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IS UNIVERSAL PRESCHOOL BENEFICIAL?

AN ASSESSMENT OF RAND CORPORATION'S ANALYSIS AND PROPOSALS FOR CALIFORNIA

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Is Universal Preschool Beneficial? An Assessment of RAND Corporation's Analysis and the Proposals for California

By Christopher F. Cardiff and Edward Stringham

Executive Summary

Almost two-thirds of California families currently choose to send their 4-year-olds to preschool. Of those who do, almost half choose a preschool program operated by the state of California, while the other half choose a privately operated preschool. If Proposition 82, an initiative on the June ballot, is implemented those figures will radically change. Most family- and other privately-owned preschools will vanish, replaced by government-run, taxpayer-funded preschools.

Proposition 82 would entrench a \$2.3 billion per year government-run universal preschool program into state law. The Proposition 82 effort was launched on the heels of the RAND Corporation's March 2005 study, *The Economics of Investing in Universal Preschool Education in California*.¹ The RAND study paints an extremely optimistic and rosy picture about how government-run preschools would benefit society, concluding that they would generate "between \$2 and \$4 in benefits for every dollar expended."

This report assesses RAND Corporation's cost benefit analysis and finds that it significantly overestimates the upsides and drastically underestimates the downsides of universal preschool and the California proposal. Using RAND's own data and alternative assumptions based on the studies they reference, it is easy to demonstrate that universal preschool generates losses of 25 to 30 cents for every dollar spent. And these losses are calculated before including any of the additional universal preschool program costs that RAND ignored in its analysis.

Proposition 82, even according to RAND Corporation's low estimates, would cost California taxpayers \$2.3 billion each year in perpetuity.² With those annual operating expenses, only the brightest—and unlikeliest—scenarios would produce benefits that outweigh the costs of universal preschool. In its analysis, the RAND study ignores numerous costs that will add billions to the preschool bill for California taxpayers and will thus make RAND's predictions even more improbable.

Where today's non-government preschools, many of them family-owned and operated, constitute 45 percent of the market, the RAND study predicts that most private providers will disappear if the government assumes responsibility for preschool. The vast variety of preschools found in communities across the state would be replaced by a monolithic, one-size-fits-all system designed, controlled, and funded by a statewide bureaucracy—the same bureaucracy that already fails students at the K-12 level. The options available in the private preschool market would wither, with almost 90 percent of children going to state-operated facilities and 10 percent going to private schools, mostly catering to the elite.

The RAND study turns out to be nothing more than a rationalization for an extremely questionable policy.

Given the California government's track record in running a universal K-12 education system—with struggling performance, low standardized test scores, a shortage of qualified teachers, and high administrative costs, just to name a few of the current problems—there seems to be little reason to expect the state would achieve a new and unprecedented level of success at creating and providing high-performing preschools for all students across California. How often is it true that the best way to fix a troubled system is to expand it? As it stands, California's current government-run preschools meet only four out of ten quality standards for preschools.³

This is especially true in inner-city schools, populated by low-income families, where the state government has consistently failed to provide a quality education. Advocates of California's proposal tout government-run universal preschool as a benefit for these low-income, high-risk children. In reality, only about 8 percent of Proposition 82's funding would go to these families. As the RAND study makes clear, the vast majority of taxpayers' money would be spent on middle- and high-income families who are already paying for private preschool for their children.

In the public policy debate, many of the justifications for the proposed preschool program rest on conclusions from the RAND study, so before voters unwittingly accept its policy prescriptions, we should investigate the soundness of the analysis.

On its surface the RAND study appears thoroughly researched. However, close inspection reveals the study is deeply and fatally flawed. The assumptions underlying universal preschool's alleged benefits are unwarranted at times, leading to gross inflation of the benefits. And even more

troubling, most of the downsides of the California proposal are completely ignored. To this end, the RAND study devotes more than 80 percent of its pages to estimating tangible and intangible gains to various parts of society, while it devotes less than 5 percent of its pages to addressing the costs. The flaws in the RAND cost benefit analysis of government-run universal preschool are numerous and those addressed in this analysis include:

- The RAND study unreliably conjectures benefits based on small-scale studies that are unlikely to scale statewide;
- RAND questionably assumes benefits will double for children already in government preschool programs;
- RAND questionably assumes that government preschools will provide additional benefits for children already in high quality private preschool programs;
- RAND questionably estimates costs of universal government preschool based on an unseen “forthcoming” study, leaving evaluators with little ability to evaluate their underlying figures;
- RAND completely ignores the cost of creating a whole new government bureaucracy;
- RAND all but ignores intangible and difficult to measure costs of the proposed program;
- RAND underestimates the economic consequences of further increasing taxes in California;
- RAND underestimates the costs of the program by ignoring the already existing teacher shortage and failing to consider the necessary industry-wide changes in teacher wages that would accompany the program;
- RAND ignores countervailing evidence from alternative studies that bring into serious question many of their conclusions.

The RAND study fails to pass the benchmark of what can be considered a reasonable economic analysis. If the RAND study was submitted in our San Jose State University classrooms, it would get an “F”. The bottom line is: The RAND study significantly overestimates the benefits of government-provided universal preschool and significantly underestimates the program’s costs. As a result, the study’s conclusions about the benefits of universal preschool are blatantly overstated and incorrect.

Table of Contents

Introduction.....	1
Universal Government Preschool: What Would Change? What Would Not?.....	2
Troubled Analysis: Rosy Scenarios on Benefits and Ignoring Significant Costs	7
A. A More Realistic Examination of The Benefits of Universal Preschool.....	9
B. Ignored Costs	13
Conclusion.....	19
About the Authors.....	20
Related Reason Studies	21
Endnotes.....	22

Table of Figures

Figure 1: Four-Year Olds, Preschool Enrollment by Family Income	3
Figure 2: Distribution of Preschools.....	4
Figure 3: Current Distribution of Preschool Participants by Income.....	5
Figure 4: Distribution of Preschool Participants by Income After Prop. 82.....	5
Figure 5: Reduced Cost-Benefit Ratios Under Head Start Assumptions	10
Figure 6: Reduced Cost-Benefit Ratios Under Different Assumptions.....	13
Figure 7: Projected K-12 Public School Teacher Workforce Through 2014-15.....	14

Part 1

Introduction

In the past several years, Californians have rejected several attempts to create government-run universal preschool because the state legislature recognized, among other concerns, the major problem with funding such a massive undertaking. But now, buoyed by a 192-page report published by the RAND Corporation, *The Economics of Investing in Universal Preschool Education in California*, advocates are claiming that the universal preschool proposal makes economic sense.⁴ RAND's study, which was prepared for the David and Lucile Packard Foundation,⁵ a long-time advocate of universal preschool, attempts to justify the multi-billion dollar expenditures required for a universal, government-operated preschool program in California.

A more recent study by the National Institute for Early Education Research asserts substantial benefits from universal preschool, using a fairly simple, almost “back of the envelope” cost-benefit analysis.⁶ They find results similar to RAND's, but the RAND report is the lynchpin of the debate because of its detail and supposed credibility, and thus is our focus here. Despite the seemingly sophisticated “economic” arguments for universal preschool, close examination shows RAND is not engaging in evenhanded cost-benefit analysis. They choose the rosiest benefit scenarios, rather than the most likely. If more realistic assumptions about the effects of universal preschool are used, the benefits shrink considerably. They also fail to count a great many costs, which if included, substantially impact the results.

Because of the considerable weaknesses in the RAND Corporation's report, it should not be relied on for framing this important public policy issue. After seeing the serious shortcomings of the arguments by universal preschool advocates and the RAND Corporation, we conclude that government-run universal preschool would be a raw deal for California taxpayers, parents, and children.

