



GETTING DOWN — TO FACTS II —

Technical Report

Aims and Purposes of a State Schooling System: The Case of California

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About: The *Getting Down to Facts* project seeks to create a common evidence base for understanding the current state of California school systems and lay the foundation for substantive conversations about what education policies should be sustained and what might be improved to ensure increased opportunity and success for all students in California in the decades ahead. *Getting Down to Facts II* follows approximately a decade after the first *Getting Down to Facts* effort in 2007. This technical report is one of 36 in the set of *Getting Down to Facts II* studies that cover four main areas related to state education policy: student success, governance, personnel, and funding.

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Policy Analysis for California Education

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Evaluating a school system requires benchmarks of success. In order to know whether it is successful we need to know not only what *is* happening, but what *should be* happening. This paper interprets, and comments on, the aims California has for its public school system, and offers ways of thinking about the evidence in the light of those aims, and about how to set goals over the coming decade.

California's constitution, adopted in 1879, requires that the state provide a system of public education for the purpose of the "general diffusion of knowledge and intelligence" and explicitly mentions the promotion of "intellectual, scientific, moral, and agricultural improvement." The constitutional text does not provide much detail about the content or distribution of education. These important aims are fleshed out in California law.

This paper examines how California defines what students will learn and the aims for how that learning will be distributed. We analyze the official state curricular standards to understand the state's aims for learning, and we examine aspirational statements as well as the financing system for underlying assumptions about goals for the distribution of learning. We continue by observing that the metrics used to measure the effects of the education system are highly imperfect, but should not be discarded. In conclusion we explore how the State could devise a set of goals that it would be reasonable to hold itself to over the coming decade, in the light of the evidence about where the facts stand today.

Resources are never unlimited and the technological means for achieving desired outcomes are never perfect. So before starting it is important to note that decision-makers about and within the system inevitably operate under *historical constraints* influenced by the limitations of the capacities the system has developed up to now, and *political constraints* influenced by the conflicting goals that elected officials and other political forces have. Further, State public school systems are part of a federated system, with local school districts holding considerable power and the national Department of Education exercising influence. California's decisions interact with other decisions to produce their effects.

Beyond the political difficulties generated by a complex federal structure of education are a deeper set of social and economic complications. Think about some of the conditions which inhibit the ability of school systems to achieve ideal outcomes. Among rich democracies the US has a relatively very high rate of children living in poverty; relative poverty makes it more difficult for children to learn, through numerous causal pathways. No country with high poverty rates educates its poor children to anything close to the level of its wealthier children: we cannot look to countries like Finland, or Singapore, for educational technologies that will transform education for our disadvantaged students. The U.S. lacks universal health provision, and those who most lack it are poorer students and families; un-prevented and untreated health conditions make school absence more likely, and make it more difficult for students to learn even when they are in school. Long travel distances for students and for teachers in non-urban centers exact both financial and psychic costs. California could, and does, mitigate some of these background conditions to some extent, but they lie in the background, limiting the capacity of the school system.

Ethically responsible educational decision-makers have two different kinds of aims: to set the content of education – the *educational goods* – and to determine how to *distribute* educational opportunities to learn this content.

First, they have aims regarding the kinds of knowledge, skills, dispositions and attitudes –the educational goods – that the education system should be developing in future adults. They are concerned about the content of the educational opportunities they create for students, and the capabilities that the students will have when they become adults. These aims are often contested in democratic societies: some people, for example, will place more emphasis on capabilities that support community cohesion whereas others might place more emphasis on those that will better promote economic development. In the current section my job will be to discern the expectations that the State currently has for the content of educational opportunities.

Second, they have aims about how those opportunities and capabilities should ultimately be distributed. To illustrate consider three contrasting aims about distribution. Some argue that all that matters when it comes to distribution is that everyone have an adequate education: adequate, for example, to get and retain a job that pays a living wage.¹ Others argue that the system should aim to ensure that everyone enters adulthood able to compete in the economy on an equal basis – having exactly the same level of educational goods.² Others think that the government should distribute educational opportunities in the way that maximally contributes to economic growth -- to give a concrete example, in the post-WWII UK, many people believed the economy was best served by an education system that consigned a large proportion of the population to an education in which they had limited opportunities for academic development, but learned how to be obedient and loyal low-skilled workers. How should we establish what the aims are of the current education system in California? In common with other states, California does not have a stand-alone statement of the aims of public education or of the aims of the curricular standards it has adopted for its public schools. And while litigation around educational cases in California tends to adopt a language of adequacy, the State does not have a concrete statement of distributive aims, or an articulation of the constraints that the state faces. Concerning educational goods, at least, contrast with the UK national curriculum, built into the introduction of which is a brief philosophical statement of aims:

3.1

The national curriculum provides pupils with an introduction to the essential knowledge they need to be educated citizens. It introduces pupils to the best that has been thought and said, and helps engender an appreciation of human creativity and achievement.³

3.2

The national curriculum is just one element in the education of every child. There is time and space in the school day and in each week, term and year to range beyond the national curriculum specifications. The national curriculum provides an outline of core knowledge around which teachers can develop exciting and stimulating lessons to

promote the development of pupils' knowledge, understanding and skills as part of the wider school curriculum.

Although the State has not made a standalone statement of what knowledge, attitudes and dispositions the education system, or of how they should be distributed, the Department of Education has, over time, adopted well-articulated and detailed standards for each subject area that reflect assumptions about what educational goods should be fostered, and, of course, it has a financing system that reflects certain distributive values. Each of the documents containing the subject-specific standards, furthermore, contains explicit justifications for the detailed standards that have been adopted, which might, in term, guide instructional practice. And Department of Education officials make speeches and write other documents that contain assumptions about how educational goods should be distributed.

Our method for discerning the State's aims for the education system, then, is as follows:

Educational Goods: We examined the standards, documents, and looked at the assumptions behind the standards and the explicit justifications contained within the documents.

Distribution: We looked at official statements about equity, and the design of programs that are said to promote equity, as well as at the structure of the school finance system.

