office of Education (COE) annually. They cover the previous fiscal year and are similar to annual budgets because they report the same information, perhaps in a different format. CAFRs are retrospective whereas budgets are prospective. The major difference between budget and CAFRs is that CAFRs are independently audited and budgets are not.

Similarly to bond underwriters, 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. Errors and sloppiness may exist, but in general, 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.

3.3 Charter School Financing

In California, 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. Unlike public schools, charter schools have no taxing authority, so they cannot pass bond measures or parcel taxes. This lack of a taxing authority means that charter schools must either occupy existing public school facilities (potentially displacing existing public school students) or seek grants and donations to fund non-district facilities, either leased or purchased. The federal government provides significant amounts of facilities grant money and delegates to the states the administration of the program and the disbursement of the actual grants.

An in-depth analysis of charter school finances requires a broader lens than one used for public schools because, in addition to all of the financial dealings of traditional public schools, almost all of which also apply to charter schools, charter schools have large and immediate needs for facilities that traditional public schools don't have. This brings into the picture bonds, loans, grants, leases, construction, and the purchase and sale of real estate. Traditional public schools do issue several kinds of bonds, levy parcel taxes, and buy real estate on which they build schools, but they do so infrequently. Usually public schools have done this years ago, but charter schools have an immediately and reoccurring need for facilities. They face these needs once when they start up, and whenever they outgrow their facilities because of increased enrollment. The needs of

charter schools for facilities and the financing associated with obtaining those facilities is more pressing, more immediate, and more common than the corresponding needs of traditional public schools whose enrollment doesn't fluctuate as much.³⁸

3.3.1 Charter School Financial Documents

The challenge for this inquiry will be to organize the financial documents and data collected so that gaps and anomalies can be identified, interesting and valid comparisons can be made with public schools and other charter schools, and the flows of money in and out of Rocketship can be identified. One way of organizing charter school data is chronologically from when they appear.

Table 3, *Charter School Financial Documents*, summarizes the official, publicly available, and required financial reports about charter school finances, in chronological order. Note that budgets, interim reports, LCAPs, and CAFRs are also required of public schools. Table 3, *Charter School Financial Documents* enumerates the various financial documents that are produced by charter schools.

Table 3
Charter School Financial Documents

Name	Description	Frequency	When
Initial Petition	Comprehensive description	Once	Before opening
Renewal Petitions	Similar to initial petition	Every 5 years	Years 5, 10, 15, ...
Budget	Complete financial plan	Annually	Before June 15 th
LCAP	How to meet state priorities	Every 3 years	With budget
Interim Reports	Current spending	Twice yearly	December, March
CAFR	Audited financials	Annually	In the following year

The first financial statement from a charter school is contained in their initial

³⁸Usually a public school district sees a change in enrollment because of significant demographic changes like immigration or emigration, birth rate increases or declines. Charter schools can see large enrollment changes absent any demographic change, even if the total number of students residing in a district stays the same. In some instances, increased enrollment in charter schools comes from public school students switching from the public school system to charter schools. This is what is happening to Oakland, CA and it produces simultaneous but opposite changes in enrollment.

petition. The purpose of the initial petition is to provide an authorizer with data on the charter school's educational program, pupil outcomes, methods to measure these outcomes, the charter school's governance structure, methods of racial and ethnic balancing, teacher and student health and safety, and among other measures.³⁹ Subsequent charter school data makes their appearance during the school year, and then finally when a certified audit is completed.

All of Rocketship's schools have both initial petitions, renewal petitions. These are voluminous, but fortunately the financial part is only a small portion of the total number of pages. In addition, each petition (usually) has a corresponding staff report prepared by authorizers which evaluates the petition. These six kinds of documents are reviewed in the sections which follow.

3.3.1.1 Petitions & Renewals

Before a charter school may legally begin operations, they must present to a chartering authority a petition which must contain certain required elements, and that petition must be accepted (with or without stipulations.) 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?

One of the required elements of any petition is a financial projection. Although no one expects a charter school (or any public school district for that matter) to prepare and adhere to a budget that exactly matches what's been projected, budgets are expected to be a reasonable approximation of future revenues and expenses.

Petitions run anywhere from a hundred or so pages to over a thousand and they contain a wealth of financial data. Fortunately, these documents are all publicly available and could, if needed, be the subject of a California Public Records Act (CPRA) request.

³⁹Ed. Code §47605 (c)(5)(A–O)

The CPRA is the California equivalent of the federal Freedom of Information Act (FOIA). Many of the documents mentioned in this dissertation are available from the California Departments of Education and Finance, or from the Santa Clara County Office of Education.⁴⁰

Since Rocketship schools are all operated by a single entity, (currently) Rocketship Education, DBA Rocketship Public Schools, a 501(c)(3) non-profit, their financial statements and those of their affiliates are rolled up into a single document, for example, “Rocketship Education, Inc. and Its Affiliates, Consolidated Financial Statements and Supplementary Information, Year Ended JUNE 30, 2022 (with Summarized Financial Information for the Year Ended June 30, 2021)”. Every school is included in this single document, as are separate Launchpad Development LLC’s that actually own the facilities leased to individual schools, plus two other non-profits that provide specialized service to the individual schools.

3.3.1.2 Authorizer Staff Reports

Another set of documents that are related to initial and renewal petitions are the staff reports which usually accompany the agenda item which considers the charter school’s petition for approval. Here the authorizer’s staff presents the findings and rationale for their recommendation to approve or not the petition of the charter school.

3.3.1.3 Budgets, Interim Reports, and CAFRs

Once a charter has been granted the right to operate, it must file annually with the California Department of Education, just like public school districts, 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

⁴⁰ Since these documents are required to be publicly available and may be freely copied, no copyright is applicable.

school's finances, and crucially, everything should be in agreement. Charters must approve and publish at a public meeting their annual budget, and they, just like traditional public schools, cannot spend unbudgeted money unless the governing board approves any changes at a public meeting.

Interim reports detail the differences between a school's budgeted revenue and expenses and actual revenue and expenses. Interim reports are filed twice each year in January (covering July - December) and April (covering January - March). As with the annual budget, deviations must be approved at a public meeting.

CAFRs (Comprehensive Annual Financial Report) are audited by an independent public accounting firm and are the definitive record of actual revenues and expenses. They are submitted to the school's county office of education (COE) to be forwarded the state Department of Education.

3.3.1.4 LCAPs,

Like public schools in California, charter schools must submit an Local Control Accountability Plan (LCAP) that details how the charter school will meet the eight state LCFF priorities in the following areas

1. basic services and school conditions
2. state academic standards
3. parent engagement
4. student achievement
5. student engagement
6. access to a broad program of study
7. outcomes of a broad program of study

The intent of the LCAP is for schools to identify what they need to improve, paying particular attention to underserved groups, and how they plan to improve, and how they will measure improvement.

3.3.1.5 Board and Committee Supporting Material

Another source of financial data is not official in character are, as mentioned, staff reports, but also background material, presentations, and other documents that serve as input to board and committee meetings of both public schools and charter schools.

Rocketship publishes on their website, as required by California's Brown Act, agendas and supporting material for its board meetings and for certain committee meetings.⁴¹

Currently, Rocketship only provides meeting agendas and supporting material going back to February 2017. However, they previously had made available material going back to their founding in 2006, and that data will be part of this study.

3.4 Charter Schools and Real Estate

The last major financial topic of interest has to do with real estate. Since charter schools in California must obtain the facilities they plan to occupy before they receive any per-pupil state funding, real estate looms large in charter school finances. Charter schools have some leeway to choose whether to own or lease, and how to finance the acquisition of facilities.

3.4.1 Facilities Options

As shown in Table 4, *Charter School Facilities Options*, charter schools have three options: co-locate, lease, or buy.

Real estate transactions entail numerous, detailed documents, as anyone who has bought a house is painfully of. Many of these documents are publicly available. Those that are not are typically not public offerings. If the school's facilities are leased, and SB740 funds are used to pay part of the rent, then appraisals and the amount of rent should be available from the administrator of the SB740 program. If a charter school co-locates,

⁴¹The Brown Act requires board-appointed committee meetings to be open if they are standing meetings whose subject matter is within the jurisdiction of Rocketship's board, or if a majority of Rocketship's board are members of the committee.

Table 4
Charter School Facilities Options

Option	Description
Co-locate	The charter school occupies “reasonably equivalent” facilities provided by the public school district in which the charter school is located.
Lease	The charter school occupies facilities that it leases.
Own	The charter school buys existing facilities or builds their own.

then terms have to be approved at a open meeting of the public school district in which the charter is located, and those a public documents. Ownership, with or without construction, has even more documents associated with the facility.

3.4.1.1 Co-Locating

The least costly option for charter schools is to co-locate in an existing school. Proposition 39 and enabling regulations⁴² require that school districts furnish facilities for all in-district charter school student that are reasonably equivalent to those of students in the district in which the charter school resides. Facilities include regular and specialized classrooms, administrative offices, playgrounds, and athletic fields. It doesn't matter if the school district has unused space or not. It doesn't matter if the charter school grows in enrollment year over year. School districts are required to furnish reasonably equivalent facilities under Proposition 39. However, districts and charter schools may enter agreements outside of Proposition 39 concerning what facilities districts will provide to the charter school.

In theory co-locating is the least costly and most timely option for charter schools to obtain facilities, but often there is litigation over the extent or appropriateness of the facilities that the district has provided. Sometimes these lawsuits can drag on for years, often at a considerable expense for both the charter school and the public school district supplying the facilities.

⁴²Ed. Code §47614 et seq. and 5 CCR § 11969.1

3.4.1.2 Leasing

Charter schools may lease their facilities from either a related party, or at arms length, from an unrelated party. Terms and length of leases vary. If the lessor is an unrelated party, the charter schools may take advantage of grants offered by the Charter School Finance Authority authorized by California SB740⁴³ “to offset annual on-going facility costs for charter schools that service a high-percentage of students eligible for free or reduced-price meals (FRPM) or located in a public elementary school boundary serving a similar demographic” (California State Treasurer, 2023). The amount of the grant is the lesser of the school’s ADA \times \$1,420 or the annual rent \times 75%⁴⁴ To be eligible, charter schools must “service a high-percentage of students eligible for free or reduced-price meals (FRPM) or [be] located in a public elementary school boundary serving a similar demographic” (California State Treasurer, 2023).

If the charter school is leasing from a related party, usually SB740 grants are not available. However, the definition of *related party* does not include non-profit entities whose only business is supporting charter schools. For example, a non-profit charter school may lease a property from a related non-profit entity whose only business is owning and maintaining that property. This is the relationship that Rocketship Education has with the owners of the facilities they lease. The structure of Rocketship Education is diagrammed in Figure ??, ??.

3.4.1.3 Owning

The third way of obtaining facilities is to own the needed facilities, or to have a related party own the facilities. These might be purchased, or the land purchased and the facilities constructed. Most public school districts own their own facilities, but since

⁴³Ed. Code §47614.5 et seq. and CCR §10170

⁴⁴This is the basic calculation. As expected, there are variations and permutations, and these are enumerated in Section 6, Grant Award Calculations of the program’s FAQ. The principle limitation is that the charter school must serve.

these were likely bought and built using bond money derived from taxes, charter schools, lacking taxing authority, are unable to pay for their facilities this way.

3.4.2 Funding Facility Ownership

If a charter schools decides they should own their own facilities, there are a number of ways they can go about this, as shown in prettyreftab:paying-for-facilities.

Table 5
Options for Paying for Facilities

Option	Source of Funds
Private grants	Private entities (individuals or foundations) may make a grant or a loan to a charter school.
Venture Funds	Venture Funds which ostensibly intend to make money often loan money to charter schools.
Federal or State grants	Both the federal government and states have programs which offer funds that may be used to pay for existing facilities or for new construction.
Tax credits	The federal government offers tax credits for investors whose investments meet certain criteria.
Bonds	Charter schools may use the commercial or municipal bond markets to obtain funds, but property or parcel taxes may not be used to pay them off.

3.4.2.1 Private Funding: Loans and Foundation Grants

Individuals or non-public entities often loan or give money to charter schools, including Rocketship. Some are outright grants; others are expected to be paid back; still others may be partially paid back and then forgiven. Each grant has its own set of terms and interest rate.

3.4.2.2 Venture Funds

The NewSchools Venture Funds, the Charter School Fund, and the Charter School

Growth Fund are just a few examples of venture funds that specialize in charter schools. Since it is unlikely that investors will invest in a fund that does not return a profit, establishing exactly how these funds turn a profit is going to be a goal of this study's explorations.⁴⁵

3.4.2.3 Tax Credits

Tax credits are often used as a source of funds to buy or construct facilities. For example, the New Markets Tax Credit is a 39% tax credit, usable over seven years, available to those who make an investment in specified economically depressed neighborhoods. A 39% tax credit is roughly twice the current corporate tax rate which means that this credit wipes out the taxes on gains equal to twice the initial investment (which may itself also have a return).