Part 2

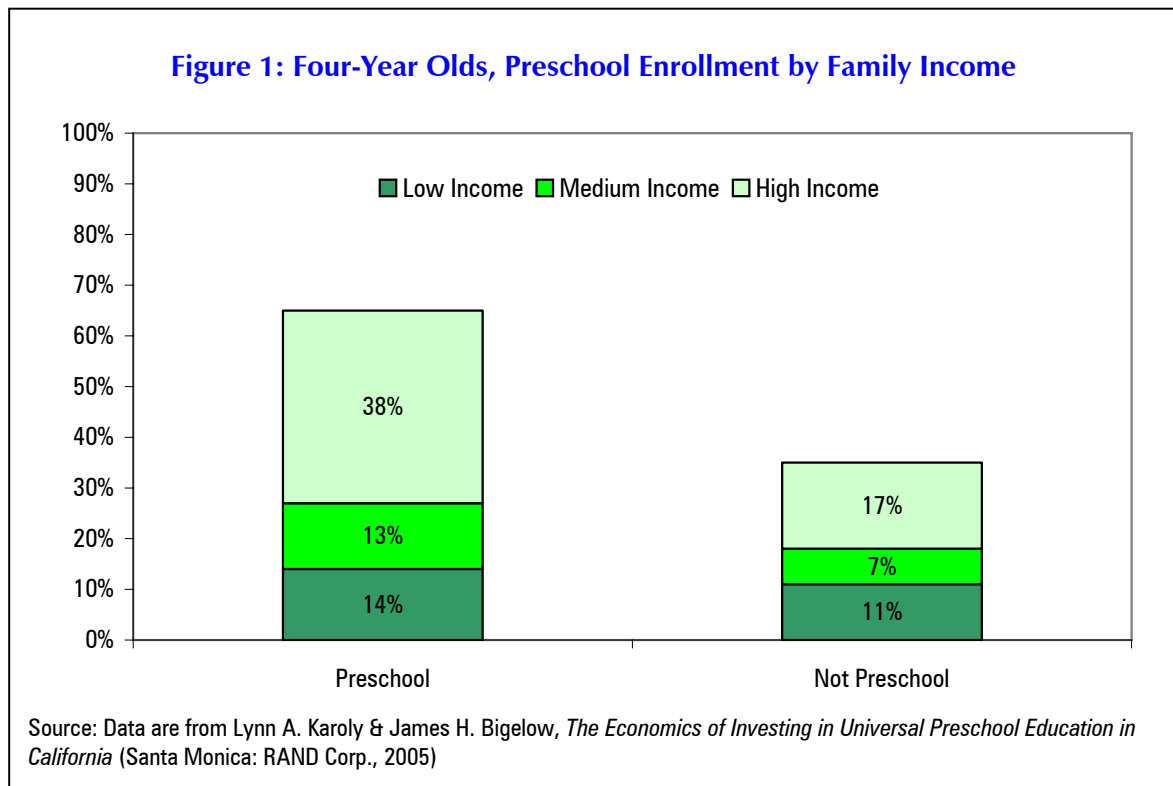
Universal Government Preschool: What Would Change? What Would Not?

California's existing K-12 education system is struggling to produce the desired results and student achievement outcomes, so parents and taxpayers ought to be skeptical that adding universal preschool and enlarging the existing state bureaucracy is the right fix.

Let us compare our present preschool system with the proposed system of government-run universal preschool. California taxpayers currently pay over \$3 billion a year to provide preschool programs for targeted high-risk, low-income families. Forty-nine percent of California's 3- and 4-year-olds attend preschools,⁷ which is comparable to the overall enrollment rate in the United States of 52 percent. Some universal preschool advocates point to this figure to imply that 51 percent of Californians cannot send their children to preschool, but the figure is misleading because it aggregates 3- and 4-year-olds.



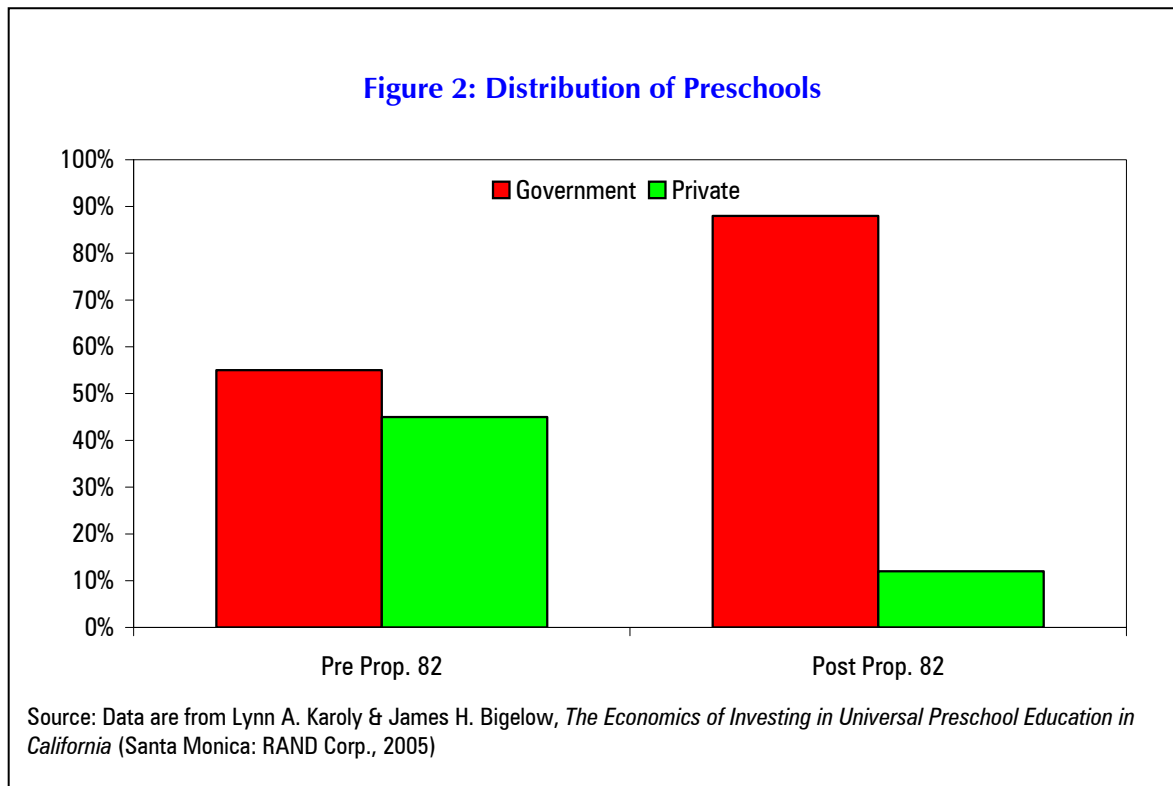
Figure 1 indicates that in California, almost two-thirds of 4-year-olds currently attend preschool while less than one-third of 3-year-olds do. Moreover, most families with 4-year-olds not in preschool have voluntarily chosen to keep their children at home even though they could afford preschool. Only 11 percent of 4-year-olds from low-income families are not in preschool, due in part to financial hardship. By comparison, 7 percent of medium-income families and 17 percent of high-income families choose to keep their children out of preschool even though they can afford it. So presumably some low income families do as well. Thus, it is likely that less than 10 percent of 4-year-olds are not in preschool because their families cannot afford it.



Is our current system broken?

Although many parents feel happy with their preschools, universal preschool advocates insist that California preschools are subpar,⁸ thus the alleged need to create a new massive state bureaucracy. They curiously point out that California's current government-run preschools meet only four out of ten quality standards for preschools.⁹ But rather than taking the problems with government-run schools as an indication that the government may not be the best provider of these services, they instead take this as an indicator that government should do more. RAND criticizes our current system based on bad government preschools, yet they provide no details on how California's private preschools measure against their unspecified quality standards. If the private schools are already doing a good job, do we really want to risk our children's future by taking them out of high quality private preschools and making them go to low quality government preschools?