Educational Goods

Politicians regularly invoke the imperative of economic competition in justifying both government support for, and specific regulation of, the education system. Take Florida Governor Rick Scott: "If I'm going to take money from a citizen to put into education then I'm going to take that money to create jobs. So I want that money to go to degrees where people can get jobs in this state. Is it a vital interest of the state to have more anthropologists? I don't think so." Or US Senator Marco Rubio's infamous comment during the 2015-16 primary campaign in defense of vocational education which explicitly, if rather muddle-headedly, ties education to economic success: "Welders make more money than philosophers. We need more welders and less philosophers."⁴ So educational theorists and many citizens frequently worry that the 'standardization of education' that has occurred in the past three decades has tilted the education system which, they think, should be multifaceted, and directed toward the broader interests of students and the society they inhabit, unduly toward the interests of the economy, narrowly conceived. Education, they fear, has become simply a training ground for workers in a globalized economy.

The concern about undue attention to economic productivity is underwritten by two thoughts.

The first is simply that the economy is not what is fundamentally valuable. The economy, and its productivity, are valuable insofar as they serve more fundamental human ends: what really matters is that we flourish as individuals and live well together. If we could gain greater economic growth only at the cost of considerably worse quality of life for a significant fraction of the population, it would be a mistake to do so.

The second is that, even if economic productivity were all that matters, politicians who set educational standards often get wrong what the economy needs. Economies are dynamic, and if we focus on developing narrow, task-specific, skills, as employers might immediately demand, we risk long term growth for the sake of short-term gains. Imagine, for example, an education system in the late 1970s which was concerned with the immediate needs of the economy. It would provide extensive training in keyboard skills and shorthand for students who were expected not to enter professions needing complex cognitive skills. Within a decade, thanks to technical change, the position of ‘typist’ had been all but eliminated, and all professionals needed their own keyboard skills.⁵ Employers, in fact, say they value many non-task-specific skills, what Economists and Psychologists imprecisely refer to as non-cognitive skills, and there is considerable evidence that, in fact, hiring decisions reflect that valuing.⁶ But when politicians, at least in their rhetoric, emphasize economic productivity, *they often do* seem to be concerned primarily with technical and task-specific training.

The concern that the education system is tilted too much in favor of the short term needs of the economy may have some truth to it. But, if so, neither the stated rationales for, nor the details of, the California state standards, reflect such thinking. It is worth quoting the Quality Schooling Framework at some length:

- An Expanded View of Student Success
 - Despite an emerging consensus that definitions of a quality education should support an expanded view of success for every student (the “whole child”), much variation still exists in what we want for our public schools. (2) Nonetheless, most stakeholders agree that intellectual, social, and emotional development are worthy goals for public education. (3) A number of educational stakeholders also believe civic development should remain a central purpose for public schools. (4)
- Intellectual development refers to the academic skills and knowledge we want all students to acquire as a result of their schooling. Critical thinking and problem solving are central to most intellectual growth models (e.g., Blooms Taxonomy, Marzano’s New Taxonomy of Educational Objectives). Emerging research indicates that intellectual development is also influenced by intellectual attitudes, including curiosity and a drive to learn. (5) In California, desired intellectual skills and knowledge are clearly defined in the new Common Core State Standards.
- Social and emotional development refers to positive social behaviors such as respect for others, ethical concern, and the ability to work in teams. It also refers to individual characteristics and outcomes such as motivation, self-discipline, empathy, confidence, and independence. Research shows that social and emotional development plays an important role in improving students’ academic performance and lifelong learning. Positive social and emotional development also influences physical health. (6) Discussions of possible outcomes related to emotional development are often contentious, but this does not diminish the importance of positive social and emotional development for individual students and for society. (7)
- Civic development has been a consistent topic in debates about the purpose of education in the United States. Civic development outcomes are associated with

responsible citizenship at the local, state, national and now often global levels. Despite tensions over the specific content of civic instruction, there is a general consensus that civic development is about more than voting—that it is closely aligned with critical thinking capacity and social problem solving. Educational stakeholders in a UCLA study about the value of education in California emphasized the role of public schools in promoting civic engagement and leadership in local communities.

So, even in the framework statement, the State asserts the importance to the educational system of goals that go far beyond economic productivity including: social and emotional development, part of which are ethical concern and respect for others; civic development; empathy and independence.

Are these the right set of capacities? Elsewhere Brighthouse et. al. (2018)⁷ argue that students should develop the capacities for:

Economic productivity

Personal Autonomy

Democratic Competence

Healthy Personal Relationships

Treating Others as Equals

Personal Fulfillment

Our analysis below indicates that the values invoked by the justificatory claims in the State Standards documents map very well onto the Brighthouse et al framework.

Exactly what each of the capacities in the above list involves is reasonably contested to some extent. Take democratic competence: some theorists think that democratically competence requires considerable understanding of political and economic issues, and demanding cognitive and affective abilities, including, for example, the ability to fully understand the arguments of those with whom one disagrees. For other theorists, it requires not much more than a strong disposition to abide by collective decisions, and to tolerate others with whom one disagrees.⁸ Similarly, some think of autonomy as requiring extensive self-knowledge, and rich understanding of a full array of options, whereas others think of it as merely requiring the ability to make and act on independent choices. And, of course, there are continuing debates about what economic productivity requires, and agreement that what it requires changes over time. But we should not overstate the extent of disagreement. The concepts are contested, but there is a lot of overlap among those who disagree about each. Showing *beyond reasonable doubt* that the above list of capacities captures reasonably well the values implicit in the standards documents would be difficult. First, the curriculum is not organized by capacities, but by fairly traditional subject areas – English Language Arts, Mathematics, Science, History and Social Studies, Physical Education, etc. These capacities are, as they must be, taught *across the curriculum*, not *within a particular subject area* (although some subject areas sensibly emphasize some capacities more than others). We cite several

subject areas for each capacity. Second, the reader has to trust that we are not simply cherry-picking language from the documents to suit our purposes. We have therefore quoted reasonably extensively, and remind the reader that the documents are publicly available. Third, showing beyond reasonable doubt that the actual standards fit these categories would require detailed consideration of the year-by-year standards. This would make for tedious and repetitive reading. Again, we emphasize that the standards documents are readily publicly available, and ask the reader to read the detailed standards.