3.4.2.4 Bonds

All bonds are risky to some extent, some more than others, and purchasers of those bonds are compensated for taking on that risk by being paid interest on the amount borrowed. So, when a bond is issued, the terms (e.g. interest rate, repayment schedule, collateral, etc.) are described in great detail in a prospectus. These prospectuses, in addition to the terms, contain financial information relevant to assessing the risk associated with purchasing that bond. Bonds, after all, are loans, and when millions of dollars are being loaned, those making the loans want to be assured of getting paid back and paid back on time, particularly since charter schools are known to close abruptly.

Bond prospectuses can be mined for data that might not appear in petitions or 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

⁴⁵It is interesting that none of the web sites of these funds mentions that fund's return on investment (ROI). The absence of any indication of a return on investment is either an innocent mistake or much more likely, an attempt at obfuscation.

exercise due diligence or the misrepresentation is not material, the underwriters 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 make a reasoned guess at their exposure to liability. The result is that bond underwriters are likely to be more diligent than is absolutely necessary.

3.5 Other Data

Various other data pertaining to Rocketship exists:

- numerous datasets
- state and federal filings
- curated social media

3.5.1 Datasets

Vast amounts of data are available from the federal, state and local governments, easily over half a million datasets each containing anywhere from a hundred elements to a hundred thousand elements. Unfortunately these data have been collected in different formats, over different time periods, using different inclusion criteria, more or less carefully. Picking a subset of educational data to use and then cleaning it is a huge endeavor well beyond the scope of this dissertation. That being said, a very small subset of available datasets will be consulted, based on an immediate need. The most likely datasets to be consulted are those maintained by:

- California Department of Education and State Board of Education
- The County of Santa Clara and the Santa Clara County Office of Education
- The California Open Data Portal
- National Center for Education Statistics (NCES) at the Institute for Education Sciences (IES)
- Stanford Educational Data Archive (SEDA)

- School Finance Indicators Database
- EdSource, Ed-Data, and other aggregators of educational data specific to California

3.5.2 State and Federal Filings

Two filings are of particular interest, one with the state, and one with the federal government: FPPC Form 700, Statement of Economic Interests, and IRS Form 990, Return of Organization Exempt from Income Tax. Both forms force the disclosure of personal financial information (Form 700) or personal financial information and business financial information (Form 990).

Some officers of Rocketship may be required to submit annually to the California Fair Political Practices Commission (FPPC) Form 700, Statement of Economic Interests. This particular requirement of charter school officers is not settled law⁴⁶, but if Form 700 is filed, it will list the submitter's assets and income that are related to the position they hold in Rocketship Education or Launchpad Development. The intent is to prevent related-party transactions by enumerating an officer's economic interests so that a school can avoid doing business with entities that might indirectly benefit an officer. (Of course, direct benefit is absolutely not permitted, and if it occurs, is graft.)

The federal Internal Revenue Service grants income tax exemptions to organizations that meets the requirements of §501(c)(3) of the Internal Revenue Code.⁴⁷ These organizations must file Form 990 annually that provides some minimal financial data.⁴⁸

⁴⁶Rocketship's initial petition for Mateo Sheedy states that Form 700, Statement of Economic Interest, shall be filed by all board members, candidates for board membership, corporate officers, principals and assistant principals, among others.

⁴⁷26 USC 501, i.e. Title 26, Subtitle A, Chapter 1, Subchapter F Part I § 501(c)(3)

⁴⁸Tax returns of for-profit organizations are not public documents and their contents do not have to be disclosed; however, in order to sell stock to the public, i.e. to be listed on a stock exchange, firms are required to publish various financial documents, which like bond prospectuses, are required to be informative and complete.

3.5.3 Curated Social Media Some web sites maintain data related to Rocketship. For example, the Scoop.It topic, Charter Schools & “Choice: A closer look” D. R. Marachi (2016–2023) is devoted to charter schools in general, but also has much material on specifically on Rocketship. The now extinct web site, *StopRocketship!*, was created and maintained by community volunteers.

3.6 Gaps and Anomalies

No financial statement is perfect, and not all are in agreement. But there is a difference between an innocent mistake or omission and one designed to deceive and mislead. Triangulation can be used to capture gaps and anomalies.

3.6.1 Triangulation

Triangulation is the process of comparing different documents from different sources. The greater the number of sources, the greater the chance of catching gaps and anomalies.

Questions one might ask are

- Does everything add up?
- Are there important, missing documents?
- How much do these gaps or anomalies matter?
- Are the oddities long-standing or fleeting?

Examples of triangulation might be comparing Rocketship’s LCAPs to their budget, or comparing IRS Form 990 data to their audited financial statements.

Chapter 4, *Findings*, the next chapter will present the results of exploring the data which has been identified in this chapter. The last chapter, Chapter 5, *Discussion*, will evaluate the findings.

Findings

This chapter will present the data found using the approach outlined in Chapter 3, *Research Design and Methodology* with the goal of answering my research question: Has Rocketship structured itself and its finances, to earn a return to investors, focusing especially on real estate transactions, and if so, how?

The first section will give a potted history⁴⁹ of Rocketship in Section 4.1, *Rocketship History*, including a section on how Rocketship has structured itself.

Since real estate is so important for Rocketship, the next section, Section 4.3.1, *Rocketship Locations and Property Information* will lay out what facilities Rocketship has, where those facilities are located, when they were acquired, and what real estate rights Rocketship has over those properties.

4.1 Rocketship History

4.1.1 Rocketship's Corporate Structure

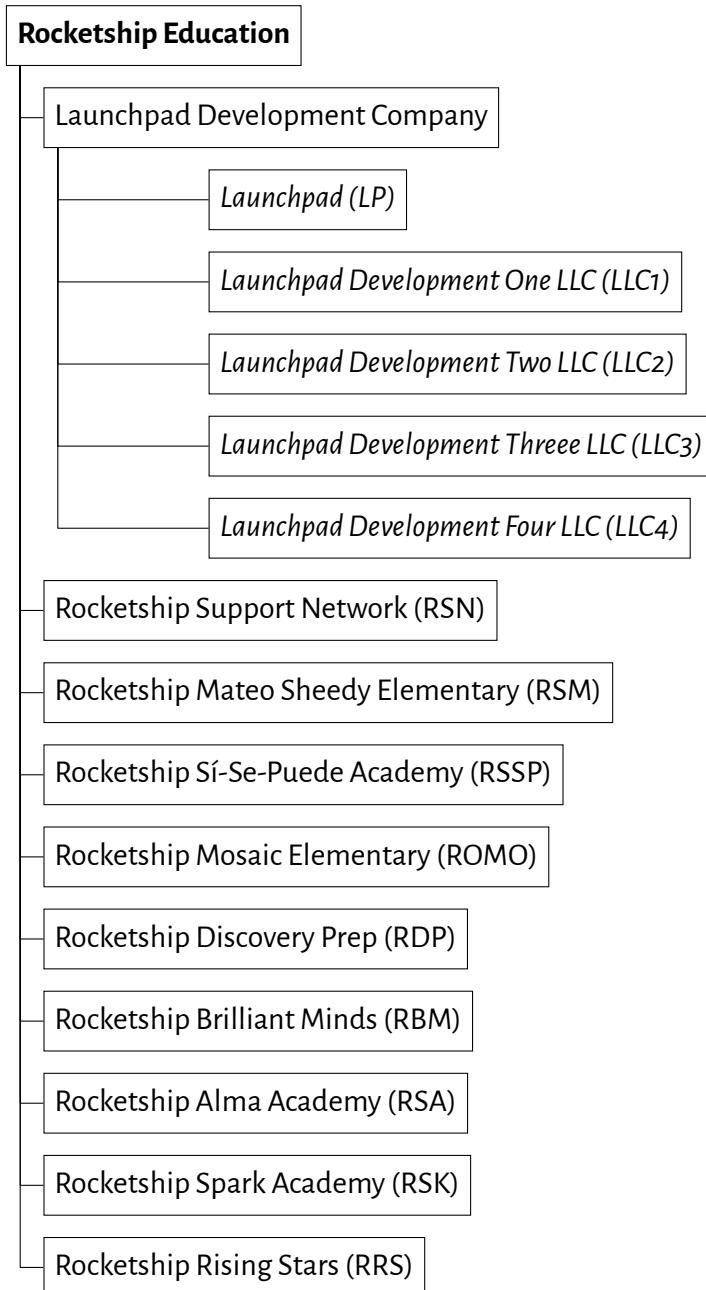
Rocketship's corporate structure was designed from the start to separate schools and their operation from facilities and their construction and maintenance. Rocketship Education is the parent company, a 501(3)(c) non-profit. It owns all the schools, themselves non-profits, plus Launchpad Development Company, another non-profit. Launchpad Development's role is to own all the facilities, one non-profit LLC per location. This structure is diagrammed in Figure ??, ??.

4.2 Charter School Financing

4.2.1 Charter School Financial Documents

⁴⁹"A potted history is brief, a quick summary. Potted meat is meat, usually not of the highest quality, processed and preserved in a tin. The expression is often used in a derogatory way..." — bobro in <https://english.stackexchange.com/questions/237443/what-does-potted-history-mean>

Figure 2
Rocketship's Corporate Structure (Santa Clara County only) Schools



4.2.1.1 Petitions & Renewals

The current number of pages of initial and renewal petitions runs to 7371 pages for

just Rocketship schools in Santa Clara County.⁵⁰

4.2.1.2 Authorizer Staff Reports

4.2.1.3 Budgets, Interim Reports, and CAFRs

4.2.1.4 LCAPs,

4.2.1.5 Board and Committee Supporting Material

4.3 Charter Schools and Real Estate

4.3.1 *Rocketship Locations and Property Information*

Table 6
Rocketship Property Information

School	Address	Property Information
Mateo Sheedy	788 Locust St., San José, CA 95110	Section B.1, <i>Mateo Sheedy</i>
Sí Se Puede	2249 Doheny Ave, San José, CA 95116	Section ??, ??
Los Sueños	331 S. 34th St, San José, CA 95116	Section B.3, <i>Los Sueños</i>
Discovery Prep	370 Wooster Ave, San José, CA 95116	Section B.4, <i>Discovery Prep</i>
Mosaic	950 Owsley Ave, San José, CA 95122	Section B.5, <i>Mosaic</i>
Brilliant Minds	2960 Story Rd, San José, CA 95127	Section B.6, <i>Brilliant Minds</i>
Alma Academy	198 West Alma Ave, San José, CA 95110	Section B.7, <i>Alma Academy</i>
Spark Academy	683 Sylvandale Ave San José, CA 95111	Section B.8, <i>Spark Academy</i>
Fuerza	70 S. Jackson Ave, San José, CA 95116	Section B.9, <i>Fuerza</i>
Rising Stars	3173 Senter Road, San José, CA 95111	Section B.10, <i>Rising Stars</i>

4.3.2 *Facilities Options*

4.3.2.1 Co-Locating

4.3.2.2 Leasing

4.3.2.3 Owning

4.3.3 *Funding Facility Ownership*

4.3.3.1 Private Funding, Loans, and Foundation Grants

⁵⁰The massive size of some of these petition calls into question whether authorizers read them in their entirety.

4.3.3.2 Venture Funds

4.3.3.3 Tax Credits

The New Market Tax credit of 39% (5% for the first 3 years, and 6% for the remaining 4 years) can be applied to taxes due from other investments. Since there is a compounding effect, the 39% is actually worth over 41% of the initial investment. Note that these other investment may themselves have a return. With these kinds of incentives, it's no wonder that the New Markets Tax Credit is popular. But one should not be deceived into thinking that just because New Markets Tax Credits must be made in economically depressed area that investors are investing out of the goodness of their heart. The tax credit investment is nearly without risk because the tax credit is guaranteed as long as the charter school remains open. If the school stays open for seven years, the risk is zero.

4.3.3.4 Bonds

Three bond prospectuses total over 1000 pages.