If universal preschool is implemented, families will have few other choices because the government will take over virtually all of the preschool market. Figure 2 illustrates how the current mix of public and private preschools would change to one where government schools predominate. If Proposition 82 were to be adopted, the RAND study predicts participation in private preschool would shrink from 45 percent of the market to 12 percent; that is, where private businesses currently provide almost half of the preschool market, government will absorb almost all of it, swelling to nearly 90 percent of all preschools.¹⁰ Economists call this phenomenon "crowding out."



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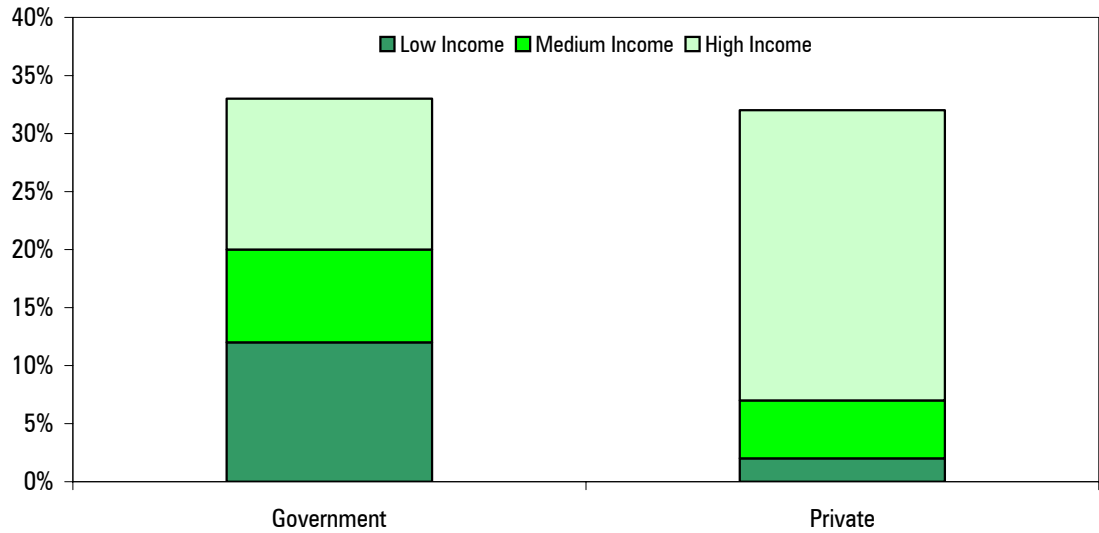
After having shown that our current system is in need of repair, government-run preschool advocates now propose a “high-quality preschool program that is universally available to all age-eligible children.”¹¹ Under their scheme, the government would create a one-size-fits-all, top down prescription to fix all of our preschool woes. Their fix: a maximum child-staff ratio of 10:1; teachers that are certified by the state and teach from a standard preschool curriculum; and full public funding.

Is creating quality preschools for children as simple as that? The advocates of government-run universal preschool seem to think so.

RAND looks at universal preschool programs in Georgia and Oklahoma to predict that their proposed program will boost preschool enrollment from the current 65 percent of 4-year-olds to 80 percent, with two-thirds of that growth coming in the middle- and high-income groups.¹²

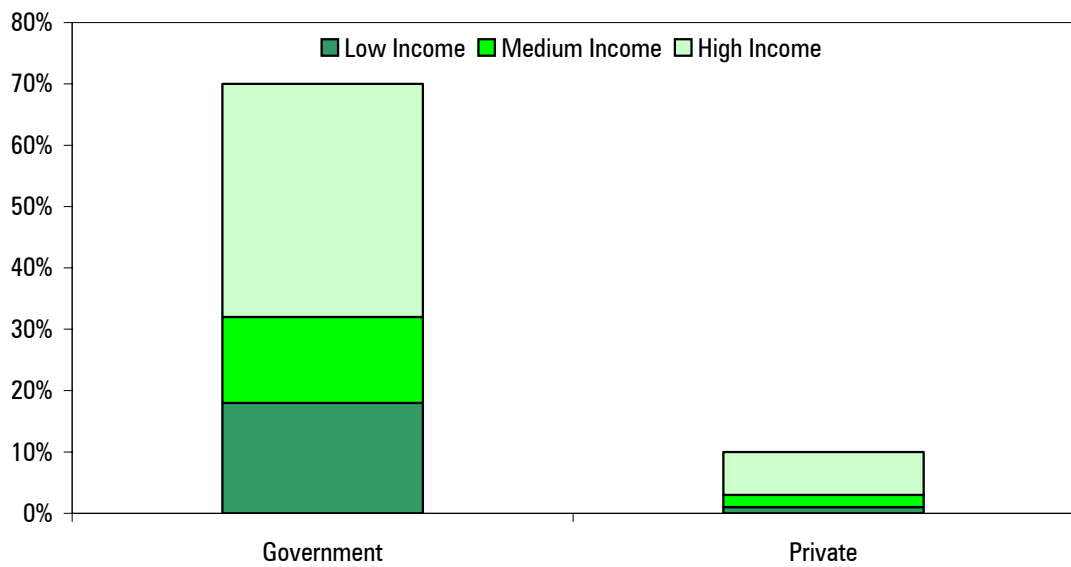
Figures 3 and 4 illustrate how children of middle- and high-income families will go from private schools to public schools.

Figure 3: Current Distribution of Preschool Participants by Income



Source: Data are from Lynn A. Karoly & James H. Bigelow, *The Economics of Investing in Universal Preschool Education in California* (Santa Monica: RAND Corp., 2005)

Figure 4: Distribution of Preschool Participants by Income After Prop. 82



Source: Data are from Lynn A. Karoly & James H. Bigelow, *The Economics of Investing in Universal Preschool Education in California* (Santa Monica: RAND Corp., 2005)

Even the RAND study recognizes that the dramatic shift from private preschool enrollment to government preschool programs will be amongst the middle- and high-income groups, which comprise 75 percent of children. RAND predicts that most families would transfer their children from the current private preschool market to the new state-operated system, at a cost to taxpayers of \$1.7 billion, which would exceed 70 percent of the Proposition 82 funds (this includes money for new families). An additional 22 percent of Proposition 82 funds would be allocated to families who are already attending government preschools. The result would be that 92 percent of Proposition 82 funding, at an estimated cost of \$2.2 billion annually, would pay to transfer children from their existing preschools into a new program run by the state.

Part 3

Troubled Analysis: Rosy Scenarios on Benefits and Ignoring Significant Costs

Why should California taxpayers spend billions of dollars to create a bureaucracy that will largely wipe out private preschool options?

The RAND study purports to have an answer. Despite its costs, the advocates of state-run universal preschool tell us that the government can double or quadruple our money through this program.

They argue that a host of benefits would accrue to society as a result of preschool turning the participants into more productive members of society. Many of these are indirect, spillover benefits—and some the authors do not quantify. The quantifiable numbers they estimate are:

- Increased lifetime earnings (48%): preschoolers do better in school and stay longer. This improves their education and results in better jobs and higher lifetime incomes. This is by far the largest component of the projected benefits.
- Increased taxes to local, state, and federal governments (4%): related to increased lifetime earnings. Because they make more money, participants pay more taxes.
- Value of childcare (21%): accruing to the parents, this is the second largest projected benefit.
- Fewer crime victims and less child abuse (12%): preschool participants are less likely to turn to crime or abuse children.
- Reduced justice system costs (9%): similarly, the justice system sees reduced costs because of reduced criminal activity by participants.
- Reduced education costs (6%): the education system sees reduced costs from the need for special and/or remedial education (the authors balance this benefit with increased costs for staying in school longer).

Unquantifiable benefits include: reduced pain and suffering to victims from less crime; the advantages to employers of a more highly educated workforce; and the advantages to the Social Security system of having more workers in the system.

How do they come up with this grand story?