Capacity for Economic Productivity

Everyone who is not seriously disabled, and even some who are, needs to be able to participate effectively in the economy. Some people will not need to work for an income to meet their needs, but we cannot identify most of them in advance, and, anyway, for most of them, the educational goods needed to become economically productive will serve them well in other ways. Even those with independent sources of income usually benefit from the kinds of capabilities that labor markets reward. Developing individuals' economic productivity – for example through enhancing their cognitive skills – is also in the interest of the broader society: the increased economic capability of the educated person increases the aggregate stock of human capital that society can harness to the benefit of all. Of course, this capacity only benefits the agent, and others, if it is deployed, so alongside the capacity educators should inculcate a disposition to work. As with other dispositions, the educator should exercise and encourage moderation. In a flourishing life the disposition to work is balanced by other dispositions (to engage in leisure activities, for example, or to devote oneself to friends and family).

The English Language Arts curriculum document claims that students must become “lifelong learners and have the skills and knowledge necessary to be ready to assume their position in our global economy,” and must be able to “use research and technology to sift through the staggering amount of information available and engage in collaborative conversations, sharing and reforming viewpoints,” and to “use technology and digital media strategically and capably.” The Mathematics standards, which provide less of a rationale for learning the subject than most documents, similarly claim that “our students will be positioned to compete successfully in the global economy”. Productivity is, unsurprisingly, a central concern of Career and Technical Education: students are expected to learn how to “apply technology to enhance productivity,” “model integrity, ethical leadership, and effective management” and “work productively in teams while integrating cultural and global competence.” Health Education emphasized that they become “productive members of their communities,” a phrase that suggests an appropriately broad understanding of productivity. Part of the rationale for teaching World Languages is the need for “success in a technologically driven global economy and increase intercultural understanding and the benefits derived from collaborative international efforts.” The rationale for the Model School Library standards includes the aim of producing a “technology-competent workforce’. The MSL standards refer to helping “students prepare for success in the hypercompetitive global economy that is powered by information and knowledge” and helping “students to learn and work with twenty-first century skills and apply responsible research practices, be respectful to others when using

digital devices, and continue to grow as lifelong learners.” In the Visual and Performing Arts students “develop competencies and creative skills in problem solving, communication, and management of time and resources that contribute to lifelong learning and career skills.”

Capacity for Personal Autonomy

Children benefit from the ability to make and act on well-informed and well thought-out judgments about both how to live, and what to do in their everyday lives. For people to flourish they need to engage in activities and relationships that reflect their sense of who they are and what matters to them. So, for example, some people may flourish within the constraints laid down by the religious strictures of their parents while others may be stunted by those same requirements. Knowledge of other religious views and non-religious views supports flourishing by providing the opportunity for the individual to choose alternatives, or aspects of them. Even with knowledge of the alternatives, the self-knowledge, habits of mind, and strength of character to make the appropriate alternative choice are also needed. The same logic applies to choice of occupation. Some children find themselves under very heavy parental pressure to pursue a particular occupational path. The non-autonomous person may follow the path chosen by her parent because of lack of knowledge of alternatives or because of lack of self-knowledge. The autonomous person, by contrast, will have sufficient knowledge of the relevant variables and sufficient fortitude to make the parental pressure a small influence on her choice. Whether, ultimately, she chooses for or against will depend on her own, independent, judgment of the fit between the occupation and her interests. Again, the dispositions associated with autonomy should be inculcated, but with moderation. The extent to which people benefit from reflection on major questions such as what values to adopt, and even minor questions like how to spend one’s leisure time, varies considerably between individuals in ways that educators cannot anticipate.

Almost all of the standards documents are concerned with some aspect of cultivating a capacity for autonomy. English Language Arts emphasizes that learning ‘enlarges experience’ and “builds creativity and innovation, critical thinking and problem solving, collaboration, and communication.’ Students must “demonstrate cogent reasoning and use evidence in a way that is essential to both private deliberation and responsible citizenship in a democratic republic” and must also “demonstrate independence.” ELA, taught well, enables students to become “self-directed learners, effectively seeking out and using resources to assist them.” The mathematics standards emphasize the importance of learning how to “reason abstractly and quantitatively” and “make sense of problems and persevere in solving them.” Students are expected to “analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt.” Career Technical Education (CTE) is expected to prepare students to “communicate clearly, effectively, and with reason,” “utilize critical thinking to make sense of problems and persevere in solving them” and “employ valid and reliable research strategies.” In Health students should learn to “make informed decisions, modify behaviors, and change social conditions.” The Health standards also consistently emphasize critical thinking and problem solving and the underlying traits needed for success in those activities: the “ability to appropriately convey and receive information, beliefs, and emotions is a skill that enables

students to manage risk, conflict, and differences,” “self-directed learning” and “acceptance of personal responsibility,” and in Physical Education students “expand their capabilities for independent learning; and they examine practices that allow for sound decision making to enhance successful participation in movement activities.” The Visual and Performing Arts standards say that “Achievement in the arts cultivates essential skills, such as problem solving, creative thinking, effective planning, time management, teamwork, effective communication, and an understanding of technology.” As with many of the other standards History-Social Science emphasizes critical thinking skills, but also exposes students to the “range and continuity of human experience” and introduces “the concepts of courage, self-control, justice, heroism, leadership, deliberation, and individual responsibility.” The Model School Library standards expect teachers to foster “the skills to effectively access, evaluate, use, and integrate information into their lives” and says that “Students who understand systems of text organization are better equipped to use the Internet as it is today. Most notably, they expect worthy resources to have order. This may drive them to probe complex web sites.”

Capacity for Democratic Competence

In a democratic society, citizens benefit from the ability to participate in their political institutions both to press their own interests and to give due weight to the legitimate interests of others. Educating a child to have the knowledge, skills, and personal attributes that enable and incline her to become an effective and morally decent participant in social life and political processes benefits both her and others. The US electoral system, with its numerous levels of government, frequent elections, and weak political parties, demands a great deal of citizens. Many policy issues are hard for citizens to evaluate without a good understanding of the way the institutions work, and of the possible side effects of any proposed reform. California’s frequent, numerous and detailed ballot propositions similarly expect a great deal of informational acquisition and evaluation from voters. Exactly what the capacity requires depends on settling whether obedience to the law suffices for good citizenship or whether actual engagement in the political process is required, whether competence sometimes involves challenging and breaking the law and many other issues. But on any account, *being able to engage* is required, and acquiring the capacity for democratic competence is important.