4.4 Other Data

4.4.1 Datasets

4.4.2 State and Federal Filings

4.4.3 Curated Social Media

4.5 Gaps and Anomalies

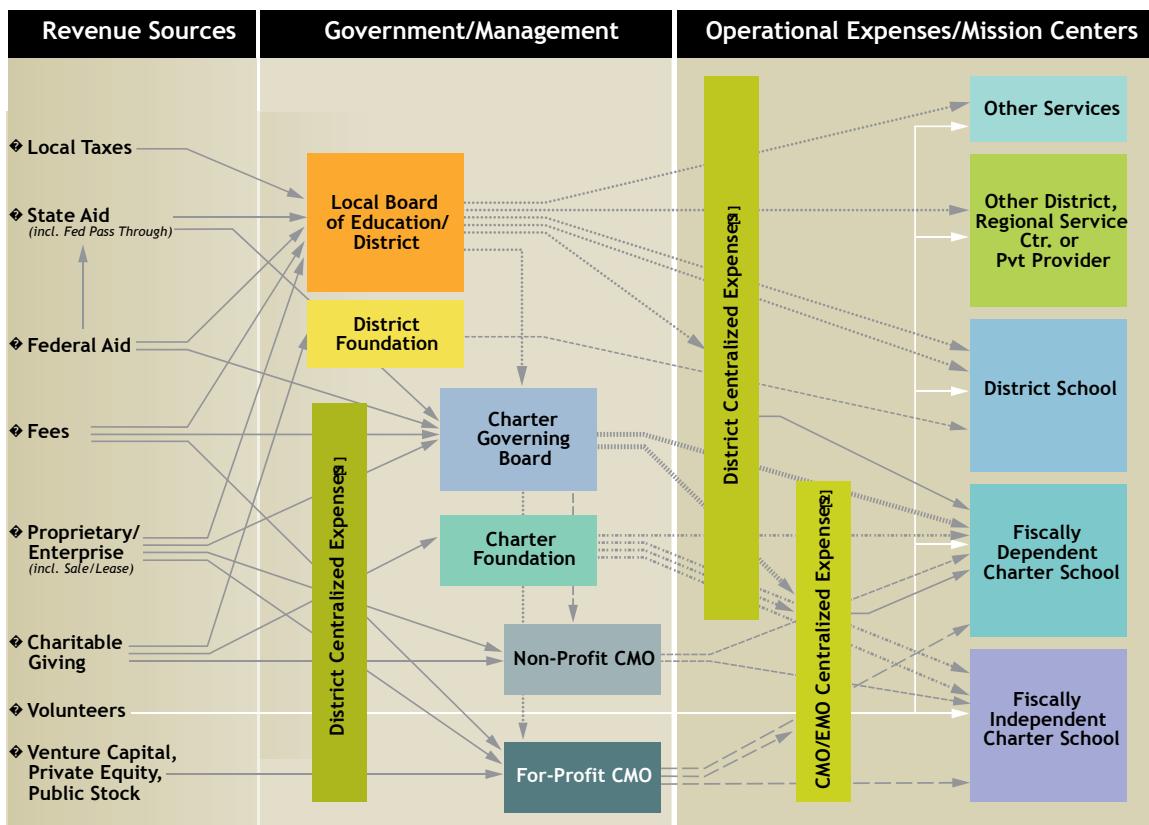
Since a goal of this dissertation is to map the flow of money into and out of Rocketship, I will use diagrams similar to the one used by B. Baker and Miron (2015), which is reproduced here as Figure 3, *Operating Resource Flows*.

4.5.1 Triangulation

These data represent the monies that are flowing into Rocketship/Launchpad related to facilities, real estate, bonds, loans, and donations and not tied to the number of

students. Once that's been assembled, roll up into one spreadsheet, Rocketship's consolidated financial statements for the fourteen years (2008–2022). The consolidated financial statements can then be compared against the known real estate, bond, loan, and donation transactions. Note where data is missing or where it conflicts with the consolidated financial statements.

Figure 3
Operating Resource Flows



B. Baker and Miron (2015, p. 16).

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

Discussion

References

- Aguinaldo, L., Fry, D., Garcia, B., Gray, J., Heckler, D., Herrera, P., Hyland, K., McCaskill, W., Pelletiere, A., Phillips, M., Speck, S., Spencer, K., & Underwood, M. M. (2022). *School Funding and Accountability in California: A Guide to K-12 Public School Finance in California* (2022 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. (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.
- Andrea Gabor. (2015, April 28). *New CREDO Study, New Credibility Problems: From New Orleans to Boston*. Andrea Gabor. Retrieved July 29, 2020, from
<https://andreagabor.com/2015/04/28/new-credo-study-new-credibility-problems-from-new-orleans-to-boston/>
- Baker, B., & Miron, G. (2015, December). *The business of charter schooling: Understanding the policies that charter operators use for financial benefit*. (Technical report). National Education Policy Center, School of Education, University of Colorado.
<http://nepc.colorado.edu/publication/charter-revenue>
- 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., 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.

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.

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., & 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. (n.d.). *Enrollment for Charter and Non-Charter Schools - Santa Clara County* (Online data reporting portal). California Department of Education. Retrieved May 5, 2021, from
<https://dq.cde.ca.gov/dataquest/DQCensus/EnrCharterLevels.aspx?cds=43&agglevel=County&year=2020-21>
ItemType: dataset.

California State Treasurer. (2023, June 12). *Charter School Facility Grant Program (Senate Bill 740 Program)*. State Treasurer's Office. Retrieved June 12, 2023, from <https://www.treasurer.ca.gov/csfa/csfgp/index.asp>

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

Clark-Herrera, E., Bauer, M., Brewer, T., Steffi Chan, Glymph, D., Kathryn Garner, & Radecki, A. (2019). *Public Charter Schools: Borrowing With Tax-Exempt Bonds (Third Edition)*. Copyright © 2019 by Orrick, Herrington & Sutcliffe LLP.

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.

Coleman, J. S. (1966). *Equality of Education Opportunity* (ED012275). National Center for Educational Statistics. Washington, D.C. Retrieved May 2, 2020, from <https://files.eric.ed.gov/fulltext/ED012275.pdf>

Cook, M. A. (2009, April 21). *Mainstreet Los Gatos: Rocketship blasts off to bridge the education gap*. The Mercury News. Retrieved April 18, 2022, from
<https://www.mercurynews.com/2009/04/21/mainstreet-los-gatos-rocketship-blasts-off-to-bridge-the-education-gap/>

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>

Cunningham, M. T. (2021). *Dark Money and the Politics of School Privatization*. Springer International Publishing. Retrieved January 24, 2023, from
<https://link.springer.com/10.1007/978-3-030-73264-6>

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. (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.

Downey, D. B. (2020). *How schools really matter: Why our assumption about schools and inequality is mostly wrong*. University of Chicago Press.
<https://books.google.ca/books?id=CJAEAAAQBAJ>

Dubb, S. (2017, November 14). *Sackler Applies OxyContin Marketing Lessons to Charter School Movement*. Non Profit News | Nonprofit Quarterly. Retrieved March 17, 2022, from

<https://nonprofitquarterly.org/sackler-applies-oxycontin-marketing-lessons-charter-school-movement/>

Enlow, R. C. (2022). *The ABCs of School Choice*. EdChoice.

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>

FCMAT. (2022, February). Charter Petition Evaluation Matrix. Retrieved March 8, 2022, from <https://www.fcmat.org/publicationsreports/charter-petition-eval.pdf>

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*. Information Age Pub. <https://books.google.com/books?id=s4wyIF2RgxEC>

Golann, J. W. (2021). *Scripting the Moves: Culture and Control in a “No-Excuses” Charter School*. Princeton University Press.

Goldstein, D. (2015). *The teacher wars: A history of America’s most embattled profession*. Anchor Books.

Gove, A. K., & Meier, N. S. (2000). California Charter Schools: Forcing Competition and Innovation in Public Schools, 30.

Government Accounting Standards Board. (2019, May). Statement 91 of the governmental accounting standards board: Conduit debt obligations. Retrieved March 8, 2023, from <https://fasb.org/Page>ShowPdf?path=GASBS91.pdf>

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>

Heilig, V., Brewer, T. J., & Williams, Y. (2019). Choice without Inclusion?: Comparing the Intensity of Racial Segregation in Charters and Public Schools at the Local, State and National Levels. *Education Sciences*, 9(3), 205.

<https://doi.org/10.3390/educsci9030205>

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*. Princeton 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>

Horn, M. B., & Staker, H. (2015). *Blended: Using Disruptive Innovation to Improve Schools*. Jossey-Bass.

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=O2J82AiJ4G8C>

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 [Video]. (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=nJf7PhOEicUC>

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. (2017a). *The one percent solution: how corporations are remaking America one state at a time*. Retrieved May 13, 2022, from
<https://doi.org/10.7591/cornell/9781501703065.001.0001>
OCLC: 960641999.

Lafer, G. (2017b, 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>:

//pjmedia.com/election/stacey-lennox/2020/06/17/president-trump-calls-school-choice-the-civil-rights-issue-of-our-time-n542977

Lubienski, C. A., & Lubienski, S. T. (2014). *The Public School Advantage: Why public schools outperform private schools*. University of Chicago Press.

Marachi, D. R. (2016–2023). *Charter Schools & "Choice": A closer look* [<https://www.scoop.it/terms-of-use>]. Charter Schools & "Choice": A closer look. Retrieved July 15, 2023, from <https://www.scoop.it/topic/charter-choice-closer-look>

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>

Mommandi, W., & Welner, K. (2021). *School's Choice: How Charter Schools Control Access and Shape Enrollment*. Teachers College Press.

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_Final.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://charter-school-center.ed.gov/sites/default/files/files/field_publication_attachment/Accessing%20Federal%20Programs%20-%20A%20Guidebook%20for%20Charter%20School%20Operators%20and%20Developers.pdf

National Education Policy Center. (n.d.). National Education Policy Center. Retrieved November 16, 2021, from <https://nepc.colorado.edu/about-us>

Nichols, S. L., & Berliner, D. C. (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.

Pearce, K. (2016, September 30). *An enduring legacy: The study that changed the conversation on education equality*. The Hub. Retrieved August 6, 2022, from <https://hub.jhu.edu/2016/09/30/coleman-report-at-50-conference/>

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.

Reardon, S. F. (2016). School Segregation and Racial Academic Achievement Gaps. *RSF: The Russell Sage Foundation Journal of the Social Sciences*, 2(5), 34–57. <https://doi.org/10.7758/RSF.2016.2.5.03>

The Republican Party platform of 1980 [Archived by The American Presidency Project at the University of California, Santa Barbara.]. (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). *Overturning 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.
- Torres, A. C., & Golann, J. W. (2018, April). *NEPC Review: Charter Schools and the Achievement Gap*. National Education Policy Center, School of Education, University of Colorado. Boulder, CO. Retrieved March 30, 2021, from <http://nepc.colorado.edu/thinktank/review-no-excuses>
- 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). Nation Education Policy Center. Boulder, CO. Retrieved May 6, 2021, from <http://nepc.colorado.edu/publication/%20virtual-schools-annual-2021>

Warren, M. C. J. E. (1954, May 17). *Brown v. Board of Education of Topeka*, 347 U.S. 483 (1954). <https://catalog.archives.gov/id/1656510>

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.

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>

Part I

Appendices

School Financing in California

This appendix presents an example of public school financing in California.⁵¹

Understanding the normal, usual, default financing of schools in California is necessary in order to be able to identify where Rocketship's might differ. The description which follows is necessarily high-level; the budget document for 2022–23 that LASD submits to SCCOE and hence to the state runs to 118 pages of unadorned tables derived from accounting spreadsheets.

First, the highest possible level look at a LASD budget is presented. This is the *All Funds Summary*. Next are five tables that delve one level down from the *All Funds Summary*. Each of those tables can be further decomposed until individual SACS accounting (object) codes are reached. SACS code reflect exactly one kind of expenditure or revenue. For example, money received from the Federal Emergency Management Agency (FEMA) is recorded under SACS object code 8281 and no where else. How that money is spent is recorded under object code 8285. The lowest level of accounting is money received or money paid. All money received goes into at least one fund and is recorded under at least one object code. Payments are handled correspondingly. The intent of this process is to record unambiguously and completely every monetary transaction.

Public school districts and charter schools receive funding from the state and the federal governments which most often goes into a district's or school's General Fund. A portion of funding is restricted to particular programs, and sometimes that money goes into a specialized and restricted fund, but the norm is for the General Fund to account for the majority of transactions.

The first table to look at is the aggregate of all funds as shown in Figure 4, LASD

⁵¹For a more detailed look at what a complete budget document looks like, see “LASD 2022–23 Annual Budget” of Item H.4 of the June 13, 2022 LASD Board Meeting (<https://tinyurl.com/lasd-2022-23-annual-budget>). Note that most public school budget documents are not as comprehensive or as well put together as LASD's are.

2019–20 All Funds Summary. It is a very high-level summary of a school's or a district's budget. It's a snapshot of what the district's revenues are expected to be, roughly where that revenue is expected to come from, what the district's expenses are expected to be, and whether revenue and expenses are expected to be in balance. It is the rough equivalent of a business income statement.⁵²

Because Figure 4, LASD 2019–20 All Funds Summary, is a snapshot, detecting unusual changes year-to-year is not possible. Changes are detectable using Figure 5, *LASD YE 2020 Summary of Net Position* which compares fiscal two years. However, with just a budget summary, one can nonetheless note some interesting ratios, for example, the percentage of expenses spent on salaries and benefits. For LASD in 2021–20, this is 80.18% which is in line with what is typical of elementary school districts in California. One can calculate the state-wide average for all districts for 2019–20 using the Data Table at www.ed-data.org/state/CA, and that comes out to 83.71%. So, LASD spends a little less on salaries and benefits than the average elementary school district in California does.

Calculating this ratio brings up a general issue: What is an appropriate comparison group? In this particular case, the Ed-Data web site does not have county-level financial data, so the only comparison which can easily be made is at the state level. But should the state-level comparison group be all districts, or just elementary school districts? Should “basic aid” districts, also called “community-funded” districts, districts whose property tax revenues exceed their LCFF entitlement, be included or not? Again, the Data Table tab on www.ed-data.org/state/CA does not filter by type of district (although the Graph tab

⁵²Schools 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 funds 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 LASD. Other schools may have a different set of funds, but all contain a General Fund that is the primary fund for their day-to-day financial activities.

