**FINAL REPORT ON THE REVIEWS OF THE**
*REPORT ON THE COST OF EDUCATION* **IN NEW JERSEY**

By

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The following is a synthesis of three separate reviews of the *Report on the Cost of Education* (herein after referred to as *NJ Report*). This recently released report was conducted for New Jersey to identify what it would cost for the base program and adjustments for at-risk students, English-language learning (ELL) students and students with disabilities to achieve to the New Jersey proficiency standards. This Final Report is based on and draws from reviews conducted by myself, Lawrence O. Picus, a national school finance expert and professor in the School of Education at the University of Southern California, and Joseph Olchefske, a national expert on the weighted student formula, former superintendent of schools in Seattle and currently Managing Director in the school district consulting practice at the American Institutes for Research in Washington, D.C.

Each review on which this Final Report is based runs from 10-15 pages, and does not include extensive lists of references. Since both Picus and I used our evidence-based (EB) approach to school finance adequacy as a framework for reviewing the *NJ Report*, I refer readers to one of the most recent version of the evidence-based approach for citations under girding the comments on the specific issues addressed below (Odden, Picus, Archibald, Goetz, Mangan and Aportela, 2006). In addition, this review also draws from my experience analyzing school finance in New Jersey, both for a governor's commission in the early-1990s and as the Court Master for the Remand Judge in the 1997 and 1998 New Jersey Supreme Court actions in New Jersey education finance. Finally, since the NJ Report bases its recommendations on the professional judgment approach, this Final Report refers only to the comments in the reviews on those recommendations. This Final Report also draws heavily from my own review, with added commentary on the various specific issues that are drawn from the Picus and Olchefske reviews.[1]

The Final Report has five parts:

- An overview of different approaches to school finance adequacy

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[1] This final report also refers at times to tables in the December 2006 *NJ Report* and at other times to updated tables in the report, which were sent to the author on January 12, 2007. I hope the different references do not confuse the reader; the report seeks to be clear if when it is referencing tables and numbers in the *NJ Report* and when it references updated tables and numbers, which I have included as attachments to this Final Report.

- An assessment of the specific resource recommendations for the base program from the professional judgment panels
- An assessment of the recommendations from the professional judgment panels for at-risk and ELL students (we were not asked to review the recommendations for students with disabilities)
- Comments on the specific base figure and student weights that are recommended
- Some comments on how New Jersey can move forward in redesigning and recalibrating its school finance structure.

**Approaches to School Finance Adequacy**

Over the last decade, states have has moved from a focus on school finance equity to that of adequacy, as courts and legislatures interpret the education clauses of state constitutions (thorough and efficient in New Jersey) to require that the school finance system must provide each district, school and student an "adequate" level of resources. Adequate is generally defined as a level of funding that would allow each district and school to deploy a range of educational programs and strategies that would provide each student an equal opportunity to achieve to the state's education performance standards. To identify what that level of fiscal resources is, states, as well as non-profit organizations and coalitions of school districts suing states to insure adequate funding, have contracted with school finance experts to determine what an adequate education system would cost.

Four major methods exist to determine school finance adequacy, each with their own advantages and limitations: cost function, professional judgment, successful schools/districts, and evidence-based [see Odden (2003) for an overview of these various approaches].

The successful districts and cost function approaches provide a number for the adequate expenditure per pupil level (and sometimes adjustments for various pupil needs) but do not suggest how those dollars should be used. By contract, the professional judgment and the evidence-based approaches specify in some detail a set of programs and strategies for prototypical elementary, middle and high schools, as well as configurations of the central office, operations and maintenance and transportation functions, arguing that the recommendations reflect adequate resources. The professional judgment approach uses the professional knowledge of panels of educators to identify the recommended programs and strategies, while the evidence-based approach uses evidence from research and best practices to frame its recommendations. In all cases, moreover, although starting with a set of core recommendations, the evidence-based approach also has teams of state policymakers as well as education leaders and practitioners review the recommendations and modify and tailor them to the unique conditions, cultures, desires and requirements of the particular state. The final set of strategies and their resource needs are the basis of the cost figures.