The ELA standards aim to enable students to “use research and technology to sift through the staggering amount of information available and engage in collaborative conversations, sharing and reforming viewpoints” and demonstrate “cogent reasoning and use evidence in a way that is essential to both private deliberation and responsible citizenship in a democratic republic.” The Quality Schooling Framework observes that “California academic standards for English Language Arts emphasize careful reading of non-fiction texts. Rather than creating two separate learning initiatives, communities wishing to emphasize civic engagement can ask students to read ballot initiatives and op-ed pieces as they prepare to meet English Language Arts standards.” The Math curriculum asserts that “standards for higher mathematics reflect the knowledge and skills that are necessary to prepare students for... productive citizenship” and the QSF observes that “schools can look for ways to help students apply mathematical or scientific knowledge to solve practical social or public health challenges. Meeting these standards not only contributes to a student’s cognitive development, but can

also prepare him or her to be an informed and active citizen.” The CTE standards expect students to learn how to “communicate clearly, effectively, and with reason”, “act as a responsible citizen in the workplace and the community” and “understand the environmental, social, and economic impacts of decisions.” Health students learn habits needed to be “responsible and productive citizens who help ensure that their community is kept healthy, safe, and secure.”

History-Social Science curriculum is, understandably, where democratic competence is emphasized most. Teachers are expected to use the curriculum to “convey the rights and obligations of citizenship” and develop “historical empathy” which “reinforces the concept of civic behavior: how we interact respectfully with each other, following rules, and respecting the rights of others.” Students should learn “the role of citizenship in the promotion of rules and laws; and the consequences for people who violate rules and laws” and the “importance of public virtue and the role of citizens, including how to participate in a classroom, in the community, and in civic life.”

Capacity for Healthy Personal Relationships

Recent empirical literature confirms the common sense view that successful personal relationships are at the center of a happy life. The same is likely true of a flourishing life. For most of us, flourishing requires a variety of relationships, including lasting and intimate relationships with others. People derive meaning from their relationships with their spouses, their parents and children, their close friends, and even from looser ties with acquaintances in their neighborhoods and at work. Successful personal relationships require certain attributes – emotional openness, kindness, a willingness to take risks with one’s feelings, trust – that do not develop automatically but are in large part responses to one’s environment. We can hope that families will provide the kind of environment in which a child will develop these qualities but not all will, and, even if they do, this process can be supplemented and reinforced by other institutions, including schools.

The ELA standards expect students to learn “to discern a speaker’s key points, request clarification, and ask relevant questions... build on others’ ideas, articulate their own ideas, and confirm they have been understood” and “become engaged and open-minded—but discerning—readers and listeners...[who]... work diligently to understand precisely what an author or speaker is saying, but they also question an author’s or speaker’s assumptions and premises and assess the veracity of claims and the soundness of reasoning.” In English Language Development students are expected “to participate in sustained dialogue...explain their thinking and build on others’ ideas” and, in CTE, “communicate clearly, effectively, and with reason”. In Health they learn the “ability to use interpersonal communication skills”, and that “positive relationships support the development of healthy attitudes and behaviors” and in PE to “become confident, independent, self-controlled, and resilient; develop positive social skills; learn to assume leadership; cooperate with others; accept responsibility for their own behavior.” In History – Social Science they should come to “understand common and complex themes throughout history, making connections among their own lives” and “respect for individual responsibility, for other people, and for the rules by which we all must live: fair play,

good sportsmanship, and respect for the rights and opinions of others”. The Model School Library standards emphasize teaching students how to “be respectful to others when using digital devices” while the Visual and Personal Arts standards claim that “achievement in the arts cultivates essential skills, such as...teamwork, effective communication.”

Capacity to Treat Others as Moral Equals

Equal respect for the basic dignity of persons underlies the idea that everybody has the same basic human rights, regardless of their sex, race, religion or nationality, and grounds norms against discrimination in hiring, promotion, and government provision. Regarding others as equals does not require that we care about strangers as much as we do about our family members, or ourselves. Nor does it rule out judgments that people are unequal with respect to attributes like strength, intelligence, or virtue. It means simply that we think of all people as fundamentally equal in moral status. That attitude and the accompanying dispositions are important for flourishing. Racism, for example, does not have to be legally enforced in order to be damaging. Even without legal discrimination, black Americans continue to be disadvantaged, due not only to the continuing material effects of legal discrimination but also to their treatment by others who, often unconsciously, assume superiority. The experience of slights grounded in assumptions of racial superiority – as with religion, gender, sexuality, or physical or mental abilities - undermines the self-respect and self-confidence of the slighted, making it harder for them to flourish. The impact is worse if the slighted themselves share the attitude that they are inferior, or, while not sharing it, are nonetheless disposed to accept the slights as their due. Developing and, crucially, *exercising*, the capacity to treat other people as moral equals is important, also, for properly balancing the pursuit of one’s own flourishing with the contribution one is obliged to make to the flourishing of others.

Many of the knowledge, skills, attitudes and dispositions needed to treat others as equals have already been mentioned under other headings: it is generally true that the capacities overlap in terms of the educational goods needed for their development and exercise. In addition though, ELA “broadens worldviews” and expects students to become “open-minded—but discerning—readers and listeners” who “work diligently to understand precisely what an author or speaker is saying, but they also question an author’s or speaker’s assumptions and premises and assess the veracity of claims and the soundness of reasoning”, and “come to understand other perspectives and cultures” by “vicariously inhabit[ing] worlds and hav[ing] experiences much different from their own.” History – Social Science exposes students to a “range and continuity of human experience and introduce[s] the concepts of courage, self-control, justice, heroism, leadership, deliberation, and individual responsibility”, and “reinforces the concept of civic behavior: how we interact respectfully with each other, following rules, and respecting the rights of others.” World Language instruction, by enabling us to communicate with “our international neighbors promotes peaceful relations.”

Capacity for Personal Fulfillment

Healthy personal relationships are important for flourishing, but so too are complex and satisfying labor and projects that engage one’s physical, aesthetic, intellectual and spiritual

faculties. People find great satisfaction in music, literature, and the arts; games and sports; mathematics and science; and religious practice. In these and other activities, they exercise and develop their talents, and meet complex challenges. A great deal of paid work is dreary, or carried out in the context of stressful status hierarchies, and people in such jobs have limited opportunities to flourish at work. School is a place in which children's horizons can be broadened. They can be exposed to – and can develop enthusiasms for and competence in – activities that they would never have encountered through familial and communal networks, and which, sometimes, suit them better than any they would have encountered in those ways.