Figure 4
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.

Kenyon (2019, p. 38).

does), so, in this case, using just the Ed-Data data, our choices are forced since we cannot use state-level data.

The other common financial business report is the balance sheet, which identifies assets and liabilities. In the educational world, this is the statement of net position.

Figure 5, *LASD YE 2020 Summary of Net Position* shows LASD's assets and liabilities at the end of the 2019–20 school year. Note that unlike a balance sheet, a statement of net position for schools (and other governmental entities) does not balance; assets are not

exactly equal to liabilities.⁵³

As an example of a number which stands out and is therefore worth investigating, is the large increase in Capital Assets, year over year, an increase of \$132M (line 3 of Figure 5, *LASD YE 2020 Summary of Net Position*). In “Comprehensive Annual Financial Report FY 2020,” six notes appear immediately after Figure 5, and these provide an explanation for the increase: LASD purchased a property whose cost was \$134.9M net of \$2.7M in depreciation. This purchase shows up again in line 1 of Figure 8, *LASD YE 2020 Capital Assets* and explains the enormous 9052% increase in the value of LASD’s largest asset in FY2019, land.

In addition, the “Comprehensive Annual Financial Report FY 2020” contains a section, on pp. 19–45, called *Notes to the Basic Financial Statements*. These notes are an integral part of the certified, audited annual statement, just as they are in audited financial reports in the business world; they cannot be omitted, and must be accurate and complete. Note 7B of Kenyon (2021a, p. 7), General Obligation (GO) Bond Anticipation Notes (BANs), explains how LASD uses a common technique to convert general obligation bonds into cash: issue BANs, backed by general obligation bonds, and payable when those GO bonds are issued.⁵⁴

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

Within a CAFR are five summaries of financial tables that go one level deeper than the

⁵³Business accountants achieve this seemingly low probability equality by adding a fudge factor, *owner’s equity*, so that *assets = liabilities + equity* always, exactly.

⁵⁴One 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 5
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%
<i>Deferred Outflows of Resources</i>	\$ 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%
<i>Deferred Inflows of Resources</i>	\$ 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%

Kenyon (2021a, p. 6).

All Funds Summary. These are

- Summary of Net Position (Figure 5, *LASD YE 2020 Summary of Net Position*)
- Change in Net Position (Figure 6, *LASD YE 2020 Change of Net Position*)
- Net Costs of Services (Figure 7, *LASD YE 2020 Net Cost of Services*)
- Capital Assets (Figure 8, *LASD YE 2020 Capital Assets*)
- Long-term Liabilities (Figure 9, *LASD YE 2020 Long-term Liabilities*)

LASD rolls up its detailed financial data into a single multi-year summary, as shown in Figure 10, *LASD 2019–20 Multi-Year Projection*. In addition to purely financial data, the multi-year summary includes the key assumptions that were behind the numbers. In

Figure 6
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%	
<i>Total Revenues</i>	<i>84,549,699</i>	<i>106,711,414</i>	<i>22,161,715</i>	<i>26%</i>	
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%	
<i>Total Expenses</i>	<i>80,028,195</i>	<i>83,596,957</i>	<i>3,568,762</i>	<i>4%</i>	
Change in Net Position	4,521,504	23,114,457	18,592,953	411%	
<i>Beginning Net Position</i>	<i>(23,111,506)</i>	<i>(18,590,002)</i>	<i>4,521,504</i>	<i>20%</i>	
<i>Ending Net Position</i>	<i>\$ (18,590,002)</i>	<i>\$ 4,524,455</i>	<i>\$ 23,114,457</i>	<i>124%</i>	

Kenyon (2021a, p. 7).

Figure 7
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%	

Kenyon (2021a, p. 9).

Figure 8
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%	
<i>Total</i>	136,924,628	271,698,219	134,773,591	98%	
<i>Less: Accumulated Depreciation</i>	47,879,087	50,621,771	2,742,684	6%	
Net Capital Assets	\$ 89,045,541	\$ 221,076,448	\$ 132,030,907	148%	

Kenyon (2021a, p. 10).

Figure 9
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%	

Kenyon (2021a, p. 11).

fact, the first section of Figure 10 is only assumptions, and it is those assumptions which drive the numbers in Sections 2–4. The value of this summary is that it captures in one table the key data needed to make budgetary decisions and thus might serve as a template for what data is important.

Figure 10
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%

Kenyon (2021b, p. 137).

Rocketship Property Information

Each of the 10 existing Rocketship schools in Santa Clara County which were listed in Table ??, ?? are described in a section

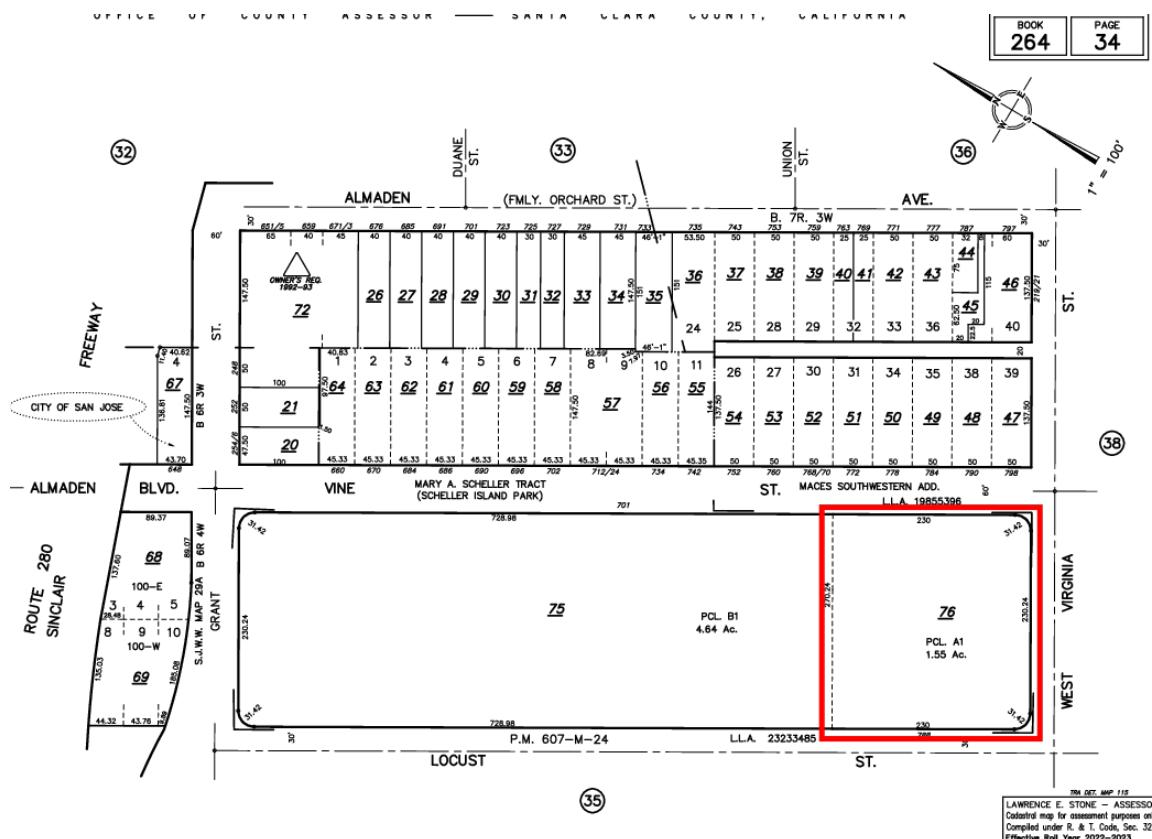
Except for the photos, all of the information presented in this appendix is available from the web site of the Office of the Assessor, County of Santa Clara, under the heading “Real Property Search” (<https://tinyurl.com/assessors-office-santa-clara>).

B.1 Mateo Sheedy

Table 7
Mateo Sheedy: Property Information

Property Address 788 Locust St., San José, CA 95110
Assessor's Parcel No. 264-34-076
Size (acres) 1.55
Date of Last Sale 11 Mar 2016

Figure 11
Mateo Sheedy Plat Map



Santa Clara County Assessor's Office (n.d.). [Plat Map]. Retrieved 22 Dec 2022 from <https://tinyurl.com/mateo-sheedy-plat-map>.

Table 8
Mateo Sheedy: Taxable Amount of Assessed Property

Year	Land	Improvements	Total Assessed Value
2022	\$3,011,899	\$780,861	\$3,792,760
2021	\$2,952,843	\$765,550	\$3,718,550
2020	\$2,922,566	\$757,701	\$3,680,267

Figure 12
Mateo Sheedy Satellite Photo



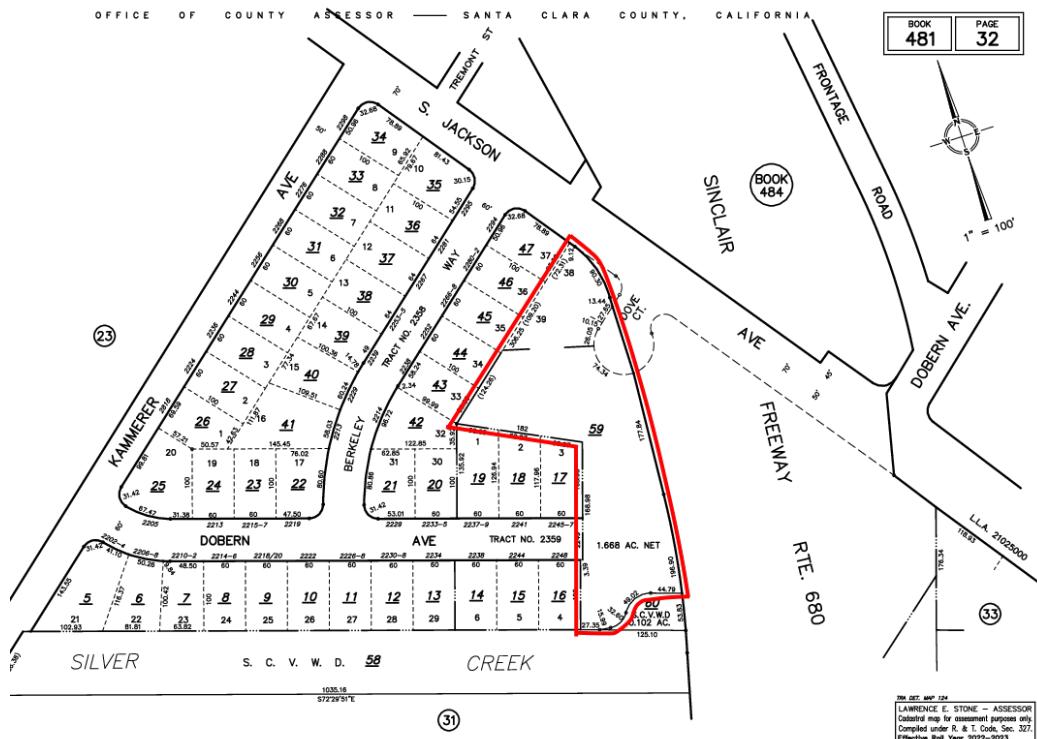
Google. (n.d.). [Google Earth image]. Retrieved 19 Dec 2022 from <https://tinyurl.com/mateo-sheedy>.

B.2 Sí Se Puede

Table 9
Sí Se Puede: Property Information

Property Address	2249 Dobern Ave, San José, CA 95116
Assessor's Parcel No.	481-32-059
Size (acres)	1.668
Date of Last Sale	20 Mar 2014

Figure 13
Sí Se Puede Plat Map



santa clara county assessor's office (n.d.). [Plat Map]. retrieved 22 dec 2022 from
<https://tinyurl.com/si-si-puede-plat-map>.