While the Rand authors are scrupulous about applying cost-benefit techniques when evaluating the benefits, how they estimate the benefits is determined by their underlying assumptions. They estimate the benefits for the entire state of California by extrapolating from an extremely small data set—using only a few studies that mostly look at small groups of kids. By relying heavily on these studies for their numbers, the authors can then extend them by making additional assumptions—many of which are unwarranted and ignore countervailing data. In some cases, RAND does acknowledge problem areas but in those difficult cases they decide to leave them out of their analysis. The crucial problem is that their findings are not robust: changing just a few of their assumptions completely reverses their conclusions. These include basic things like considering universal preschools effect (or lack of effect) on kids from high-

and middle-income families, the impact on kids already in government preschool, the scalability of pilot programs, and the lasting vs. short-term effects.

The RAND authors largely overlook the negatives and rely heavily on the most favorable studies, those evaluating the Chicago and Perry Preschool programs, for their assumptions.

The RAND report relies on data from four studies. They designate two as small-scale, quality experimental studies characterized by random selection to contrast participants and non-participants. They describe the other two as large-scale, quasi-experimental, because they do not use random selection. To the RAND authors' credit, the studies selected are not completely positive in their evaluation of the effects of universal preschool. The problem, however, is that for the purpose of estimating the benefits, RAND bases its assumptions almost exclusively on the *positive* studies.

The experimental studies are divided. One, the Perry Preschool Project, finds generally positive results, while the other, the Early Training Project, finds largely neutral or statistically insignificant results.

The large scale, quasi-experimental studies are similarly divided, with the Chicago Child-Parent Center on the positive side, and the national Head Start program (the granddaddy of all preschool programs) turning in decidedly mixed results. The Head Start program is the most heavily studied of all preschool programs. While the authors summarize some of the research findings, RAND inexplicably chose not to incorporate any into their assumptions.

The RAND authors largely overlook the negatives and rely heavily on the most favorable studies, those evaluating the Chicago and Perry Preschool programs, for their assumptions. Oddly, when they present a range of assumptions and outcomes that are meant to characterize liberal versus strict assumptions, they completely exclude the data from the studies showing smaller or zero benefits.

In addition, both of the positive studies that the RAND authors rely on for their assumptions “included a large parental component.¹³” The RAND authors gloss over the fact that extensive parental involvement was a key component of the successful studies used to justify the supposed benefits of universal preschool—but that current universal preschool proposals, like Proposition 82, do not include this vital extensive parental involvement.

For example, students in the Chicago study didn’t just go to preschool. They also received speech therapy, health screenings, meals, tutoring through the third grade, and six years of a Child-Parent Center Program that boosted parental involvement. The lead researcher of the Chicago project, Arthur J. Reynolds, Ph.D., cited the Child-Parent Center as a primary reason for the plan’s overall success. “We are confident that participation in the Child-Parent Center Program from ages 3 to 9 years was the source of the group differences at age 20 years,” Reynolds stated. The proposed California plan does not offer anything remotely close to the Chicago program’s diverse assistance and parental involvement, so any inference that the benefits or results of the two programs will somehow be comparable is off the mark.

The RAND authors gloss over the fact that extensive parental involvement was a key component of the successful studies used to justify the benefits, but that current universal preschool proposals like Proposition 82 do not include extensive parental involvement.

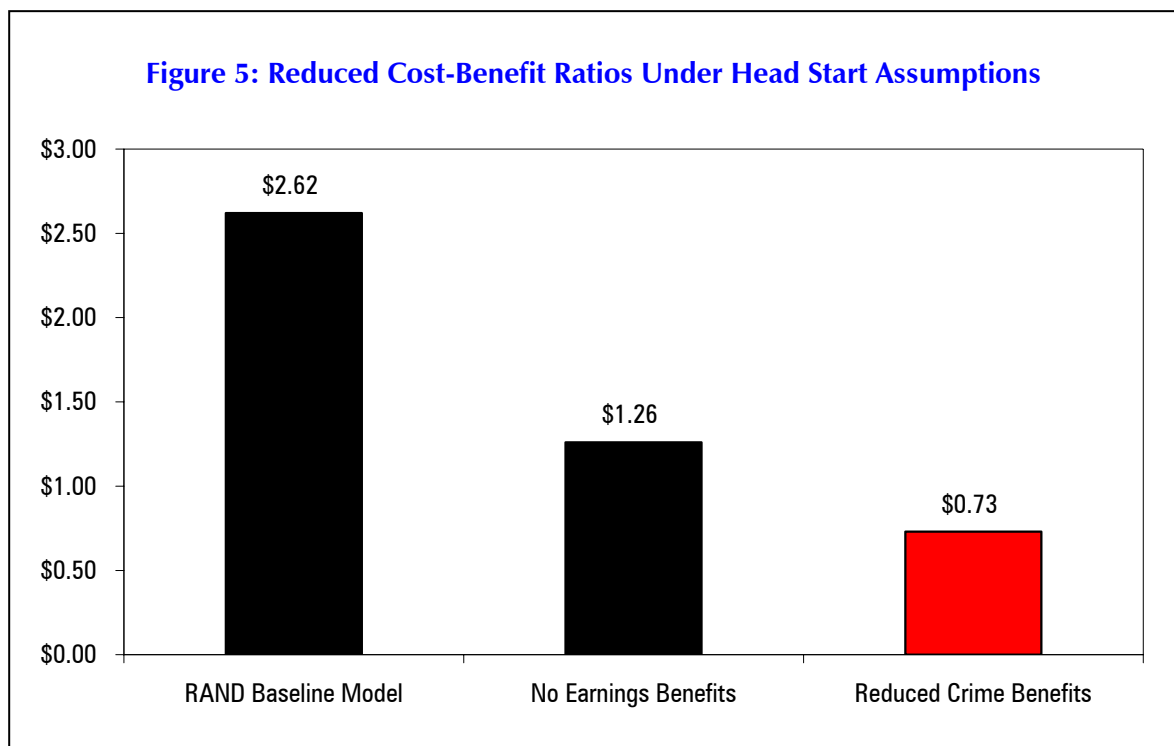
A. A More Realistic Examination of the Benefits of Universal Preschool

Because the RAND authors generate their estimates of benefits by extrapolating the results from the most favorable studies, completely different results are obtained by relying on other studies. For example, the RAND authors even summarize a major longitudinal study of the Head Start program by Garces, Thomas, and Currie (2002) that completely undermines the RAND estimates. They write:

For whites, there is no significant effect of Head Start on earnings in young adulthood or with contact with the criminal justice system. Among black Head Start participants, while there are no effects of Head Start on high school completion, college attendance, or earnings, there is significantly lower incidence of being booked or charged with a crime compared with those who did not attend preschool.¹⁴

The RAND authors ignore this issue, selectively attributing this lack of success to inadequately trained teachers, and they somehow go on to assume that the government in California would have none of the same problems. By leaving this data out of the range of benefit estimates,¹⁵ they are now able to assume that the program would increase earnings and decrease crime rates for all demographic groups.

Yet, if RAND had used data from the largest, longest-running, and most studied preschool program in the U.S. as the basis for analysis, the estimated benefits would be much lower and universal preschool would be an obvious loser for kids, parents, and taxpayers. Figure 5 illustrates what happens to some of the benefits if we do so. The first bar shows the benefits the RAND study purports to achieve from increased earnings and the taxes on those earnings and to less crime—about \$2.50 for every dollar spent. The other two bars show what the benefits would be if we use the findings of the Head Start study. The middle bar is what we get if we eliminate the benefits of increased earnings and taxes on them—the large-scale Head Start study did not find any such benefits—leaving us with about \$1.25 in benefits for every dollar spent. But the third bar takes out the benefits of reduced crime—the Head Start study found only less crime among blacks who attend preschool, but since blacks are only 7 percent of California’s population, the total benefit is only about 1 percent. As the third bar shows, using Head Start assumptions and the RAND study’s own numbers, universal preschool would create only 73 cents of benefits for every dollar spent.