The ELA standards aim to “develop the foundation for creative and purposeful expression in language” and “enlarge experience,” while CTE aims to enable students to “develop an education and career plan aligned with personal goals,” “understand financial literacy” and “demonstrate creativity and innovation.” Naturally, the PE, and Visual and Performing Arts standards emphasize fulfillment at the personal level. PE: “Good health develops fundamental and advanced motor skills, improves students’ self-confidence, and provides opportunities for increased levels of physical fitness that are associated with high academic achievement” and students should “become confident, independent, self-controlled, and resilient; develop positive social skills; set and strive for personal, achievable goals; learn to assume leadership; cooperate with others.” VPA: the arts are “means of expression that capture[s] their passions and emotions and allow[s] them to explore ideas, subject matter, and culture” and offer “students the opportunity to envision, set goals, determine a method to reach a goal and try it out, identify alternatives, evaluate, revise, solve problems, imagine, work collaboratively, and apply self-discipline” and “develop self-expression and self-confidence, and experience a sense of accomplishment.”

Distribution

Underlying many critiques of the American schooling system – left and right – is the idea that schooling is too unequal. Very roughly, liberal critics argue that we *underinvest* in the education of lower income and otherwise disadvantaged youth, whereas conservative critics argue that we invest *badly* in their education; plenty of critics (across the political spectrum), in fact, believe that we do both. The agreement is that it doesn't only matter what knowledge, skills, dispositions and attitudes the education system produces: it also matters how they are distributed in the population. Attention to “closing the achievement gap” aims to reduce the difference in the rates at which members of different demographic groups reach proficiency, or similar levels of achievement. Advocates of more funding to schools in disadvantaged neighborhoods presumably hope that funding will *improve the learning* – that is, the level of educational goods – of the students, or some of the students, in those particular schools.

Two different frameworks have dominated litigation over the distribution of educational resources and educational goods in the United States and specifically in California. In his contribution to the first iteration of *Getting Down to the Facts*, Robert Reich observes that whereas up until the 1980s an ‘equality’ framework was most commonly used in litigation, from the late 1980s on this was replaced by an ‘adequacy’ framework. “Adequacy’ is best interpreted as demanding that each student has some baseline of educational resources and educational

goods. So, for example, in *Williams vs The State of California*, the state settled a demand for, among other things, provision of “safe and decent” school facilities for all California’s students. Adequacy is, obviously, morally urgent. But even if adequacy is ensured, the question remains how to address inequalities between students who are at or above the adequacy threshold.

This question has been explored in a great deal of depth by philosophers, but that public debate, and even to a considerable extent the work of social scientists, has remained largely impervious to philosophers’ analyses. Thirty years ago Christopher Jencks commented that “the enduring popularity of equal educational opportunity probably derives from the fact that we can all define it in different ways without realizing how profound our differences really are”. Since Jencks wrote that, the term ‘equal educational opportunity’ has largely dropped out of discourse around schooling: having been replaced by the terms ‘equity’ and ‘social justice’ which are similarly ambiguous, and similarly mask a great deal of disagreement. This ambiguity is often reproduced in both public and scholarly discussion. The lack of clarity can generally be traced to several factors:

1. There is more political disagreement about exactly how educational goods should be distributed than there is about exactly what educational goods should be fostered.
2. There is genuine conceptual confusion, even among those who broadly agree about distributive values, concerning exactly what they agree about. Many agree that educational goods should be distributed *more equally than they are*, but understand that *complete equality* is impossible and may even be undesirable. When inequalities are very great, as they are, it might seem not to matter what the ultimate aim is.
3. Because of the political disagreement, and the political need to gloss over it, a vague term, *equity*, which can be understood many different ways has been widely adopted; this compounds the confusion of those who broadly *disagree*.
4. Whereas families and communities largely cooperate with the school system in fostering at least some of the capacities discussed above – at least those which they see as benefitting their child – they work *against* what might be reasonable distributive aims; in particular, whereas it is reasonable for the system to treat the education of *less advantaged* students as being more urgent, *more advantaged* families and communities prioritize their *own* children. Because, being more advantaged, they have more resources and power, they are able to increase the gaps between their children and less advantaged children, both in terms of their overall achievement and even, with judicious and well-resourced investments, in terms of how much they can learn during the school day.

Whereas we were able to systematize the goals of the standards not only within, but across, the different subject areas, it was much harder to discern a clear and consistent set of assumptions about what distribution the state is aiming for. And whereas we just looked at the standards and the Quality Schooling Framework for the assumptions about educational goods, we look at the structure of school financing, in addition to the language about equity, to analyze assumptions about distribution, on the principle that one’s budget reveals a lot about what one really values.

We start by looking at the use of the term equity in context. The Department offers the following on its page defining equity:

“Any goal of competitiveness and excellence must start with equity or be doomed to fail.”

“Students come to school with diverse backgrounds, abilities, talents, and challenges. Schools ensure equity by recognizing, respecting, and acting on this diversity. A common misperception is that equity means that all students are treated equally in all situations. In fact, high-quality schools have the capacity to differentiate instruction, services, and resource distribution to respond effectively to the diverse needs of their students, *with the aim of ensuring that all students benefit equally.*”

We interpret the italicized phrase as saying that each individual student should (ideally) benefit exactly as much as each other student from their time at school. As rest of that sentence implies, this would require that more resources be devoted to some students than to others, because those with greater needs may need more supports to get the benefits of schooling. A concrete example: if a classroom contains 25 hearing students, and 1 deaf student, and neither the teacher nor the hearing students can sign, then a signer will probably be required in order for that one student fully to participate in the class, and to learn as much as the other students do.