Table 10

Sí Se Puede: Taxable Amount of Assessed Property

Year	Land	Improvements	Total Assessed Value
2022	\$5,545,914	\$5,411,914	\$10,957,828
2021	\$5,437,171	\$5,305,799	\$10,742,970
2020	\$5,381,420	\$5,251,395	\$10,632,815

Figure 14

Sí Se Puede Satellite Photo



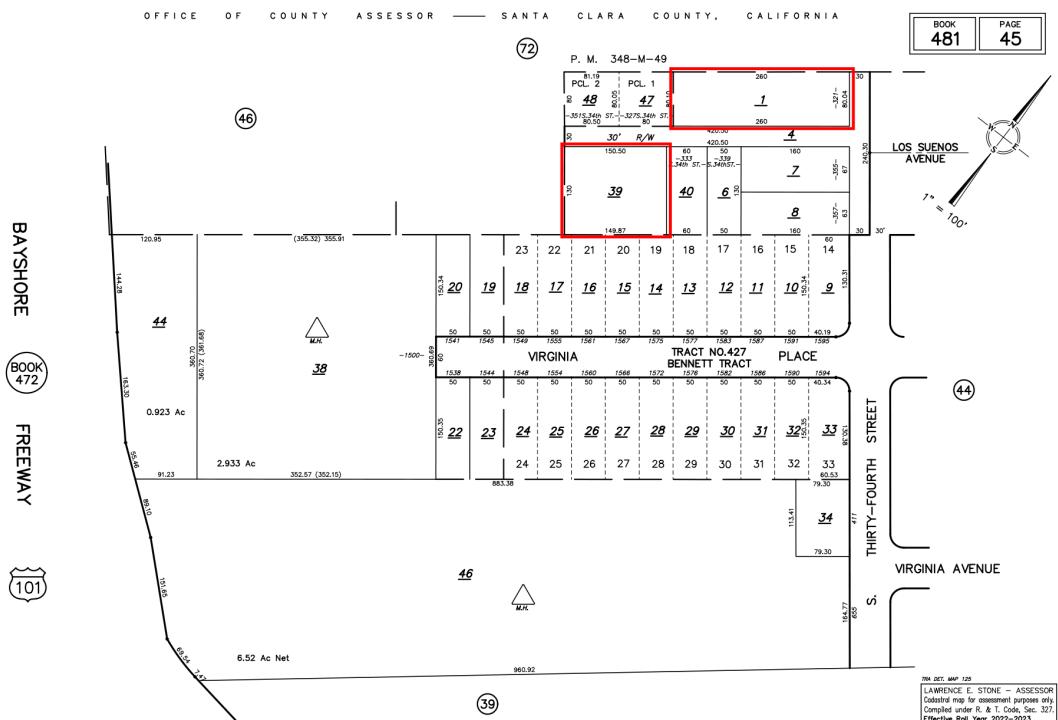
Google. (n.d). [Google Earth image]. Retrieved 19 Dec 2022, from
<https://tinyurl.com/si-si-puede-v2>

B.3 Los Sueños

Table 11
Los Sueños: Property Information

Property Address 331 S. 34th St, San José, CA 95116
Assessor's Parcel Nos. 481-45-001
 481-45-039
Size (acres) 0.482 + 0.449 = 0.93
Date of Last Sale 19 Apr 2010

Figure 15
Los Sueños Plat Map



Santa Clara County Assessor's Office (n.d.). [Plat Map]. Retrieved 23 Dec 2022 from <https://tinyurl.com/los-suenos-plat-map>.

Table 12
Los Sueños: Taxable Amount of Assessed Property

Year	Land	Improvements	Total Assessed Value
2022	\$486,545	\$6,510,874	\$6,997,419
2021	\$477,005	\$6,383,210	\$6,860,215
2020	\$472,114	\$6,317,759	\$6,789,873

Figure 16
Los Sueños Satellite Photo



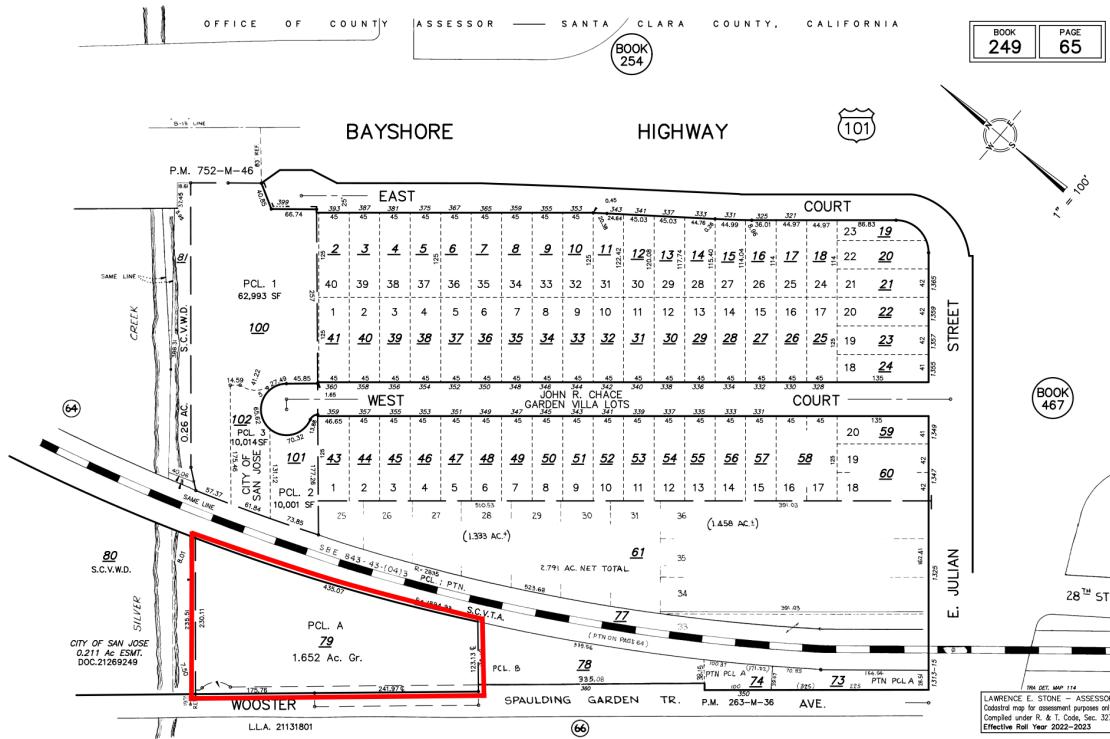
Google. (n.d.). [Google Earth image]. Retrieved 23 Dec 2022 from <https://tinyurl.com/los-suenos-v4>.

B.4 Discovery Prep

Table 13
Discovery Prep: Property Information

Property Address 370 Wooster Ave, San José, CA 95116
Assessor's Parcel No. 249-65-079
Size (acres) 1.652
Date of Last Sale 30 Mar 2011

Figure 17
Discovery Prep Plat Map



Santa Clara County Assessor's Office (n.d.). [Plat Map]. Retrieved 23 Dec 2022 from <https://tinyurl.com/discovery-prep-plat-map>.

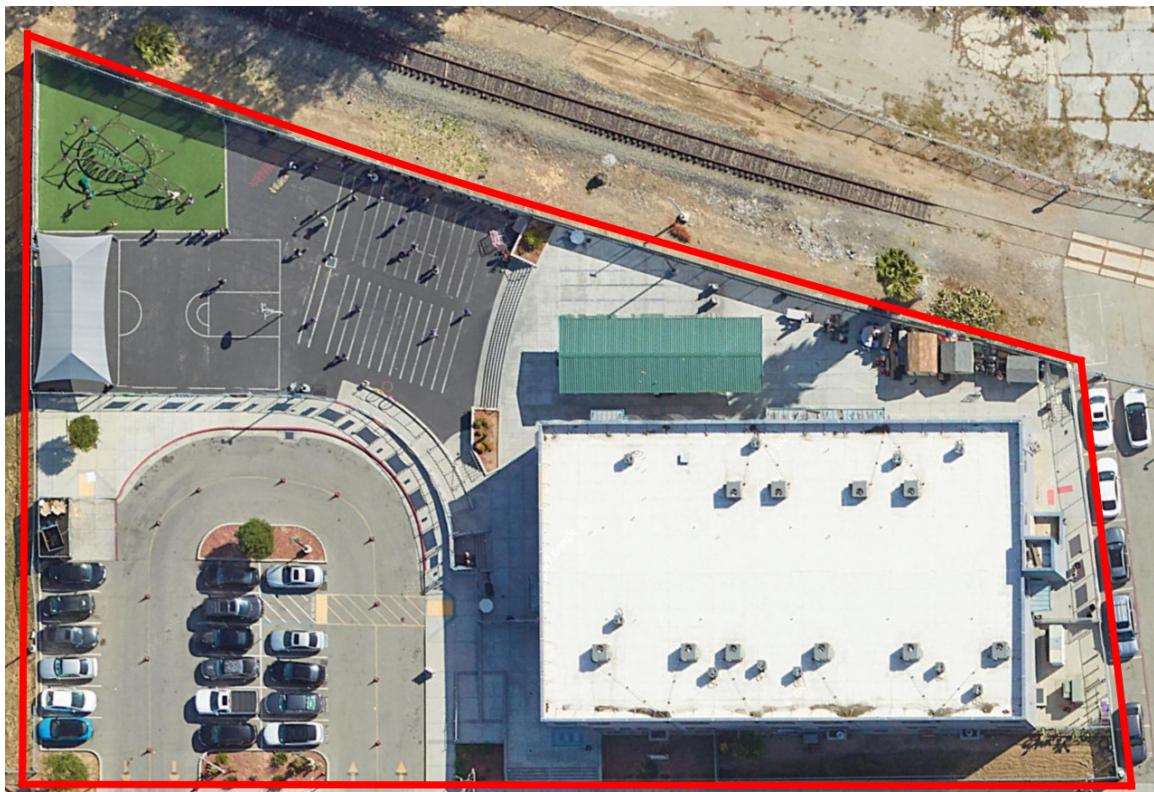
Table 14

Discovery Prep: Taxable Amount of Assessed Property

Year	Land	Improvements	Total Assessed Value
2022	\$2,414,563	\$4,289,318	\$6,703,881
2021	\$2,367,219	\$4,205,214	\$6,572,433
2020	\$2,342,947	\$4,162,095	\$6,505,042

Figure 18

Discovery Prep Satellite Photo



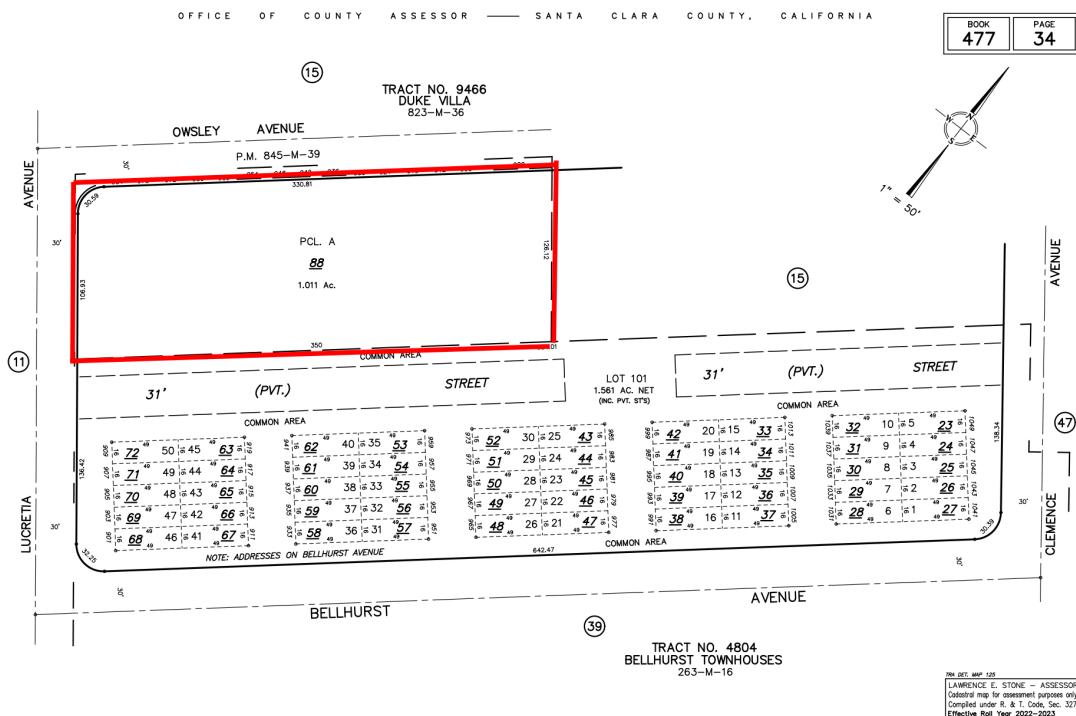
Google. (n.d.). [Google Earth image]. Retrieved 23 Dec 2022 from <https://tinyurl.com/discovery-prep-v2>.

B.5 Mosaic

Table 15
Mosaic: Property Information

Property Address	950 Owsley Ave, San José, CA 95122
Assessor's Parcel No.	477-34-088
Size	1.011ac
Date of Last Sale	24 May 2011

Figure 19
Mosaic Plat Map



Santa Clara County Assessor's Office (n.d.). [Plat Map]. Retrieved 23 Dec 2022 from <https://tinyurl.com/mosaic-plat-map>.