Once the RAND authors make the case that these programs can have benefits, they then go on to make the case that they would have benefits in California. Yet nowhere does RAND prove that this will be the case. The most questionable assumption is that the benefits from these model programs will successfully scale statewide in massive California.

The inability of California to provide quality preschool on a statewide scale is actually underscored by the RAND authors themselves. Their benefit number includes the assumption that high-risk children already attending government-funded and operated preschools will double their benefits from the new government preschool program. This assumption is built-in to their baseline model as well as their “conservative” alternative estimates. Their least conservative estimate assumes that preschoolers derive zero benefits from the existing government preschool programs for high-risk children.¹⁶ When the authors tout the “range of benefits” from universal preschool, this extremely unlikely assumption is built-in to the estimate for the top of their range.

All of the studies that the RAND authors examine focus on low-income families (high-risk and low-income are largely synonymous in this context). One of the RAND authors’ biggest assumptions is that middle- and high-income families, who currently choose not to participate in any formal preschool program, would also benefit from universal preschool programs to some extent, despite the fact, as they acknowledge, “Evidence of the potential impacts of such a preschool program on more-advantaged children is less conclusive.”¹⁷ They go on to cite evidence from studies that “suggests that there is no long-term gain from non-Head Start preschool participation, in other words, preschool for more-advantaged populations,” but despite these caveats, the RAND authors nevertheless assume that children from middle- and upper-income families would receive long-term gains by transferring from their current home-based situation to a government-run universal preschool program.

RAND’s assumptions also implicitly indict the existing quality of government provided preschool relative to the private preschool marketplace. Their baseline model attributes zero additional benefits to any children transferring from a private preschool to a government-operated preschool. In other words, they assume that private preschools are already the high quality they hope government preschools will become.

With all the focus on quality preschool and the associated benefits, it is worthwhile to ask how is quality actually measured?



Perhaps the most interesting aspect of this focus on quality preschool programs and benefits is how little data there really is and, consequently, how shaky the assumptions are that RAND makes predicated on that scarce data. Even more confusing is the fact that when the RAND study criticizes California for meeting only four out of ten measures of a quality preschool program,

they are not criticizing the quality of preschools in California. They have a checklist of 10 items that they believe characterize a quality preschool. While these items of quality may be debatable, the key point is that the authors provide no data on how many preschools actually meet the criteria. They only provide data on how many preschool regulations corresponding to the checklist

California has on its books. In other words, California preschools could, on average, be meeting six, eight, or nine of their criteria for quality preschools but because California only has laws on the books for four of the criteria, California would be rated as having a poor implementation of universal preschool.

In addition to those problems with RAND's benefit analysis, their estimated benefits for government-run universal preschool are highly sensitive to changes in the underlying assumptions. Even taking the rest of RAND Corporation's data at face value, if we vary any one of three important assumptions we can see how exactly the opposite conclusion can be reached: an investment in universal preschool is a net loser from a cost benefit perspective.

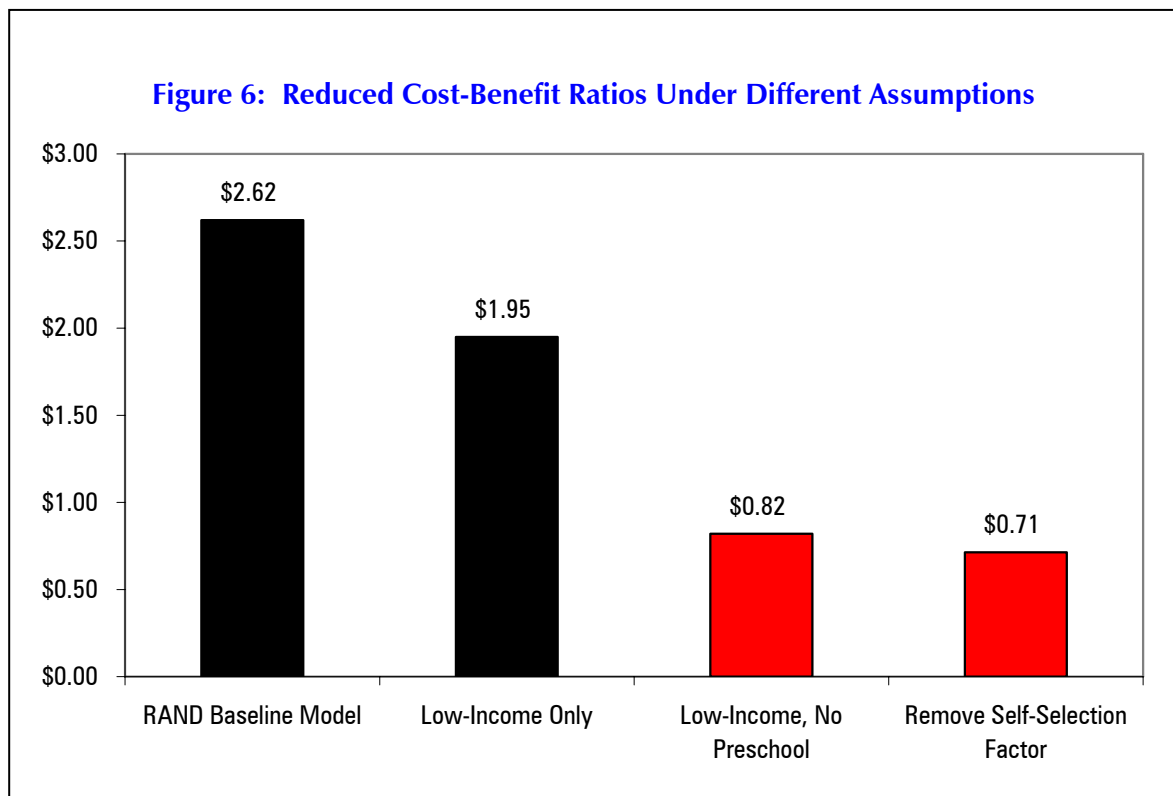
Using the RAND study's own figures, Figure 6 illustrates how changing some assumptions reverses the conclusion. The first bar shows RAND's benefit-cost ratio of \$2.62 returned for every dollar spent on universal preschool. The second bar shows that the benefits drop by 26 percent, to \$1.95, if we assume that middle- and high-income families whose children already attend preschool do not benefit from shifting to new universal preschools. RAND offers no real evidence for those benefits and several reasons to suspect they don't exist.¹⁸

The third bar shows that the benefits fall to \$0.82 for every dollar invested if we assume that universal preschool would not provide additional net benefits to low-income children who already attend preschool and would be shifting to universal preschools. Why would moving a child from one government-run preschool (under our current system) to another government-run preschool (under universal preschool) provide additional net benefits?

RAND would have us believe that the state is suddenly going to turn over a new leaf and radically improve the quality of government preschools, but their track record in providing low quality preschools to date and failing to deliver on promises of dramatic improvements in the K-12 system give considerable reason to doubt these benefits will ever materialize.

Most of the benefits attributed to preschool are due to kids receiving increased lifetime earnings (and taxes paid) from increased education. The RAND study acknowledges that the academic literature suggests that some kids would go on to higher earnings and pay more taxes even if they don't go to preschool, so we should assume that 25 percent of the benefits from higher earnings and taxes paid are not due to preschool.¹⁹ But they decline to follow this advice and adjust their benefits estimate accordingly, arguing that unquantified benefits cancel out the recommended 25 percent reduction.²⁰ So after spending most of the study leaving out unquantified benefits, because they are, in fact, unquantified, suddenly they throw them in as a sort of fudge factor to keep their numbers up.

The last bar in Figure 6 shows that benefits fall to \$0.71 if we remove the fudge factor and adjust the benefits down by 25 percent as the literature recommends. At this point, California is losing about 30 percent of every dollar invested in universal preschool.