The evidence-based approach to school finance adequacy has been used in Kentucky, Arkansas (in 2004 as the basis of a new school finance law and in 2006-07 to recalibrate

that law), Arizona, Wyoming (in 2005 and 2006 to recalibrate the school finance formula), Washington and Wisconsin, with varying levels of expenditures necessary to bring these states to adequate funding levels. The recommendations from the evidence-based approach have been used in Arkansas and Wyoming to restructure those states' school finance structures.

As just noted, the basic idea of evidence-based studies is to identify school-based programs and educational strategies that research has shown to improve student learning. Although the rigor of the evidence supporting the effectiveness for each recommendation varies, this approach only includes recommendations that are supported by either solid research evidence or best practices. Although the degree of effectiveness of any individual recommended program can be debated, as can the sum total of all the recommendations, the fact is that the evidence-based approach includes many strategies that both education researchers and practitioners argue should be part of any high performance school (see, for example, Stringfield, Ross & Smith, 1996) and which were included in the "illustrative budgets" for the Abbott districts in New Jersey in 1998.

**Assessment of the PJP Recommendations for the Base Program in New Jersey**

The *NJ Report* included two approaches to determining what a thorough and efficient education would be in New Jersey – a version of a Professional Judgment Panel (PJP) approach and a Successful Districts approach. As stated above, the recommendations were based solely on the PJP recommendations and thus this Final Report will focus on the reviews' assessments of those recommendations. Although the PJP panels created prototypical schools for various different sizes of districts and schools, I will concentrate my comments here on the recommendations for the schools in the large districts, as the comments would also apply to the schools in the moderate and small districts.[2]

I am also attaching a Table 1 from the Picus review; this table identifies the staffing recommendations made in the *NJ Report* and the corresponding staffing recommendations made by his calculations of the evidence-based model.

**Class size, core teachers and specialist teachers**. First, I would like to comment on the issues of class size, core teachers and specialist teachers. Core teachers are those who teach mathematics, science, history, English/language arts/writing, and world language in secondary schools, and the grade level teachers in elementary schools. Specialist teachers provide instruction in art, music, physical education, family and consumer education, career technical education, etc. However, the PJP recommendations do not explicitly recommend a class size or a number of core or specialist teachers. That omission makes it difficult to make substantive comments on the numbers of teachers recommended for the prototypical elementary, middle and high schools. Thus, I will attempt to estimate the class size and class schedule organizational assumptions under

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[2] I do no see any problem with using prototype schools to show how the resource proposals would look in schools. The prototypes are used as a way to communicate the nature of all the recommendations, which if adopted, are then applied to the student numbers and specific demographics of each individual school and district in the state.

girding the PJP recommendations in order to comment on the numbers of teachers recommended.

For the prototypical elementary school of 400 students,[3] the PJP recommended 22 teachers and 5 other teachers for a total of 27 teacher positions. For the previous (CEIFA I believe and the "illustrative budgets for the Special Needs Districts) the class sizes were for 21 students; this would equate to 19 classroom teachers. Assuming a 6 hour school day with teachers providing instruction for 5 hours, another 20 percent of teachers, or about 4 more, would be needed for art, music, physical education and other specialist teachers, for a total of 24 teachers, below that recommended. In our evidenced-approach, however, we recommend class sizes of 15 for all grades K-3 and 25 for grades 4 and 5; this averages to 18 students across all grades K-5. This would produce 22.22 classroom teachers for the 400 student school (400/18 =22.22). Again assuming a 6 hour day with each classroom teacher instructing for five hours, an additional 20 percent of teachers for specialist subjects would be needed, or an additional 4.44 teachers. That would equal 26.66 total teachers or about 27, which is exactly what the PJP recommended. So, the EB model would support that number of teachers for the prototypical elementary school.