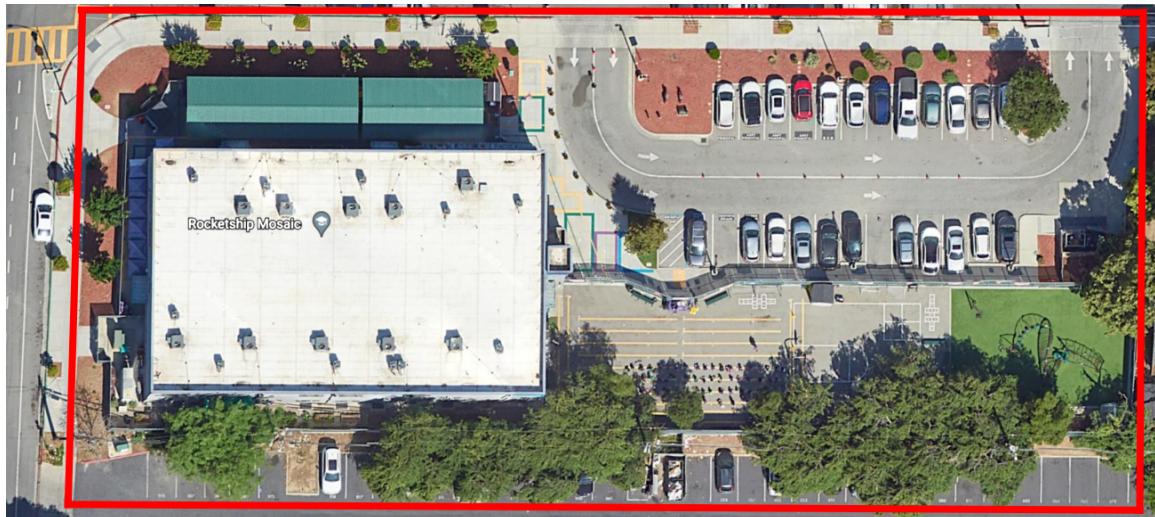
Table 16

Mosaic: Taxable Amount of Assessed Property

Year	Land	Improvements	Total Assessed Value
2022	\$1,851,242	\$4,971,161	\$6,822,403
2021	\$1,814,944	\$4,873,688	\$6,688,632
2020	\$1,796,334	\$4,823,715	\$6,620,049

Figure 20

Mosaic Satellite Photo



Google. (n.d). [Google Earth image]. Retrieved 23 Dec 2022 from <https://tinyurl.com/mosaic-v3>.

B.6 Brilliant Minds

Table 17

Brilliant Minds: Property Information

Property Address	2960 Story Rd, San Jose, CA 95127 2962 Story Rd, San Jose, CA 95127
Assessor's Parcel No.	488-03-003
Size	1.223ac
Date of Last Sale	11 Feb 2014

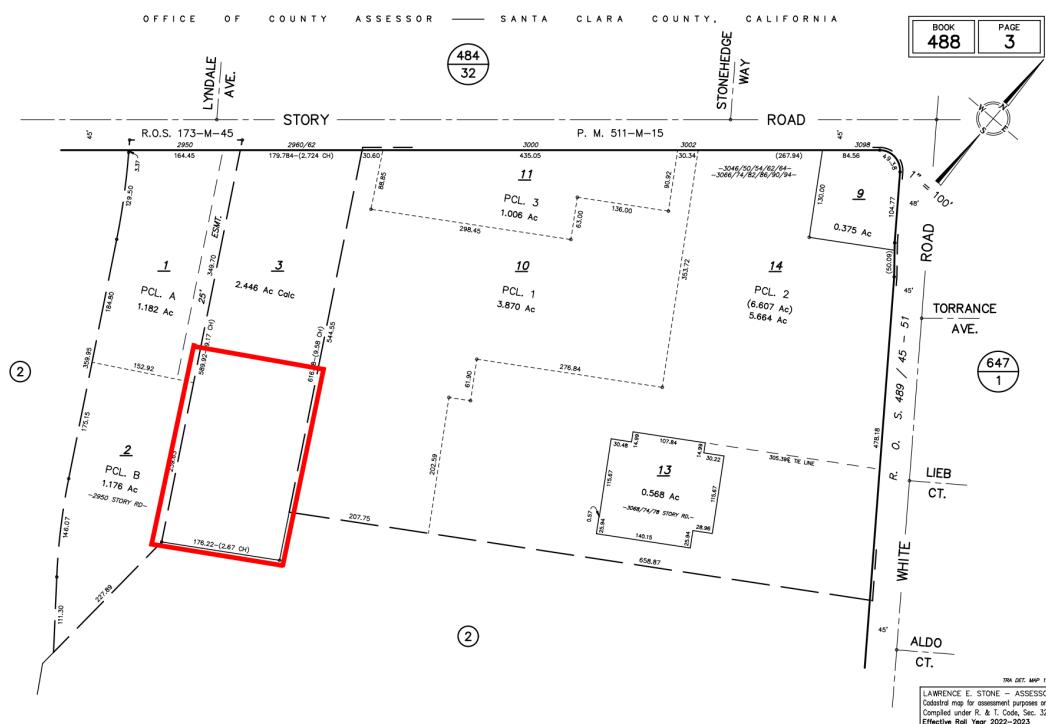
Note: Brilliant Minds occupies a single parcel, along with two churches. It appears to have its own buildings, but shares the single parking lot. The size of the parcel is 2.446ac, and arbitrarily, half has been allocated to Rocketship Brilliant Minds.

Table 18

Brilliant Minds: Taxable Amount of Assessed Property

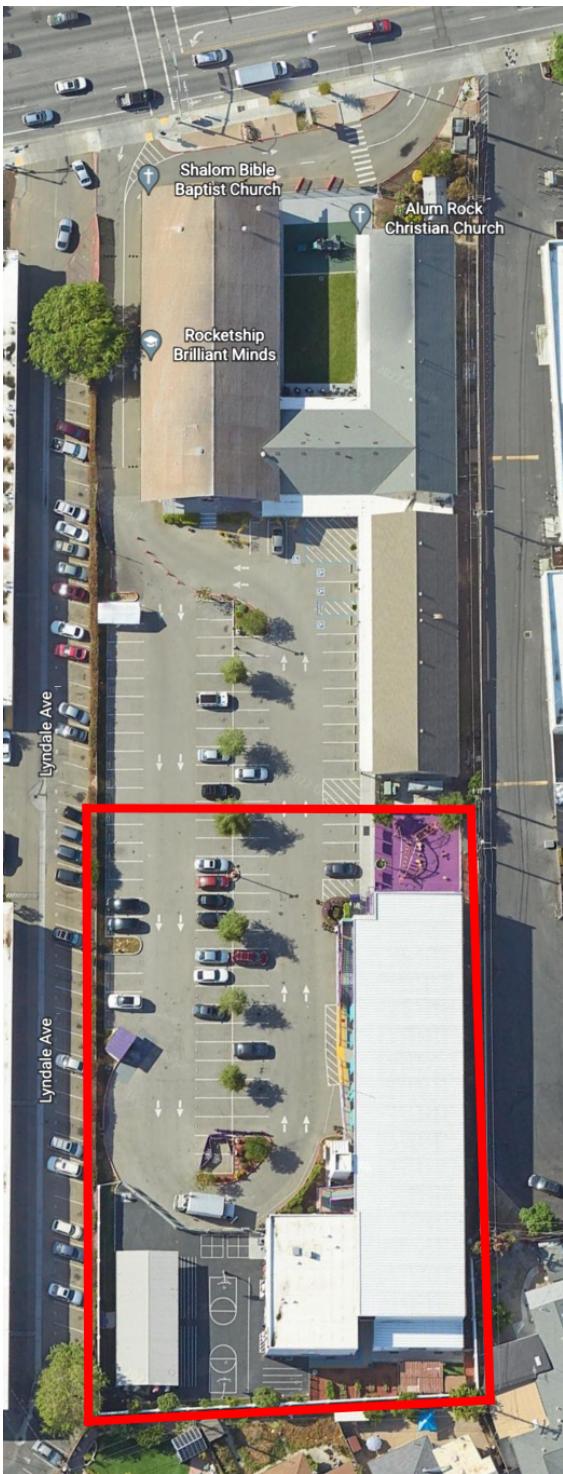
Year	Land	Improvements	Total Assessed Value
2022	\$8,630,187	\$4,218,635	\$12,848,822
2021	\$8,460,968	\$4,135,917	\$12,596,885
2020	\$8,374,212	\$4,093,509	\$12,467,721

Figure 21
Brilliant Minds Plat Map



Santa Clara County Assessor's Office (n.d.). [Plat Map]. Retrieved 23 Dec 2022 from <https://tinyurl.com/brilliant-minds-plat-map>.

Figure 22
Brilliant Minds Satellite Photo



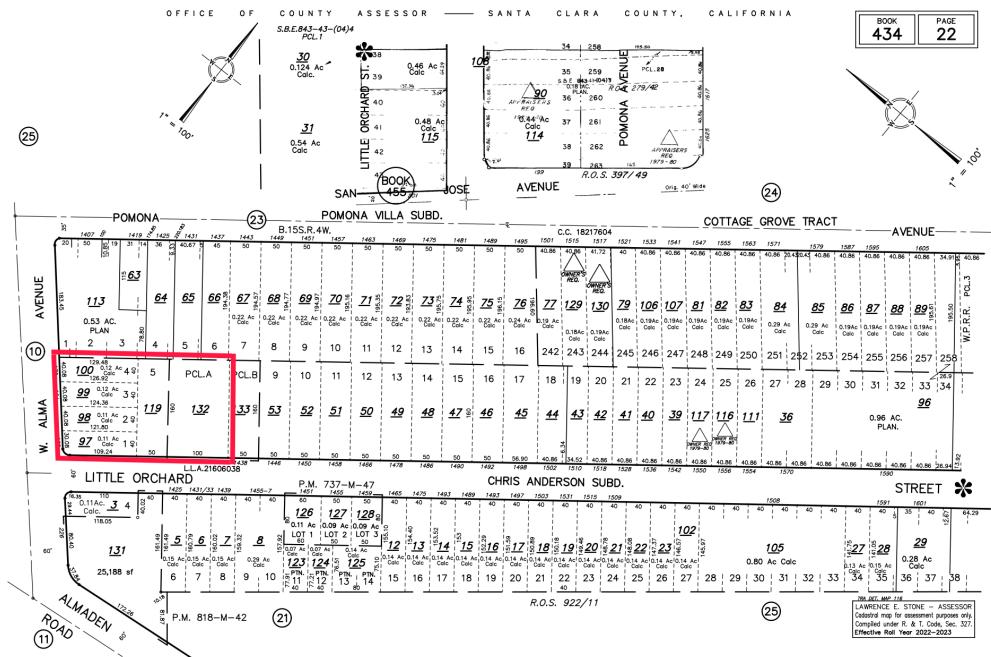
Google. (n.d). [Google Earth image]. Retrieved 23 Dec 2022 from
<https://tinyurl.com/brilliant-minds-v2>.

B.7 Alma Academy

Table 19
Alma Academy: Property Information

Property Address 198 West Alma Ave, San José, CA 95110
Assessor's Parcel No. 434-22-097,098,099,100,119,132
Size 0.551ac
Date of Last Sale 12 Apr 2012

Figure 23
Alma Academy Plat Map



Santa Clara County Assessor's Office (n.d.). [Plat Map]. Retrieved 03 Jan 2023 from <https://tinyurl.com/alma-academy-plat-map-v2>.

Table 20

Alma Academy: Taxable Amount of Assessed Property

Year	Land	Improvements	Total Assessed Value
2022	\$1,615,598	\$0	\$1,615,598
2021	\$1,583,932	\$0	\$1,583,932
2020	\$1,567,686	\$0	\$1,567,686

Note: Rocketship Alma Academy comprises adjacent six parcels, so the assessed value indicated in this table is the sum of all six parcels.

Figure 24

Alma Academy Satellite Photo



Google. (n.d). [Google Earth image]. Retrieved 03 Jan 2023 from <https://tinyurl.com/alma-academy>.

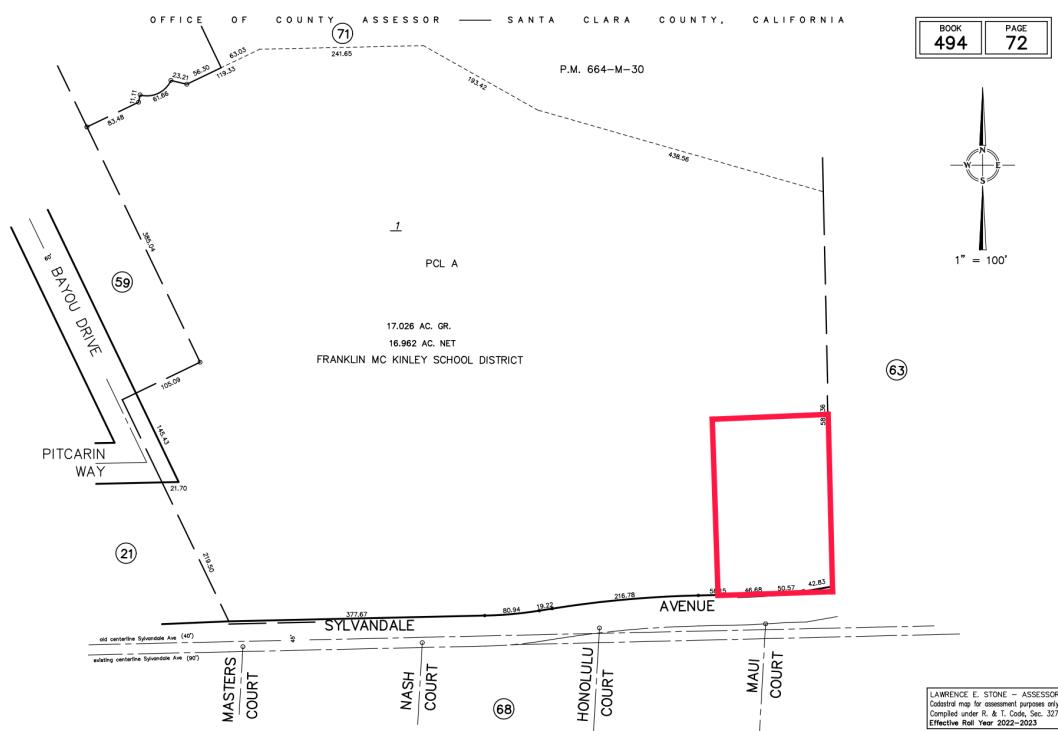
B.8 Spark Academy

Table 21
Spark Academy: Property Information

Property Address	683 Sylvandale Ave San José, CA 95111
Assessor's Parcel No.	[494-72-001]
Size	approx. 1ac
Date of Last Sale	[01 Jun 2012]

Note: Spark Academy has a land lease from the Franklin McKinley School District, so the figures above enclosed in brackets are those of the Franklin McKinley School District.