However, elsewhere, the document interprets ‘equity’ as a more demanding standard than ‘all students benefit equally’. The following is from the statement of the first of the “Six Goals of Equity in Education:”

- Quality schools will produce comparably high academic achievement and other positive outcomes for all students on all achievement indicators

This first equity goal is overarching: school leaders will provide and target every opportunity and resource to obtain comparably high academic and other positive outcomes for every student on all achievement indicators. Fulfillment of the remaining goals contributes to high outcomes for all students. Given that achievement gaps are an expression of inequity, comparably high achievement for all students across all indicators (including but not limited to attendance/absenteeism rates, promotion/retention rates, and graduation/drop-out rates) serves as evidence of equity leading to excellence

This goal is most naturally interpreted *not* as requiring that each student should make *equal gains*, but that all should end up with *equal achievement*. In other words, students should end up achieving equally well regardless of what attributes they bring to the school or what background circumstances they are in. The section on characteristics echoes this interpretation: “If we expect *equally high outcomes for all students*, differential investments may be required. As districts and schools plan for addressing the needs of all students there may be some areas where investment may be needed for targeted groups of students to achieve equitable

outcomes for all students.” (6) This may or may not be achievable, but it is the ideal that school contributes *more to those who come to school with less*, not that it *contributes equally to each*.⁹

Whichever of those two ways equity is interpreted, the framing in terms of ‘every student’ suggests that equity involves the same level of benefit to, or same level achievement of, *every single student*. This is a departure from a more standard interpretation of the goal of equity, which is to achieve some goal about the relative benefit or achievement of the members of well-defined demographic groups. The discussion in the section on the importance of equity suggests this might be what is really meant, and goes some way to defining the salient demographic groups (or subgroups):

- Ensuring that all students benefit fully from public education has been one of our nation’s most challenging civil rights issues. The achievement gap is the most pronounced expression of this challenge. The U.S. Department of Education describes the achievement gap as “the difference in academic performance between different ethnic groups.” (1) Although this issue is often discussed in the singular—as an achievement gap—there are actually multiple gaps, in addition to ethnicity, based on such factors as socioeconomics, disabilities, and English language proficiency. California is not exempt from this challenge, as achievement gaps among our students have remained largely unchanged for many years.

In California, achievement gaps are defined as the academic achievement disparities between *white students and other ethnic groups, as well as between English learners and native English speakers, socioeconomically disadvantaged and non-disadvantaged students, and students with disabilities compared to students without disabilities*.

The aim to eliminate gaps between these well-defined groups is different from the aim of eliminating gaps *within, as well as between*, them. But, again on either interpretation of equity we have surveyed (*equal benefit or equal achievement*) it would require a considerably unequal distribution of resources between groups. Does the actual funding system reflect any of these aims?

It does, *to some extent*. But, before we describe the funding system we want to mention a third conception of equity. Schouten (2012) articulates and defends a principle that better fits with both what the state of California actually does and many of the aspirational statements about equity than either of the interpretations we have discerned: the principle of prioritizing benefit to the disadvantaged.¹⁰ The central idea is derived from part of John Rawls’s theory of justice (1971)¹¹: that society is a cooperative enterprise between persons considered free and equal, in which no-one has a pre-existing claim to be specially advantaged. If we conceive of society that way then a sensible way of gauging how well the enterprise is going is by looking at the prospects of the less and least advantaged members of society. If those prospects are bad, something is going wrong; if they are good, that is evidence that things are going well. Actually realizing *equal achievement* would require measures to level down the achievement of those students whose parents and communities can supply them with outstanding out-of-school supports; whereas, even if *equal benefit* were achieved, given the inequalities that would remain, there would be a case for doing yet more for the disadvantaged. But Schouten’s

principle commands that decision-makers *do as much as they feasibly can* to enhance the life prospects of those whose life prospects are worse; exactly how much that is depends on what is feasible. We think that Schouten's principle, or some variant of it, better captures the thrust of equity-related programs and the Department of Education's discourse around equity than either of the definitions actually implied by the comments we have quoted.

How does the State distribute funds? It uses two main kinds of mechanism; categorical programs (including, for example, American Indian Early Childhood Education, Educator Effectiveness, a Special Olympics Unified Strategy for Schools, and Student Friendly Services) and the Local Control Funding Formula which was introduced in 2013: by far the most money is distributed through the Local Control Funding Formula.

Although the LCFF does several things at once, a substantial part of the intent behind it was to target resources to disadvantaged students. The LCFF provides a uniform base grant to each school district and charter school per unit of average daily attendance (ADA) based on the grade span of the pupils. That amount is adjusted in 3 ways that are relevant to equity. A 20% upward adjustment is made multiplied by ADA and the 'unduplicated percentage of targeted disadvantaged students': students who meet the income requirement for Free and Reduced Price Meals, students classified as English learners, and students in foster care.¹² It also provides a larger upward adjustment (of 50%) to districts with high concentrations of disadvantaged students (those with more than 55% of students falling in the targeted categories). Finally, there is provision for those districts that have not yet returned to pre-recession levels of funding (mainly districts with more disadvantaged students) to help them reach those levels. So for districts with high concentrations of disadvantage each unit of ADA attracts 70% more than the base level. A consequence, according to Bruno, is that districts in the quartile with the greatest concentration of disadvantage receive \$3,499 on average more than those in the quartile with the lowest concentration of disadvantage (though about 38% of that difference is accounted for by Federal and non-LCFF-related state revenues). The adjustments are required to be directed to advancing the educational interests of the targeted students, though it is not yet clear just what that means in practice.¹³

As detailed elsewhere in the GDTTF II study, considerable inequalities of resources and educational goods across districts and between students in different demographic groups persist.¹⁴ But the LCFF embodies a serious commitment to benefitting disadvantaged students.

That said, it is implausible that a 20% adjustment – or even a 70% adjustment – on only part of the funding stream could be enough to facilitate *equal achievement*, and even that it would be enough to facilitate *equal benefit*. Bruno notes that, given the other sources of funding, the adjustments do not result in anything close to 20% or 70% differences in spending capacity between districts with disadvantaged students and those with advantaged students.¹⁵ In the UK schools with disadvantaged students have budgets between 100% and 200% (depending on the concentration) above the base budget, and even that is not enough to facilitate either equal achievement or equal benefit, despite somewhat more favorable background conditions (viz that all students, regardless of family income, foster status, whether they are English learners, have access to free and good primary and emergency health care, including dental care and treatment for impaired hearing and vision). This is not surprising. It is

worth noting just how high the hurdles to learning for disadvantaged students are in the US. Richard Rothstein:

If you send two groups of students to equally high-quality schools, the group with greater socioeconomic disadvantage will necessarily have lower *average* achievement than the more fortunate group.