Most of the benefits attributed to preschool are due to kids receiving increased lifetime earnings (and taxes paid) from increased education.

B. Ignored Costs

The advocates of universal preschool are weakest when it comes to examining the costs of their proposals. Where the weaknesses of the benefits of universal preschool focused on the sensitivity of different assumptions, the problems with the costs focus on significant expenses that advocates of government-run universal preschool simply overlook.



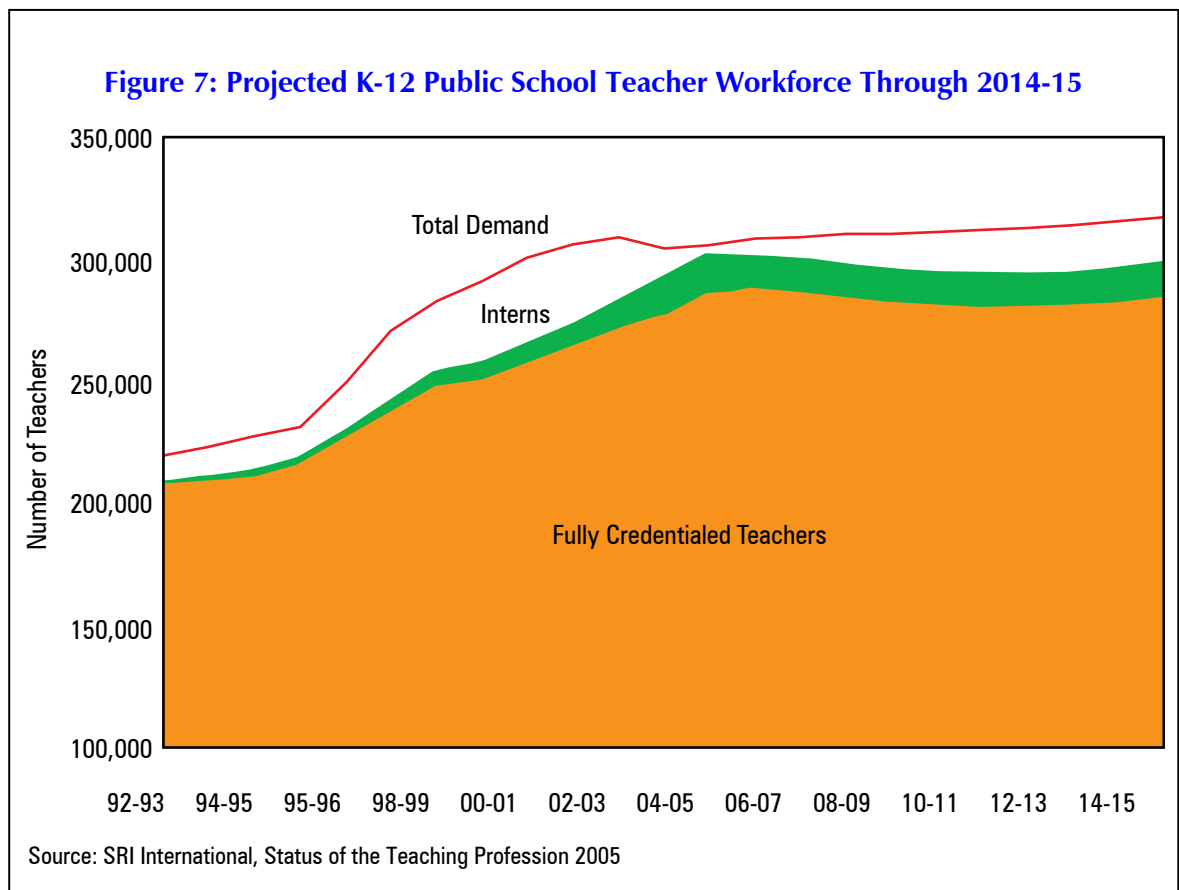
In the RAND report, the opening summary, the three core chapters, the conclusion, and the appendices are largely devoted to detailing the tangible and intangible benefits of the program, only a few pages (out of 192) explore the actual costs. In fact the costs are significant, including:

- A requirement to hire thousands of new certified teachers to staff the new preschools, when California cannot find enough qualified teachers to fully staff the state’s K-12 school system;
- Substantial administrative costs to govern the new preschool system;
- The negative economic impact of the new taxes planned to fund the preschool system; and
- A number of other costs.

Because the RAND study provides such limited cost data, analyzing it in any detail is difficult. While they provide page after page of detailed data and analysis of benefits, their cost analysis relies heavily on an unpublished study that is “forthcoming.” Verification of their numbers is impossible from their own study—they provide a single aggregate number, based on the unpublished study.²¹

In addition to being unclear about how they estimate the more straightforward costs, the advocates of government-run universal preschool ignore many other important costs.

In addition to being unclear about how they estimate the more straightforward costs, the advocates of government-run universal preschool ignore many other important costs.



For example, currently California is in the midst of a teacher shortage which is predicted to worsen over the next ten years. The report for California on the *Status of the Teaching Profession 2005* stated that more than 20,000 California teachers were “underprepared” and did not hold a full teaching credential (See Figure 7). The good news is that this number is down from the high of 42,000 underprepared teachers in 2000-2001. The bad news is that the report predicts the number of underprepared teachers is going to start rising again, increasing by almost 75 percent by the mid 2010s.²² The teacher population is getting hit with a double whammy: the back end of the pipeline is wide open with more teachers retiring and the front end of the pipeline is choked off with declining enrollments in teacher programs as fewer people select teaching as a profession.

Proposition 82 requires credentialed teachers to fulfill its mandate. If it passes, the current “dire teacher shortage” would become even more severe as thousands of new teachers will be needed.

The RAND study ignores all the costs associated with increasing the staffing of credentialed teachers.

The RAND study ignores all the costs associated with increasing the staffing of credentialed teachers. These costs fall into three large buckets: start-up costs, ongoing recruitment and training costs, and industry-wide wage increases. The RAND authors are explicit about ignoring the first category, the start-up costs. When presenting the cost data, the study assumes that the program is fully staffed and does not include the start-up costs. However, California’s experience with the Classroom Size Reduction Act of 1996, which overnight created the need for 18,000 additional teachers, demonstrates that these start-up costs are not trivial. California had to spend hundreds of millions of dollars to fill the pipeline with new teachers. In 2000-2001 recruitment costs alone zoomed to \$150 million²³.

Proposition 82 advocates recognize the need for these startup costs and have built them into the initiative. \$700 million, almost one-third of the Prop. 82 funding, is slated to go towards these start-up costs. Why did the RAND choose to leave these start-up costs out of a present value calculation for their cost-benefit analysis?

A greater oversight by RAND is that they neglect to include any costs for ongoing recruitment and training of new teachers. The study does not address the attrition rate for preschool teachers at all. The California State University system trains the majority, 55 percent, of California credentialed teachers. The RAND study does not count the additional resources that state universities would need to train additional teachers to meet the Proposition 82 mandate.

Finally, the RAND study also neglects the increase in wage costs caused by the increase in demand for additional credentialed teachers. Since we are having trouble recruiting enough credentialed teachers now, we will have to offer substantially higher salaries to recruit enough to staff the new preschool system. And contracts with existing teachers will require their salaries be bumped up

commensurately. The RAND authors do not break out costs with any degree of precision but because teaching is a labor-intensive activity, it is safe to assume that the bulk of the costs the RAND study does count are related to wages. California has the largest teacher workforce in the nation, with over 300,000 teachers. Even a small increase for the salaries of all elementary school teachers caused by an increased demand for preschool teachers could boost the costs of universal preschool by many millions of dollars.

Advocates of government universal preschool only count the costs of running a preschool itself: personnel costs like teacher and administrator salaries and benefits and non-personnel costs like learning materials and facilities. However, because Proposition 82 calls for the state government to take over most of the preschool industry in California, there would be substantial costs associated at the state administrative level. One of the biggest criticisms of the existing government school system is the bureaucratic overhead (and associated cost) required to operate it. Approximately 60 percent of the state's education spending is spent in the classroom—the rest goes to overhead.²⁴ The same will be true for a universal preschool system.