Figure 25
Spark Academy Plat Map



Santa Clara County Assessor's Office (n.d.). [Plat Map]. Retrieved 07 Jan 2023 from <https://tinyurl.com/spark-academy-plat-map>.

Note: The outline is approximate.

Table 22

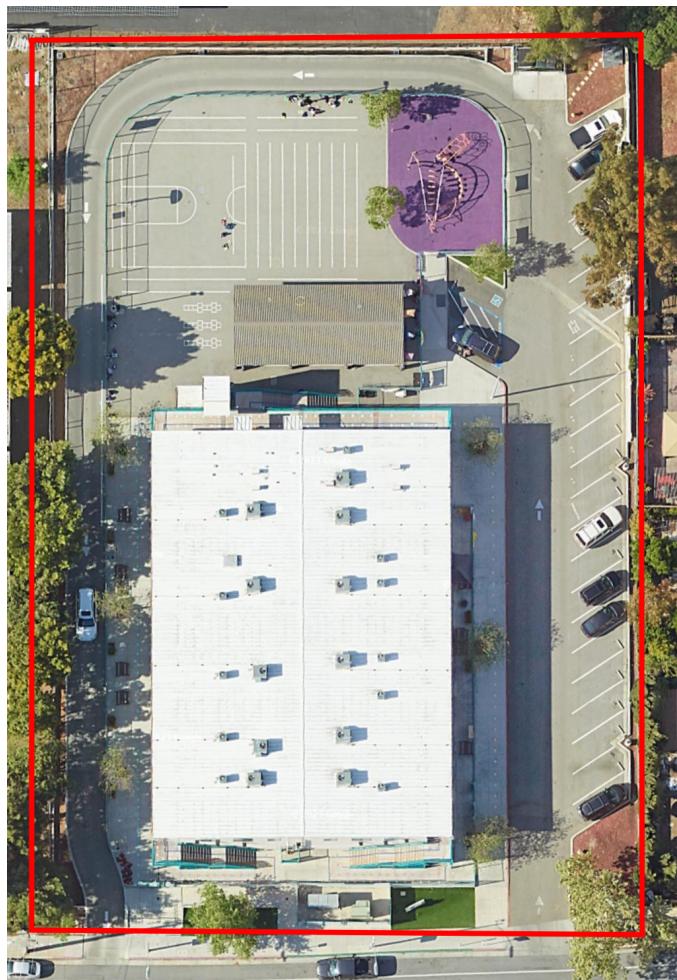
Spark Academy: Taxable Amount of Assessed Property

Year	Land	Improvements	Total Assessed Value
2022	\$0	\$0	
2021	\$0	\$0	
2020	\$0	\$0	

Note: As noted above, Spark Academy leases its land from the Franklin McKinley School District. Since public school districts are exempt from property taxes, all the taxable amounts in this table are listed as \$0.

Figure 26

Spark Academy Satellite Photo



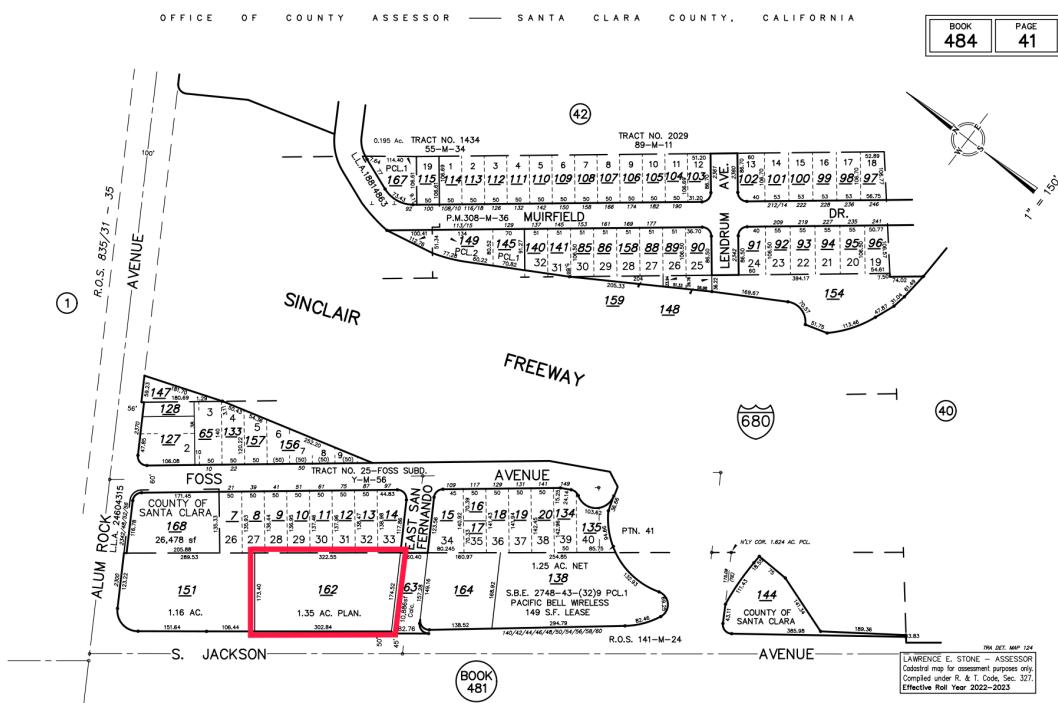
Google. (n.d). [Google Earth image]. Retrieved 07 Jan 2023 from <https://tinyurl.com/spark-academy>.
Note: The outline is approximate.

B.9 Fuerza

Table 23
Fuerza: Property Information

Property Address 70 S. Jackson Ave, San José, CA 95116
Assessor's Parcel No. 484-41-162
Size 1.35ac
Date of Last Sale 02 Feb 2018

Figure 27
Fuerza Plat Map



Santa Clara County Assessor's Office (n.d.). [Plat Map]. Retrieved 07 Jan 2023 from <https://tinyurl.com/fuerza-plat-map>.

Table 24

Fuerza: Taxable Amount of Assessed Property

Year	Land	Improvements	Total Assessed Value
2022	\$2,656,862	\$937,117	\$3,593,979
2021	\$2,604,767	\$918,743	\$3,523,510
2020	\$2,578,059	\$909,323	\$3,487,382

Figure 28

Fuerza Satellite Photo



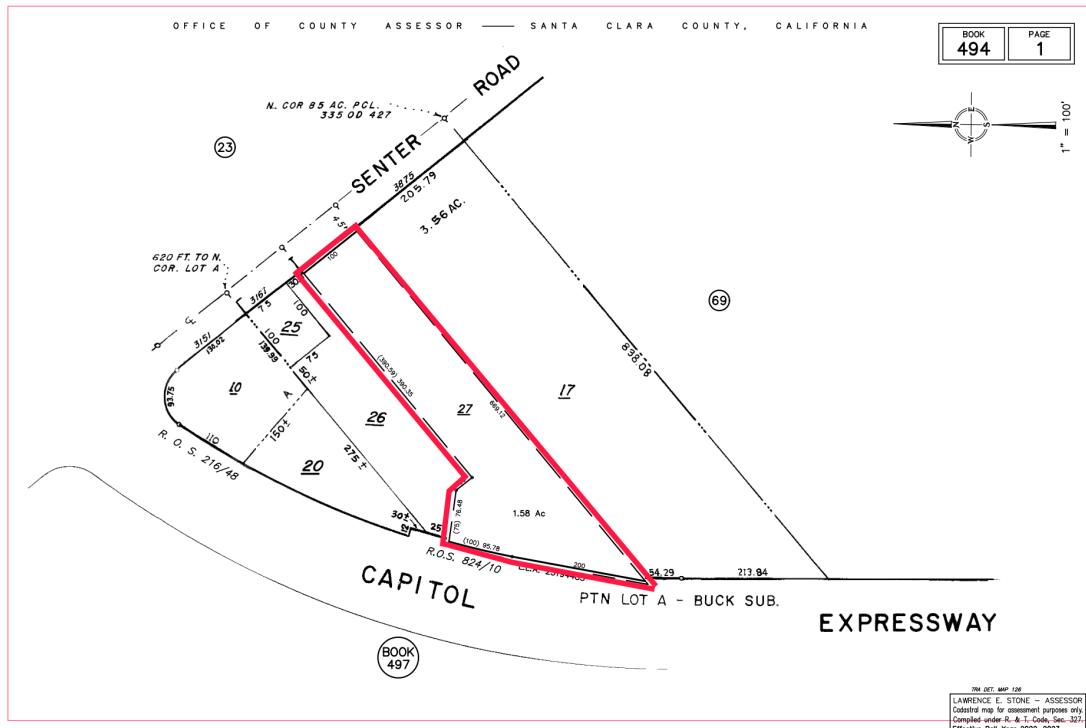
Google. (n.d). [Google Earth image]. Retrieved 07 Jan 2023 from <https://tinyurl.com/fuerza-v2>.

B.10 Rising Stars

Table 25
Rising Stars: Property Information

Property Address 3173 Senter Road, San José, CA 95111
Assessor's Parcel No. 494-01-027
Size 1.58ac
Date of Last Sale 01 Dec 2016

Figure 29
Rising Stars Plat Map



Santa Clara County Assessor's Office (n.d.). [Plat Map]. Retrieved 07 Jan 2023 from <https://tinyurl.com/rising-stars-plat-map>.

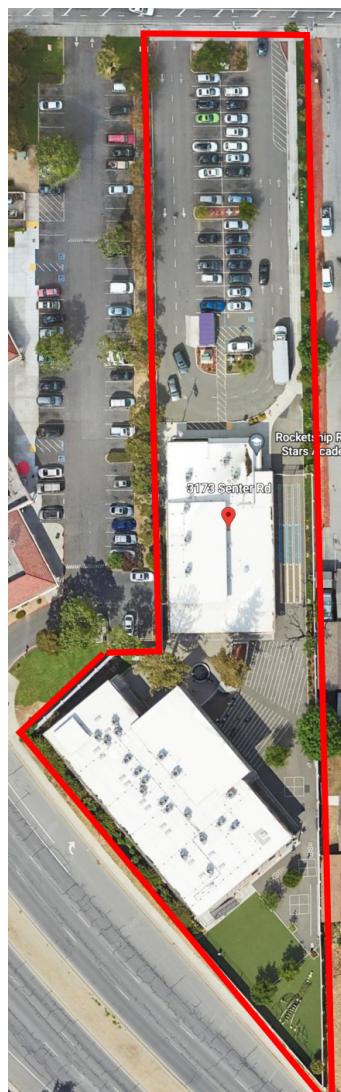
Table 26

Rising Stars: Taxable Amount of Assessed Property

Year	Land	Improvements	Total Assessed Value
2022	\$2,997,872	\$12,139,470	\$15,137,342
2021	\$2,939,091	\$11,901,442	\$12,139,470
2020	\$2,908,955	\$11,779,408	\$14,688,363

Figure 30

Rising Stars Satellite Photo



Google. (n.d). [Google Earth image]. Retrieved 07 Jan 2023 from <https://tinyurl.com/rising-stars-v2>.

Consolidated Financial Summaries (2010-2022)

This appendix presents three summaries of the audited financial statements that Rocketship issues every year (for the preceding school year). Figure 31, *Financial Statements Collected* is a table of the years which were collected and for which summaries are available.