For the middle school, the EB model recommends a class size of 25. At 600 students, a class size of 25 would require 24 classroom teachers. Assuming a 6 period day with teachers instructing for just 5 periods, the model would require an additional 20 percent or 4.8 rounded to 5 more specialist teachers for a total of 29 teachers, substantially under the 43 recommended. Some middle schools, however, have a seven period day with teachers providing instruction for just five periods, with one period for individual planning and preparation and one for collaborative work with teacher teams, thus providing for two periods of specialist subjects. That would require an additional 5 teachers or a total of 34 teachers, still under the 43 recommended. At a class size of 20 and a six period day, the total number of teachers needed would be 36; at a class size of 20 with a seven period day and each teacher providing instruction for 5 periods, the total number of teachers required would be 42 (30 regular classroom teachers and 40% or 12 more or 42), which is very close to the 43 recommended. Thus, if New Jersey wants to support a class size of 20 in middle schools with a seven period day, the numbers recommended by the PJPs are about right.

Using this same logic, the numbers of teachers for the high school of 760 students would be:
- At class sizes of 25 and a six period day, 30.4 plus 20% more or about 36.4
- At class sizes of 25 and a seven period day, 30.4 plus 40% more or about 42.5
- At class sizes of 25 with a 90 minute block schedule in a 6 hour day, so 4 blocks with teacher providing instruction for three blocks, 30.4 plus 33% more or about 40.5.

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[3] I am assuming that the prototype elementary school enrollment figure includes a full grade of kindergarten students attending for a full day program. If not, the EB model always recommends full-day kindergarten for all eligible students and I would recommend that the New Jersey model also include provision for full day kindergarten.

All these numbers are below the recommended number of 60 teachers.

For class sizes of 20, the calculations would be the following:

- 38 plus 20 % more (7.6) or about 45.6 teachers
- 38 plus 33%more (~13) or about 51 teachers
- 38 plus 40 % more (~15) or 53 teachers
- 38 plus 60 % more (   ~23) or about 61 teachers.

It seems that by our logic of class size, number of periods and teachers teaching for 5 periods, the model provides sufficient teachers for an 8 period day, with class sizes of 20 and teachers providing instruction for 5 periods.  The model also could assume smaller classes for some subjects, but the above logic also could hold.

By comparison, our evidence-based model usually recommends class sizes of 25 for middle and high schools, with a six period day for middle schools and thus 20 percent more teachers from core classroom teachers, and 33% more for high schools for a block schedule.  Many PJPs in other states, however, including states in which I have worked, argue for the 7 period middle school day, and many also argue for class sizes of 20 in both middle and high schools.

Both Picus and Odden, thus, concluded that the recommendations for core and specialist teachers, which were labeled teachers and other teachers in the *NJ Report*, met their standards for adequacy.

Olchefske did not address the above numbers but recommended that rather than combine the overall recommendations for elementary, middle and high schools into a "weighted average" base figure for each K-8 and K-12 district, the state should attach a base expenditure figure to each elementary, middle and high school student, and let the student "carry" that differential grade level resource level to whatever school (district) the student attended.  That approach would make the differences in resources across school levels more transparent.  To a large degree, the proposed NJ system accomplishes the same goal, but if students crossed district boundaries to attend a school outside of his or her home district, they would carry the weighted average base expenditure per pupil figure rather than the specific figure for their school level.

Olchefske also suggests that elementary students, particularly those in grades K-2, be weighted at a higher level, which is different from practice in New Jersey and other Northeastern states to provide more resources for high school students.  As the report indicates above in the discussion of core and specialist teachers, though, the New Jersey recommendations for teachers in elementary schools actually are sufficient to provide class sizes of 15 in grades K-3 versus 25 in the other grades, as well as the full complement of specialist teachers.  So the intent of the Olchefske recommendation is accomplished, but it is not transparent in the way the recommendations have been formulated.

**Substitute Teachers.** The substitute recommendation of five days for each teacher is what the EB model also recommends. The daily rate of $100 per day, however, seems low. That daily pay figure was recommended in Arkansas, where overall salary levels are much lower than in New Jersey. I would guess that New Jersey districts must pay more than $100 a day to get qualified substitutes; the daily figure should be raised to a more adequate number.