Why is this so? Because low-income children often have no health insurance and therefore no routine preventive medical and dental care, leading to more school absences as a result of illness. Children in low-income families are more prone to asthma, resulting in more sleeplessness, irritability, and lack of exercise. They experience lower birth weight as well as more lead poisoning and iron-deficiency anemia, each of which leads to diminished cognitive ability and more behavior problems. Their families frequently fall behind in rent and move, so children switch schools more often, losing continuity of instruction.

Poor children are, in general, not read to aloud as often or exposed to complex language and large vocabularies. Their parents have low-wage jobs and are more frequently laid off, causing family stress and more arbitrary discipline. The neighborhoods through which these children walk to school and in which they play have more crime and drugs and fewer adult role models with professional careers. Such children are more often in single-parent families and so get less adult attention. They have fewer cross-country trips, visits to museums and zoos, music or dance lessons, and organized sports leagues to develop their ambition, cultural awareness, and self-confidence.

Each of these disadvantages makes only a small contribution to the achievement gap, but cumulatively, they explain a lot.¹⁶

It's a tautology that decision-makers can only do what is feasible. Changes to funding arrangements are only politically feasible if there are not too many losers from them, so the status quo ante constrains any proposal for reform. In democracies taxpayers are voters, and have limited appetite for tax increases. The State must weigh equity – and education – against other priorities. So that the adjustment is not nearly enough to achieve whatever equity goals the State espouses, in the circumstances, is an observation, not a criticism.

Measurement

Neither researchers nor state officials have the means to measure either educational goods, or their distribution, directly. The measurements used by researchers contributing to *Getting Down To the Facts II* fall into two categories:

- i) They measure the amount and distribution of specific inputs to the educational process, or educational resources. These include, but are not limited to, financial resources, health and mental health care provision in and around schools; numbers

- of teachers; quality of teacher preparation, and the number of early childhood providers.
- ii) They measure the level and distribution of outcomes of the educational system which are regarded as very rough proxies for educational goods: for example, test scores, graduation rates, persistence rates in college, and rates and kinds of disciplinary exclusion.

None of these measure educational goods – the outcomes that we have reason to value that are articulated in the standards documents – and nobody believes that they do. We – and other researchers contributing to the project who agree that the standards articulate a defensible conception of educational goods – believe that these measures are indeed related to those goods, but cannot be at all precise about exactly what that relationship is. Consider some examples:

- i) Test scores: typically test scores aim to assess literacy and numeracy only, some level of each of which is needed for the achievement of each of the capacities we have identified in modern economic conditions. Small gaps between individuals and groups may be insignificant, and can easily be compensated for by reverse inequalities in different competences (like, for example, design skills, or foreign language skills, or so-called non-cognitive skills). But very low scores within well-defined demographic groups are of interests because it is reasonable to believe that they indicate that something is going wrong with the attainment of a much wider range of skills and thus educational goods, even though we cannot, now, measure exactly *what* is going wrong.
- ii) Now consider high school graduation and college persistence rates. Because of what we know about the associations between non-graduation and non-persistence on the one hand and employment status, expected income, health, and longevity on the other hand, we have reason to believe that lower rates normally indicate lower rates of educational goods, even though we cannot, given the measurements available, judge *how much* lower, or exactly *which* educational goods are lower.
- iii) Now consider inputs. If schooling does enhance the development of educational goods, and these resources are used at all effectively, then we have reason to believe that, on average, these resources promote the development of educational goods (except in children who are saturated with educational resources). On average students with better teachers will be better educated and on average those with better access to health care services will be healthier, and thus better learners, than they would have been with worse teachers and less access to health services. Conversely, lower levels of inputs give us reason to anticipate, on average, lower levels of the educational goods we have reason to care about but cannot measure directly, even though we cannot anticipate precisely which educational goods will be affected or by exactly how much.

Ideally, we would have better and more precise ways of measuring educational goods, their level, and how they are distributed. But it would be a serious mistake to disregard the

information provided by measures such as test scores, graduation rates and funding levels; they provide imprecise information, which needs interpreting.

How to Set Reasonable Goals for Future Performance?

We have surveyed the California State Standards, and the language used in discussions of resource distribution and special programs, to discern what the State's aims and goals are for what educational goods students should achieve and how those educational goods should be distributed. It is not within the remit of the current project to make policy recommendations. And, as observers who, unlike civil servants and elected officials, will not be held accountable for any decisions, it would be presumptuous of us to argue for a radically different set of aims than the state has set for itself. Instead we offer some thoughts about how to go about goal setting for a period of, say, a decade.

It is not reasonable – and could be harmful – to hold the system to *ideal* standards, which we know it could not meet. The purpose of goals is to guide action. Agents need to be able to see the path from where they are to where they are going: if where they are going is sufficiently distant, they need to be able to see the staging posts along the way. Ideals rightly guide the direction of change, but short-to-medium term goals should be set by establishing what the staging posts are and how to get there. Setting standards that will not be met is, furthermore, a recipe for demoralization, since failure is inevitable.

Holding a system to the standards it can *too easily meet*, though, could be similarly harmful. When stating *actual* aims and expectations (as opposed to the *ideal* aims and expectations) for a school system we seek to articulate standards which are sufficiently achievable for actors at different levels within the system to be able to find them a useful guide, but sufficiently demanding that they elicit innovation, effort, and enthusiasm for change. Set the statement of aims too close to the ideal and it becomes an unreachable set of slogans; set it too far below the ideal, and it is a recipe for complacency. When setting standards, the reasonable thing is, to borrow a phrase from educational psychology, to aim for the zone of proximal development. Evidence from elsewhere can inform the search for that zone, as can evidence about what the system already does. But setting it cannot be done simply by looking at the evidence. It requires judgment.

In other words, goal-setting is more art than science, albeit an art that involves judgments that must be informed by data. As well as adjudicating what is feasible, and using that judgment to inform numerical specifications, goal-setters must be attentive to the possibility that incentives can have undesirable collateral effects. The aim of setting goals to increase graduation rates and test scores for disadvantaged students is to improve *their education and thus their life-prospects*. Improved graduation rates do not have this consequence if achieved simply by relaxing standards; improved test scores do not have this consequence if achieved just by improving test-taking skills at the cost of improving other skills and content knowledge. Having done their best to avoid incentives that trigger undesirable collateral effects, decision-makers should remain alert to the possibility that they will occur anyway, and judge progress of school districts and schools toward the stated goals in the light

of their understanding that the goals are proxies for something more fundamental and difficult to measure.