Figure 31
Financial Statements Collected

Type	Years collected	Summarized
Position	2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022	2008-2022
Activities	2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022	2008-2022
Cash Flow	2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022	not yet

Figure 32.
Consolidated Financial Position, Years Ending 2010-2022

	Year ending June 30	2022 Total	2021 Total	2020 Total	2019 Total	2018 Total	2017 Total	ASSETS	Year ending June 30	2016 Total	2015 Total	2014 Total	2013 Total	2012 Total	2011 Total	2010 Total
ASSETS																
CURRENT ASSETS																
Cash and cash equivalents	\$48,532,010	\$47,620,216	\$36,215,753	\$34,519,662	\$38,534,976	\$43,265,177	\$42,457,632	Cash and cash equivalents	\$16,072,631	\$33,058,995	\$14,317,955	\$9,172,892	\$9,369,115	\$7,001,097		
Restricted cash	\$9,720,554	\$4,098,510	\$12,594,596	\$12,487,832	\$11,683,000	\$10,654,074		Restricted cash	\$16,624,930	\$5,136,357	\$3,149,879	\$5,014,779	\$1,927,849	\$9,095,959	\$4,019	
Investments								Investments								
Accounts receivable	\$25,916,680	\$26,926,079	\$18,555,403	\$13,242,884	\$9,533,421	\$8,203,486		Accounts receivable	\$7,899,515	\$8,838,881	\$9,513,318	\$9,880,618	\$7,927,381	\$4,154,307	\$1732,866	
Deferred rent asset								Deferred rent asset								
Grants receivable								Grants receivable								
Note receivable								Note receivable								
Prepaid expenses and deposits	\$6,547,464	\$6,021,009	\$4,024,684	\$3,612,640	\$3,347,495	\$1,388,099		Prepaid expenses and deposits	\$2,497,514	\$1,955,685	\$1,736,015	\$1,583,894	\$407,045	\$145,658	\$218,858	
Total current assets	\$90,731,898	\$94,682,874	\$72,243,436	\$64,048,008	\$64,048,135	\$64,507,077		Total current assets	\$43,088,751	\$29,156,954	\$50,331,811	\$31,390,204	\$19,768,555	\$15,662,039	\$8992,840	
LONG-TERM ASSETS																
Grants receivable								Grants receivable								
Intra-company receivable								Intra-company receivable								
Security deposits	\$58,397	\$49,709	\$28,330	\$26,830	\$25,795	\$25,000		Security deposits								
Accounts receivable	\$9,475	\$19,723						Accounts receivable								
Prepaid expenses and deposits								Prepaid expenses and deposits								
Non-receivable								Non-receivable								
Deferred rent asset								Deferred rent asset								
Total property, plant and equipment net	\$156,980,229	\$161,798,585	\$31,728,685	\$40,800,699	\$103,939,491	\$99,989,879		Total property, plant and equipment net	\$80,243,223	\$63,646,651	\$58,986,771	\$45,821,468	\$42,596,421	\$32,706,668	\$17,347,756	
Total long-term assets	\$157,022,201	\$161,388,017	\$31,758,015	\$40,827,529	\$103,704,268	\$100,086,204		Total long-term assets	\$90,038,697	\$64,365,385	\$59,986,793	\$47,148,945	\$43,179,188	\$32,470,668	\$17,347,756	
Total assets	\$247,754,009	\$256,550,891	\$206,801,451	\$204,875,537	\$167,987,421	\$164,593,281		Total assets	\$133,177,448	\$93,519,319	\$110,298,604	\$78,539,149	\$62,941,743	\$48,132,707	\$26,340,596	
LIABILITIES AND NET ASSETS																
CURRENT LIABILITIES																
Accounts payable and accrued liabilities	\$14,580,021	\$12,379,687	\$8,237,562	\$10,624,213	\$9,728,362	\$6,783,072		Accounts payable and accrued liabilities	\$17,979,337	\$4,971,627	\$6,778,855	\$3,343,879	\$31,149,027	\$3,149,027	\$3,149,027	
Accrued interest								Accrued interest	\$56,835	\$417,127	\$448,391	\$318,293	\$224,902	\$89,014	\$91,999	
Lines of credit								Lines of credit								
Deferred rent liability								Deferred rent liability								
Deferred revenue								Deferred revenue								
Current portion of loans payable	\$5,680,705	\$2,942,053	\$1,593,373	\$1,324,670	\$823,348			Current portion of loans payable	\$1,341,972	\$70,372	\$62,884	\$1,635,767	\$62,590			
Total current liabilities	\$25,423,357	\$24,428,089	\$14,463,178	\$16,098,315	\$14,362,157	\$18,090,763		Total current liabilities	\$17,455,779	\$12,601,378	\$25,846,796	\$12,751,614	\$7,811,754	\$4,426,221	\$2,491,294	
LONG-TERM LIABILITIES																
Security deposits								Security deposits								
Accrued interest								Accrued interest	\$149,196	\$108,256	\$77,459	\$116,982	\$203,554	\$190,407	\$126,494	
Deferred rent liability								Deferred rent liability	\$1,350,949	\$1,185,092	\$631,405	\$164,972				
Intra-company payable								Intra-company payable								
Convertible loans								Convertible loans								
Loan payable	\$182,003,696	\$185,117,172	\$164,694,827	\$159,898,722	\$16,757,229	\$126,930,336		Loans payable	\$91,240,060	\$59,065,346	\$66,936,416	\$9,774,491	\$41,199,336	\$3,268,399	\$19,353,844	
Total long-term liabilities	\$188,888,007	\$193,891,484	\$170,580,979	\$164,781,650	\$132,741,658	\$128,986,355		Total long-term liabilities	\$97,40,205	\$70,355,194	\$71,095,280	\$9,996,325	\$43,202,890	\$34,674,346	\$21,930,338	
Total liabilities	\$214,311,364	\$218,319,573	\$185,184,157	\$180,799,965	\$147,103,815	\$147,057,148		Total liabilities	\$116,195,984	\$82,956,572	\$96,942,076	\$62,657,939	\$81,014,644	\$38,920,567	\$24,121,632	
NET ASSETS																
Unrestricted	\$33,008,787	\$38,214,318	\$23,711,294	\$23,897,122	\$20,883,606	\$16,490,691		Unrestricted	\$16,442,127	\$10,074,280	\$12,089,432	\$13,486,489	\$10,303,466	\$7,629,140	\$2,218,964	
Temporarily restricted	\$43,938,958	\$17,000	\$187,450	\$987,130	\$1,045,472			Temporarily restricted	\$16,993,337	\$488,457	\$1,267,096	\$2,394,721	\$1,569,933	\$1,583,000		
Total net assets	\$33,442,645	\$38,211,318	\$24,617,294	\$24,084,572	\$20,883,606	\$17,735,163		Total net assets	\$36,911,464	\$10,562,747	\$13,395,528	\$18,881,210	\$11,993,099	\$9,212,140	\$2,218,964	

Figure 33
Consolidated Activities, Years Ending 2010-2022

Consolidated Activities										
	Year ending June 30	2022 Total	2021 Total	2020 Total	2019 Total	2018 Total	2017 Total	2016 Total	2015 Total	2014 Total
UNRESTRICTED NET ASSETS										
REVENUES										
LCFF State Aid & Property Tax Revenue	\$68,623,477	\$68,946,084	\$66,915,020	\$63,871,048	\$54,505,286	\$38,756,121	\$36,874,280	\$29,395,472	\$23,505,887	\$23,305,887
Categorical grant revenue										
Property taxes	\$44,700,518	\$41,743,700	\$25,399,299	\$29,960,397	\$24,205,579	\$15,886,120	\$9,388,704	\$7,536,074	\$6,328,495	\$5,422,165
Apportionment revenue	\$29,777,584	\$23,380,609	\$20,884,624	\$21,341,595	\$14,517,185	\$12,324,370	\$11,818,504	\$11,304,499	\$7,039,060	\$2,005,025
Other State revenue	\$32,507,763	\$19,487,194	\$11,965,195	\$12,974,150	\$12,951,147	\$11,057,467	\$9,850,236	\$8,200,216	\$8,107,055	\$8,279,357
Federal revenue	\$1,405,104	\$2,640,117	\$886,809	\$3,938,359	\$7,440,059	\$2,766,145	\$385,359	\$498,053	\$330,206	\$246,867
Other local revenue	\$7,075,182	\$5,798,443	\$6,322,553	\$5,461,149	\$8,006,358	\$8,197,731	\$8,141,627	\$8,251,065	\$7,140,065	\$6,361,881
Contributions	\$1,000,000	\$187,450	\$799,680	\$670,538	\$264,170	\$299,290	\$851,995	\$2,780,203	\$1,422,347	\$3,848,403
Amounts released from restriction	\$184,106,428	\$162,896,147	\$142,562,550	\$138,346,378	\$122,297,352	\$107,880,532	\$88,062,499	\$67,909,435	\$56,454,130	\$40,098,154
Total unrestricted revenues										
EXPENSES										
Program expenses										
Educational programs	\$132,441,662	\$101,402,187	\$98,929,764	\$92,810,139	\$77,408,214	\$70,573,394	\$55,869,661	\$46,219,562	\$36,985,459	\$22,280,859
Site supports and program development	\$33,483,700	\$29,008,887	\$26,861,068		\$27,977,604	\$20,076,599	\$16,955,433	\$16,905,996	\$10,775,327	\$13,130,262
Program development and expansion										
Site supports										
Supporting services										
Administration and general	\$22,879,450	\$17,547,189	\$16,605,399	\$21,743,194	\$27,685,198	\$9,280,970	\$5,748,392	\$4,933,874	\$3,959,732	\$3,918,745
Fundraising	\$307,147	\$440,860	\$345,147	\$281,801						
Total supporting services	\$23,385,597	\$17,988,049	\$16,951,546	\$22,024,995	\$27,685,198	\$25,824,991	\$21,889,307	\$20,865,728	\$14,694,072	\$10,293,123
Total expenses	\$189,311,959	\$148,399,123	\$142,744,378	\$134,345,732	\$118,891,567	\$101,831,968	\$81,694,652	\$68,108,869	\$57,851,187	\$36,747,931
Change in unrestricted net assets	-\$5,205,531	\$14,497,024	\$14,497,024	\$4,090,646	\$3,405,785	\$48,564	\$6,367,847	-\$199,434	\$1,397,057	\$1,123,233
TEMPORARILY RESTRICTED NET ASSETS										
Amounts released from restriction	-\$17,000	\$900,000	-\$187,450	\$799,680	-\$670,638	-\$264,170	-\$299,290	\$851,995	-\$278,699	\$1,127,625
Contributions	\$333,858	\$17,000	\$900,000							
Change in temporarily restricted net assets	\$119,858	\$883,000	\$112,550	\$799,680	-\$58,342	\$56,135	\$870	-\$78,699	\$2,427,235	\$2,247,235
Change in net assets	-\$4,788,673	\$13,614,024	\$532,722	\$3,200,966	\$3,347,443	\$6,004,699	\$6,368,717	-\$98,063	\$2,524,682	\$3,948,111
Beginning net assets	\$38,231,318	\$24,617,294	\$24,084,572	\$20,883,606	\$17,535,163	\$16,931,464	\$10,562,747	\$15,881,210	\$11,933,099	\$9,212,140
Ending net assets	\$33,442,645	\$38,231,318	\$24,617,294	\$24,084,572	\$20,883,606	\$17,536,163	\$16,931,464	\$10,562,747	\$13,356,528	\$15,881,210

Index

- Alum Rock, 42
- Billionaires Boys Club, 24
- Broad, Eli, 24
- Brown v. Board of Education, 18–20
- charter schools, portfolio of, 40
- politics, definition of, 1

Colophon

Two versions of this dissertation are available. The contents of both are identical; only the formatting differs.

1. <https://leonora.org>

This version, the readable version, has been formatted according to standard typographic practice which emphasizes readability, and it is hoped, good taste and elegance.

2. <https://sjsu.edu>

This version, the official, submitted version, has been formatted to meet the SJSU Ed.D. doctoral dissertation guidelines. You should read this version only under duress.

This dissertation was created nearly entirely with free, open source programs.⁵⁵ The typefaces, 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 numerals 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 the family doesn't include display sizes and doesn'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.

⁵⁵Two closed source, proprietary programs were used to manipulate PDF files, themselves proprietary programs until recently. These programs could have been replaced with FOSS programs, but the results would not have been as high quality.

It is, however, awkward to use and hard to learn. Fortunately, Leslie Lamport wrapped TeX in a macro system, L^AT_EX, which was orders of magnitude easier to use than TeX itself. L^AT_EX 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 only just corrected some minor typos.)



Wilson's muse is Robert Bringhurst, author of *The Elements of Typographic Style*, which some consider to be the definitive book on typography and book design. It is certainly the most elegant. The package `memoir` would undoubtedly meet with Bringhurst's approval. The class `memoir` provides in one package nearly everything a person needs to produce "beautiful books" (Knuth's words). Although creating a bibliography, glossary, and an index are possible in `memoir`, specialized packages are normally used instead of the built-in ones supplied by `memoir`.



Zotero is a program to manage and maintain a bibliographic database and to provide citations on demand. It, along with the text editor GNU Emacs ("an operating system disguised as an editor") and the package `refTeX`, cooperate with `memoir` to provide a complete system for writing scholarly papers, theses, reports, and dissertation.



All of these programs run on Linux, a version of Unix using a particular distribution, Arch Linux, one of many. It is notable that GNU Linux, GNU Emacs, `TEX` and `LATEX` are all programs that are decades old, have never been replaced or superseded, are constantly being improved, and are actively used. They share a common set of characteristics: their fundamental architecture is sound, extensibility is a core feature, and they and thousands of specialized packages are freely available. I predict that iPhones will be the faintest of memories when GNU Unix, GNU Emacs, and `LATEX` start to fade from view.