**Other staffing levels.** The librarian, media aides and technology specialist recommendations are all quite close to what the EB model recommends, as are the principal, assistant principal and clerical recommendations. Actually, the AP recommendation is a bit lower in the EB model and is usually challenged by PJPs in other states and often increased to about the levels in the New Jersey proposed model. A major argument is that the EB model for about the same sized high school should be augmented with an assistant principal position that also would cover the duties of athletic director.[4]

I am somewhat confused by the standards that were used for the guidance counselor recommendations. The standard for secondary counselors from the American School Counselors Association, which the EB model uses, is one counselor for every 250 students. The middle school ratio in the recommendations is 1 guidance counselor for every 240 students; the ratio for the smaller high school of 760 students is 1 for every 152 students and the ratio for the larger high school, which usually has more issues because of size, is larger at 1 per every 182 students. It might be better to use one standard for all middle schools and perhaps a different but common standard for each high school. But it should be clear that the recommendations for guidance counselors in the *NJ Report* more than meet the ratios used in the EB model.

The recommendation for the nurse at 1 in each of the 400 student elementary school, the 600 student middle school and the 760 student high school is fine; the standards from the school nursing associations is one for every 750 students, but one per school up to a school with 760 students is acceptable. The recommendation of 2 nurses for the larger 1640 student high school is then also on the mark.

**Additional pupil support staff.** The evidence-based model also recommends additional pupil support staff, such as social workers, family liaison, psychologists, etc. based on at-risk student concentration, on the assumption that the greater the concentration of students from lower income backgrounds, the greater the need for non-academic pupil supports. The formula is one additional FTE position for every 100 at-risk student, which is usually measured as the number of students eligible for free or reduced price lunch, sometimes augmented for high schools due to the under reporting of such eligibility by high school students. This would provide up to an additional 4 positions in the prototypical elementary school with 100 percent concentration, 6 positions for a similarly situated middle school, and 7.6 positions for a similarly high poverty concentration high

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[4] For both the middle and high school prototypes, the EB model argues that the recommended principal position plus the instructional facilitator positions would comprise the "instructional team." Such a team structure includes more resources for direct instructional leadership (2.25 instructional facilitators for the prototypical 450 student middle school and 3 for the prototypical 650 student high school).

school.  Using the average staff salary and benefits in the updated *NJ Report* of $63,000 (which I argue below might be too low), would produce an extra amount of $630 per at-risk student for additional pupil support staff.

The EB model provides a larger level of what are called "<u>supervisory aides</u>," who are aides to provide lunch help, recess help, help with getting students on and off the buses and hall monitoring.  The recommendation is for 2 FTE aides positions for the 400 student elementary school, about 3 for the 600 student middle school and about 3 for the 600 student high school, somewhat higher than the recommended figures.

**Professional development.**  The EB model has a more ambitious and more specified set of <u>professional development</u> recommendations.  After a review of the professional development literature on the elements of professional development that make it work, i.e., lead to change in teachers' instructional strategies that lead to improvements in student learning, the EB model recommends:

- 1 instructional facilitator/coach for every 200 students in a school
- at least ten pupil-free days a year for teacher professional development
- $100 per pupil for trainers, which could be either central office trainers or external consultants as trainers.

In a prototypical school of 500 students and 30 staff, that equates roughly to about $475 per pupil, assuming 2.5 instructional coaches at $63,000 each (($315 per pupil), five extra days for teachers to insure a total of 10 professional development days (each extra day at $200 per day) and 30 professional staff in the school ($60 per pupil), and the $100 per pupil for trainers.

The professional development recommendations in the updated Report suggest $1350 per personnel.  Assuming 30 personnel teacher positions in the school, that equates to about $81+ per pupil, substantially below what the EB model recommends.  The report also recommends $1500+ per personnel for the central office portion of professional development, which I am guessing is the trainer portion, and equates to about $130 per pupil, or a total of ~$211 per pupil.