The RAND study also neglects the increase in wage costs caused by the increase in demand for additional credentialed teachers.

These costs are entirely absent from the RAND estimates. The RAND authors fail to include costs for state and local government bureaucrats who would need to oversee and administer the program. Interestingly, one of the authors whom the RAND study relies for other figures specifically calls out several of these costs:²⁵

- Monitoring for quality assurance
- School-readiness assessment and third-party evaluation
- Governance

Yet when it comes time to conduct their cost-benefit analysis the RAND study completely ignores these costs. By assuming away any costs associated with statewide administration or bureaucracy, the RAND study boosts the benefit-cost ratio. To pretend that the bureaucratic overhead of a statewide universal preschool program is comparable to the private market flies in the face of common sense. Perhaps the most telling critique here is Proposition 82 itself. Proposition 82 does not ignore these costs and, at \$2.3 billion annually, has costs 35 percent higher than the RAND study's projected cost of \$1.7 billion²⁶. It is, at best, disingenuous for Proposition 82 advocates to point to the RAND study as economic justification for their proposal without noting the discrepancies between Proposition 82 funding and the RAND study cost projections.

Perhaps the largest of these overlooked costs is the cost of taxation. Because taxing an activity raises the price of engaging in that activity, the higher the tax, the less you get of that activity. For example, if California increases marginal taxes on income, people will want to work in California

less. The RAND study, however, is based on the static assumption that sophisticated, high-income taxpayers will not change their behavior in response to an 18 percent increase in their marginal tax rate. This is ridiculous. An enormous body of empirical evidence demonstrates that taxpayers do respond to changes in the tax code and that people at high income levels are much more responsive to changes in their tax rates.²⁷ This research is particularly pertinent to Proposition 82 because it proposes increasing taxes on high income families by nearly one-fifth. California already has the highest marginal tax rates in the country. And these are the people who are the most able to move to another state or use the most sophisticated of investments in shifting their savings to non-taxable places. We would expect more wealthy people to move themselves or their money to states like Nevada that have zero percent marginal income taxes.²⁸

Costs that are hard to quantify are still costs.

Advocates of government run universal preschool are quick to quantify and count the most difficult to quantify benefits of their proposal, but when it comes to difficult to quantify costs, they all but leave them out of their analysis. For example, quantifying the costs of eliminating choice in the preschool market is all but impossible. The movement towards a one-size-fits-all preschool market operated by the state would virtually eliminate choice in the preschool market according to the RAND study's predictions. Preschool and daycare businesses like Denise Allen's family-owned and operated center in Clovis, California, and the services she has provided families for more than two decades will disappear. Parents and children will have fewer options. Preschools will go out of businesses. Should this be counted as a cost of the proposal? The RAND authors estimate this cost to be non-existent.

Families will have fewer options and will suffer as a result.

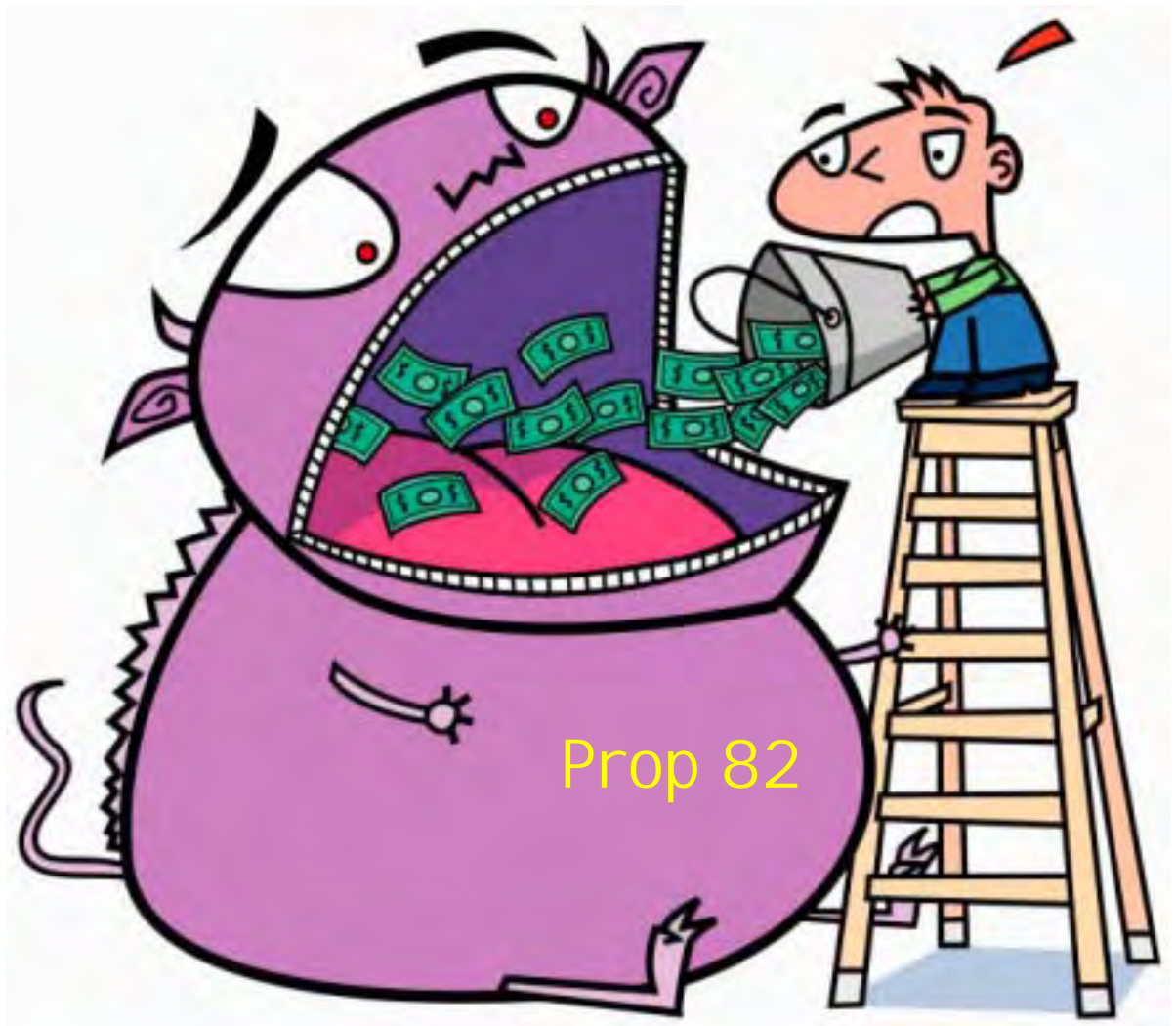


In addition, there are other difficult to measure costs of universal preschool. These range from less controversial issues such as increased spread of sicknesses²⁹ (which impacts not only the children but their parents), to more controversial issues about whether preschool may actually have long-term psychological pathologies including poor work habits, inferior peer relationships, aggression, and disobedience. The literature is full of competing studies touting

either the wonders or pathologies of daycare, which are easily extrapolated to preschool.³⁰ Certain studies find reduced social skills of middle-class children who attend preschool: cooperation, sharing, and engagement in classroom tasks all suffered after prolonged preschool attendance. Under our current system parents are able to choose what type of preschool education they

consider best for their children, but under a system of universal preschool that decision would be made by the state.

We cannot quantify these potential costs for a full net cost benefit analysis given the information the RAND study provides. However, difficult to quantify costs are still costs and we can tell that the costs of the new teachers and administering the system will be very large. Ignoring those costs is crucial to RAND's conclusion that universal preschool would be a great deal for California taxpayers.