How should leaders go about making judgments about what is feasible over the time period in consideration?

Our suggestion is to look at how well other, similarly situated, and similarly constrained, entities do for similarly disadvantaged students. Exactly what systems are similarly situated and face similar constraints, and exactly which students are similarly disadvantaged, is a matter of judgment. It is common, for example, for critics of the performance of the US education system to point to the success of Finland. Finland is, indeed, successful. But educational decision-makers in Finland face very different parameters from decision-makers in California. Because wage rates between the professions are more equal the teaching profession can more easily (and more cheaply) compete for talented labor. Because the population is more homogenous, the system can expend fewer resources on language learners. Because Finland has high quality and universal primary medical care very few students arrive at school without the basic health needed to thrive in school. Most fundamentally, Finland's child poverty rate is 5.3%, as opposed to California's child poverty rate which hovers around 20%. A child poverty rate of 5.3%, furthermore, means that hardly any children at all are raised in communities with the high concentration of disadvantage that large numbers of Californian children endure.

A more promising avenue is to look at other States whose disadvantaged students do better than those in California. In their contribution to this study, Sean Reardon et al distinguish three metrics by which we might judge the performance *of the State's education system overall*: Test Scores, Graduation Rates, and Exclusion Rates. A goal-setting exercise might look at test scores, graduation rates, or exclusion rates, for disadvantaged students in other states than California, and use those numbers as benchmarks. So, for example, California currently ranks 22nd among states for graduation rates of ELL students: 65% of ELL students graduate high school, whereas in Rhode Island, which ranks 12th, 72% of ELL students graduate high school (despite RI having about the same graduation rate for all students as California).

For illustration we looked at test scores and graduation rates for specific groups of disadvantaged students in California and compared them with the national average and with specific other states. Just consider for the moment graduation rates for economically disadvantaged students. Table 1 shows that the national average graduation rate for economically disadvantaged students in 2014-15 was 76.1%, and California exceeded that with 78%. In Texas, by contrast, the graduation rate was 85.6%. It strikes us that a goal of 100% would be inappropriate: while 100% would be highly desirable, it is implausible that the state would reach that goal in a decade. A goal of maintaining 78% seems, conversely, unduly unambitious. Looking at the Texas, a relatively high performer, and assessing what resources and reforms would be needed to exceed their level, might indicate that a rate of, say 90% is an appropriate 10-year goal. Or consider table 2, which shows that on NAEP tests in 2017 25% of students eligible for FRM were proficient or advanced in Grade 4 Mathematics in the nation as a whole, but in California only 18% scored above the proficiency cut-off. 100% proficiency would be desirable, but seems like an unhelpful goal; and mere maintenance of the 18% figure seems complacent in the extreme given that other states like Massachusetts and Texas

achieved 29%. Reviewing what resources and reforms would be needed for improvement, and the extent to which those could be made available if the political will were there might suggest a goal of exceeding the national average by as much as California currently falls short.

Table 1. Graduation Rates (2014-15)

State	Overall	AA Rate	Disadvantaged Rate
National	83.2	74.6	76.1
Arizona	77.4	72.6	73.1
California	82.0	71.0	78.0
Massachusetts	87.3	77.5	78.2
Texas	89.0	85.2	85.6

Table 2. Eligible FRM Student Test Scores - Grade 4: Mathematics (2017)

	Below Basic	At Basic	At Proficient	At Advanced
National	31	44	22	3
Arizona	36	43	19	2
California	40	42	16	2
Massachusetts	25	46	26	3
Texas	25	46	25	4

Table 3. Eligible FRM Student Test Scores – Grade 8: Mathematics (2017)

	Below Basic	At Basic	At Proficient	At Advanced
National	45	37	15	3
Arizona	41	38	17	4
California	51	34	12	2
Massachusetts	33	39	21	7
Texas	40	40	17	3

Concluding Comment

Implicit in California’s curricular standards is a diverse and rich set of assumptions about what aims the educational system should have for the students – what capacities the students should develop. Implicit in the equity-related programs is a defensible conception of equity in education, though one that is at odds with some of the more abstract comments about equity that are made in justification of those programs. We are not Californians, we have no official standing, and, crucially, unlike official decision-makers, we do not have to assume any responsibility for the consequences of any goals set for the California system. So we have merely offered some thoughts about how to go about the process of goal-setting, and illustrations of the kind of data to look at when engaging in that process.

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¹ See Tooley (1996) For a concrete application of an adequacy framework to California law see <http://www.hastingslawjournal.org/wp-content/uploads/Gordon-67.2.pdf>

² See Ben-Shahar (2015)

³ The State Constitution does include the following provision: “A general diffusion of knowledge and intelligence being to the preservation of the rights and liberties of the people, the Legislature shall encourage by all suitable means the promotion of intellectual, scientific, moral, and agricultural improvement” which strikes us as even more abstract than the UK statement.

⁴ To his credit, Rubio has since retracted his remarks, see Trasinski (2018)

⁵ We are describing the educational system in the UK in the 1970s, not an imaginary one.

⁶ This is what Robert Reich called the rise of “symbolic analysts”. See Reich (2010)

⁷ See Brighthouse, Ladd, Loeb, Swift (2018)

⁸ See Gutmann and Thompson (1998), Galston, (1991)

⁹ This goal seems literally impossible, given background distribution of talents: how would the state ensure that children with serious cognitive disabilities were equipped with the same educational goods as other children? And even if it were possible, it would be extremely expensive, absorbing resources that might be better used in other areas of policy.

¹⁰ Schouten (2012)

¹¹ Rawls (1971)

¹² “Unduplicated” just means that the 20% adjustment is not increased for students who fall into more than one of these categories.

¹³ Several districts have experienced complaints that the funds are not reaching the more disadvantaged students. See, eg, Nittle (2016)

¹⁴ See also <https://west.edtrust.org/resource/the-steep-road-to-resource-equity-in-california-education/>

¹⁵ Bruno (2018)

¹⁶ Rothstein (2008) p.8.