Since good professional development is a critical factor in having schools boost student learning, I would strongly recommend that New Jersey enhance the professional development recommendation to the level recommended in the EB model, which is about twice that of the *NJ Report*.  My guess is that the *NJ Report* excludes the instructional coaches that are the element of professional development that makes it work, i.e., helps teachers actually change their instructional practice.  Picus made these same comments about strengthening the professional development resources.  Further, the instructional facilitators/coaches were included in the "illustrative school budgets" in the 1997-98 <u>Abbott</u> deliberations.

**Teacher salary and benefit levels.**  Since <u>teacher salary levels</u> are a key "price" in determining the cost of the *NJ Report's* recommendations, I need to make a couple of

comments on the price selected.  I was somewhat surprised that the updated  *NJ Report* (see attached Table III-6) used the median teacher salary level ($52,476).  Nearly all adequacy studies with which I am familiar have used an average teacher salary or determined a teacher salary by some market comparison procedure.  A median salary level will very likely be lower than the average teacher salary level.  Further, the Chambers GCEI is normed at the average district so using it to adjust the median salary will not produce a sufficient adjustment in those districts with salaries above the median.  I would suggest either shifting to an average teacher salary and using the GCEI or readjusting the GCEI to a 1.0 index for the median district in order for it to produce adequate adjustments to insure comparability of teacher salaries across districts.  The former is there preferred approach.

Picus also agreed with these comments on teacher salary levels; in addition, he suggested that the GCEI, while generally appropriate as a geographic price adjustment if average salary levels instead of mean salary levels are used, is quite out of date and should be updated to provide a more current indication of price differences for teachers with similar qualities across New Jersey districts.

Assuming that the state funds the state portion of teacher retirement and FICA from a different source of funds, the 20 percent benefit rate seems adequate, assuming that the 20 percent figure includes sufficient resources for a good health plan, which in Wisconsin is a high quality HMO plan.  But it would be best to identify the cost of an "adequate" health care plan to determine whether in fact the 20 percent figure is adequate.  There could be questions raised about some of the other salary figures, and whether the 20 percent benefit figure is adequate for staff positions with salaries less than teachers.

The $52,476 teacher salary with 20 percent for benefits added equals about $63,000.

**Central office**.   The *NJ Report's* Central Office recommendations are more detailed than the EB report.  However, I used the EB model for central office and operation and maintenance staff that was developed in Washington (Odden, Picus, Goetz, Mangan & Fermanich, 2006).  Those recommendations were based on a prototypical school district of about 3500 students, about the same as the New Jersey moderately sized district.  The staff positions for the central office – superintendents, directors, coordinators, clerical, custodians, groundskeepers, etc. – in the two reports are quite similar.  However, the *NJ Report* has substantially more psychologists, social workers and LDTC staff at the central office.  However, the EB model has additional student support resources triggered by an at-risk student count, and those extra resources could account for the difference in social workers.  But the *NJ Report* does have more psychologist resources, and it could be that the EB model is short on psychologist resources.  Without extensive additional analysis, it would not be appropriate to suggest any detailed changes in the *NJ Report's* central office resources.  The recommendations in the *NJ Report* are quite similar overall to the recommendations in the EB model, which are based on a variety of standards for staffing such positions.

**Books, instructional materials, equipment and technology**. The report also includes dollar per pupil recommendations for books, instructional materials, equipment and technology. Picus also compared the EB dollar per pupil figures with the figures recommended in the *NJ Report* and would agree with the following comments. The *NJ Report's* per pupil figures are as follow:

| School Level | Supplies and Materials | Equipment | Technology | Assessment |
|---|---|---|---|---|
| Elementary | $324 | $54 | $162 | $22.22 |
| Middle | $345 | $50 | $150 | $22.22 |
| High | $432 | $81 | $162 | $22.22 |

The EB model has estimated costs for instructional materials and supplies, including textbooks and library books, technology that includes equipment, and assessment, largely funds for ongoing teacher formative assessments. The EB recommendations, which assume a six year textbook adoption cycle, are as follows:

| School Level | Instructional Materials and Supplies | Technology and Equipment | Formative Assessment |
|---|---|---|---|
| Elementary | $140 | $250 | $25 |
| Middle | $140 | $250 | $25 |
| High | $175 | $250 | $25 |

Thus, the EB model is somewhat more parsimonious for these recommendations than the *NJ Report*. Without further knowledge about the assumptions beyond the *NJ Report's* recommendations, further comment cannot be made. But using the EB figures as a definition of adequacy, we would conclude that the recommendations for instructional materials and formative assessments in the *NJ Report* are adequate.