Part 4

Conclusion

Despite a sophisticated looking analysis that attempts to show the economic gains from universal preschool, RAND's arguments do not hold up under scrutiny. If the RAND authors turned in their report in one of our San Jose State classes, we would have to give them a failing grade. The most critical elements of a cost benefit analysis are identifying the actual costs and benefits. On the benefits side, the authors are exhaustive in cataloguing all of the potential benefits of a state-regulated and operated universal preschool program. The problem lies in their assignment of dollar values to these benefits. Their assumptions seem unrealistic given the empirical evidence of families already enjoying preschools in the market today, as well as the inability of the state to operate K-12 schools of consistently high quality.

The situation is reversed for the cost side of the equation. The authors have good empirical data to support their estimates of operating costs: salaries, benefits, infrastructure, and administration. But while the survey of benefits was exhaustive, the survey of costs is superficial, occupying a very small portion of the analysis. The authors omit several enormous costs, including the increased wage cost to the industry of hiring additional teachers, the economic inefficiencies of funding the program through higher marginal taxes (as Proposition 82 proposes), and the bureaucratic overhead for a new government program.

The RAND study appears to be an excellent example of a sophisticated looking cost benefit analysis that turns out to be nothing more than a rationalization for an extremely questionable policy. While their study avoids the pitfalls of naïve cost benefit analyses, its focus on benefits to the neglect of costs illustrates how cost benefit analysis can easily be misused. Enormous costs have been completely ignored by the authors, while others have been acknowledged but dismissed.

Moreover, the assumptions used to justify benefit numbers include numerous heroic and unbelievable assumptions that bias the results of the study. On the heroic side, it is difficult to believe that at a minimum the government can build a quality preschool program statewide that is twice as good as current government programs and matches the quality (and the diversity) of private programs. On the unbelievable side, we find it questionable that our current system provides low-income families zero benefits. The authors appear to have cherry-picked the most optimistic studies of preschool programs, ignoring the less stellar results of large-scale, long-term programs like Head Start. In the end, the advocates of universal government-run preschool fail to make a good economic case. The enormous social engineering experiment that the RAND study favors would hurt preschool providers, hurt families, and hurt children.

About the Authors

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Related Reason Studies

Assessing Proposals for Preschool and Kindergarten: Essential Information for Parents, Taxpayers, and Policymakers, by Darcy Olsen and Lisa Snell, Policy Study #344, May 2006. http://www.reason.org/ps344_universalpreschool.pdf

The Case Against Universal Preschool in California, by Lisa Snell, February 2006, Policy Brief #42, http://www.reason.org/pb42_universalpreschool.pdf

School Violence and No Child Left Behind: Best Practices to Keep Kids Safe, by Lisa Snell, Policy Brief #330, January 2005, <http://www.reason.org/ps330.pdf>.

Special Education Accountability: Structural Reform to Help Charter Schools Make the Grade, by Lisa Snell Policy Study #319, July 2004 <http://www.reason.org/ps319.pdf>

Endnotes

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- ¹ Lynn A. Karoly & James H. Bigelow, *The Economics of Investing in Universal Preschool Education in California* (Santa Monica: RAND Corp., 2005). http://www.rand.org/pubs/monographs/2005/RAND_MG349.pdf
- ² *California State Voter Information Guide, Proposition 82*, http://www.ss.ca.gov/elections/vig_06/prop82_entire.pdf
- As the guide indicates, initial cost of Prop. 82 is \$2.1 billion in 2006-2007 and growing to \$2.6 billion in 2010-2011 when it is fully operational. Present value of the \$2.6 billion is \$2.3 billion.
- ³ Of the six measures of quality where California public preschools fall short, the authors only specify two “key quality standards”: requiring a bachelor’s degree for preschool teachers and a standard, comprehensive curriculum for preschoolers to learn. Yet does a lack of a universal curriculum mean that preschools are bad? Does a lack of a universal curriculum in higher education mean that our university system is failing students?
- ⁴ RAND Corp., “The Costs and Benefits of Universal Preschool in California,” Research Brief (2005). http://www.rand.org/publications/RB/RB9118/RAND_RB9118.pdf
- ⁵ Karoly et al. *supra* note 1, at i.
- ⁶ W. Steven Barnett, Debra J. Ackerman, and Kenneth B. Robin, *California’s Preschool for All Act (Proposition 82): A Policy Analysis*, (New Brunswick: National Institute for Early Education Research, May 2006).
- ⁷ Twenty seven percent of preschool age children attend public preschool programs and twenty two percent attend private preschool programs. Karoly et al. *supra* note 1, at 15.
- ⁸ Karoly et al. *supra* note 1, at 9-11.
- ⁹ See note 3 above.
- ¹⁰ Karoly et al. *supra* note 1, at 60.
- ¹¹ Karoly et al. *supra* note 1, at 16.
- ¹² Karoly et al. *supra* note 1, at 58.
- ¹³ Stephanie Golin, *The Price of School Readiness: A Tool for Estimating the Cost of Universal Preschool in the States*, (Washington, D.C.: Institute for Women’s Policy Research, 2004), p. 8
- ¹⁴ Karoly et al. *supra* note 1, at 41.
- ¹⁵ Karoly et al. *supra* note 1, at Table 2.4, 38-39.

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- ¹⁶ Karoly et al. *supra* note 1, at 107.
- ¹⁷ Karoly et al. *supra* note 1, at 53-54.
- ¹⁸ Karoly et al. *supra* note 1, at Table 3.6, 110.
- ¹⁹ Karoly et al. *supra* note 1, at 100. Aos, Steven, Roxanne Lieb, Jim Mayfield, Marna Miller, and Annie Pennucci, *Benefits and Costs of Prevention and Early Intervention Programs for Youth*, (Olympia, Wash.: Washington State Institute for Public Policy, September 17, 2004) represents the literature on this self selection problem
- ²⁰ Karoly et al. *supra* note 1, at 100-101.
- ²¹ Karoly et al. *supra* note 1, at 88.
- ²² Esch, C. E., Chang-Ross, C. M., Guha, R., Humphrey, D. C., Shields, P. M., Tiffany-Morales, J. D., Wechsler, M. E., and Woodworth, K. R., *Status of the Teaching Profession 2005*, (Santa Cruz, California: Center for the Future of Teaching and Learning; 2005), p. 18.
- ²³ Esch et al *supra* note 22, at 6.
- ²⁴ Jason Hill and Frank Johnson, *Revenues and Expenditures for Public Elementary and Secondary Education* (NCES 2005-353R). U.S. Department of Education, Washington DC: National Center for Education Statistics.
- ²⁵ Golin, *supra* note 13, at 15.
- ²⁶ Karoly et al. *supra* note 1, at 102. The increased funding in Prop. 82 covers a variety of costs that the RAND study either ignored or dismissed, including training costs, start-up costs, and reserve funds.
- ²⁷ Saez (2004) explored the elasticity of taxable income of high income families and found elasticities also vary dramatically in the short-run, where they are much higher, relative to the long-run. Emmanuel Saez, "Reported Incomes and Marginal Tax Rates, 1960-2000: Evidence and Policy Implications," Working Paper 10273, National Bureau of Economic Research, (January 2004). <http://www.nber.org/papers/w10273>
- ²⁸ It is worth emphasizing that Proposition 82 proposes raising marginal tax rates on the highest earners, who are the most mobile in their ability to change political jurisdictions and the most sophisticated of investors in shifting their savings to non-taxable vehicles.
- ²⁹ Brownstein, John S., Ken P. Kleinman, Kenneth D. Mandl, "Identifying Pediatric Age Groups for Influenza Vaccination Using a Real-Time Regional Surveillance System," *J. American Journal of Epidemiology*, Oct. 1, 2005; vol 162: pp 686-693.
- ³⁰ Mary Eberstadt's *Home Alone America: The Hidden Toll of Day Care, Behavioral Drugs, and Other Parent Substitutes* (Sentinel HC, November 2004) is just one book with countless references to this body of literature.



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