**Student activities.** For student activities, the updated *NJ Report* recommends $54 per pupil for the elementary school, $150 for the middle school and $432 for the high school. In many states, reported student activities expenditures per pupil can average around $250 per student, which is very close to the weighted (by the number of elementary, middle and high school students) average of the *NJ Report's* recommendations. Further, there is wide variation in practice in what is and what is not reported for student activities expenditures. From what is known, it seems that the *NJ Report's* recommendations for student activities are appropriate

The EB model has not yet developed recommendations for security. Thus it is not possible for me to comment on the proposed security recommendations, except to say that they probably should vary by size of school and concentration of at-risk students, as the trend in other states is that the larger the school, and the greater the percentage of students from lower income backgrounds, the greater the need for security resources.

**Assessment of the PJP Recommendations for At-Risk and ELL Students**

The three reviewers were told that the State Department of Education will be recommending that New Jersey provide resources for a full-day preschool program for all children aged thee and four and eligible for free and reduced price lunch in all school districts.  The intent is to provide a high quality preschool program defined as:

- full day (6 hours) for 180 days per year
- class size of no more than 15 students
- a certified teacher (with P-3 certification)
- a classroom aide with 60 undergraduate credits
- an age-appropriate curriculum such as that in High Scope.

When fully implemented, this preschool program would be the best state-supported preschool program in the country and should provide a sound, high quality set of experiences designed to have all students ready for school when entering kindergarten. The EB model also recommends such a pre-school program, although preschool, even though effective in boosting student learning, often is not required by the state's education clause which most typically refers to children aged 5-17.

The *NJ Report* has five recommendations for <u>at-risk</u> and <u>ELL</u> students: one recommendation for ELL students and then, for at risk students, a major programmatic recommendation, coupled with recommendations after school programs and summer school programs.[5]

**ELL.**  For ELL, the *NJ Report* recommends 1.1 positions for the 28 ELL students in the elementary school, 2 positions for the 43 ELL students in the middle school, and 3 positions for 72 ELL students in the large high school.  This equates to about 1 teacher position for every 25 elementary ELL students, every 22 middle school ELL students and every 24 high school ELL students.  As Picus also noted, the EB model recommends 1 teacher position for every 100 ELL students, considerably less than the New Jersey Report.  The EB report also notes that most ELL students are at-risk and also qualify for at-risk funding, suggesting that both pools of funds be combined for providing services to ELL students.  The EB model ELL recommendation would equate to about $630 per ELL student, using the *NJ Report's* $63,000 figure for a teacher position.[6]  This would produce a lower extra weight than the 0.38 to 0.42 ELL weights for ELL students recommended in the updated Table Y, suggesting that the recommended weights are certainly adequate from the EB perspective.

**At-Risk Students.**  The NJ Report contains specific recommendations regarding at-risk students in three areas.  A comparison of the recommendations in these areas with the EB model is:

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[5] We were not asked to review the recommendations for special education and students with disabilities.
[6] These approximate dollar per pupil figures include only teacher resources and thus do not include any central office or operation and maintenance resources that might be attached to such programs.

- **Primary Programmatic Recommendation -** The primary in-school programmatic recommendation for at-risk students in the *NJ Report* is for reading specialists and instructional aides. The formula seems to be 1 aide and 1 teacher position for every 20 at-risk students in the elementary school, though the formula is used only up to 160 at-risk students, an at-risk pupil count at which the *NJ Report* adds 1 social worker and 1 parent liaison position. The resources for at-risk students appear to be constant for schools that have at-risk pupil counts above 160 students. For the middle school, the formula is 1 position for every 60 at-risk students up to 240 at risk students, at which pupil count point a parent liaison position is added. The resources remain the same for numbers and concentrations of at-risk students above 240 students. The formula at the large high school level is 1 position for every 82 at risk students, but capped at 656 at risk students, at which point, however, a parent liaison position is added.

  The primary recommended intervention in the EB model is 1-1 tutoring; the formula at all three levels is for 1 tutor position for every 100 at-risk students, although the at-risk pupil count is a count of students eligible for free OR reduced price lunch, whereas the New Jersey at-risk pupil count covers just eligibility for free lunch. Thus, it is somewhat difficult to compare the two sets of recommendations.

- **Extended day and summer school.** The EB model figures for extended day and summer school programs are above those of the recommended model in the *NJ Report*. Like the *NJ Report's* model, the EB model provides resources for extended day and summer school programs for about 50% of all students labeled as "at risk," which again is almost always students eligible for free or reduced price lunch, on the assumption that not all such students will need or will attend such programs. The EB model provides summer school at a ratio of 1 teacher for every 15 eligible students, which would be 1 teacher for every 30 at-risk students, and for a summer program that could last 8-9 weeks, or about the length of a school quarter. At $63,000 a teacher, that would equate to $63,000/(30 at risk pupils) times 25% of the teacher annual salary and benefits (as the length of the program is a quarter of the school year) or $525 per at-risk student. This number is above the $400 per pupil that the *NJ Report* recommends. The formula is essentially the same for extended day programs, which would be $525 per at-risk student, which is much closer to the recommended $480 per at-risk student, though again the EB definition of at-risk students includes more such students.

- **Extended year.** This recommendation was intended only for students with disabilities.

The EB model, then, recommends $630 for every at-risk student (defined as free *and* reduced price lunch) for tutoring, $525 per at-risk student for extended day, $525 per at-risk student for summer school, and $630 per at-risk pupil for additional pupil support, or a total of $2310 per at-risk student.

This figure would produce an extra weight smaller than the updated 0.40 to 0.56 recommended in Table Y for K-12 districts in the *NJ Report*, but it is not clear how the *NJ Report* used the *Report's* programmatic recommendations to then construct the at-risk weight that is recommended. It seems that the *NJ Report* also added some central office resources to all the at-risk programs to produce a dollar figure that was then turned into a pupil weight.

However, Picus, Olchefske and Odden all questioned using a count of students eligible for just free lunch to identify the number of at-risk students. All three of us recommended that New Jersey define at-risk students as those eligible for either free or reduced price lunch. We further recommended that there be no cutoff in resources above some arbitrary definition of "high" at-risk concentration. For the 400 student elementary school, the EB model would produce 2 teacher positions for a school with a 50 percent concentration, and 4 positions at the 100 percent concentration; as noted above, the EB model also would add 4 additional pupil support positions at the 100 percent concentration level, for a total of 8 position compared to the report's 10 positions. The EB model would provide considerably more at-risk resources for the middle and high schools with higher concentrations of at-risk students.

The updated report's Table Y actually recommends that the at-risk weight for very large districts be lower (0.40) for the schools with very high, or highest, at-risk concentrations. This recommendation simply defies best practice and common understanding across the country; if anything the weight should be the same, if not higher, in higher concentration schools (although we do not necessarily recommend a higher weight for higher concentration). We also would argue that a weight of 0.56 for the low concentration, 0.52 for moderate and 0.56 for high concentration represent differences that are so small that they are really not meaningful differences.

I would recommend that the state adopt one common at-risk weight of between 0.50 and 0.55 for each at-risk student regardless of concentration of poverty in the school. I would further recommend that that weight be used for small, moderate, large and very large K-12 districts. Again the distinctions of the weights in Table Y by district size are minuscule and it would simply be easier and more transparent to just adopt one weight. An at-risk weight of ~0.50 would simplify the issue and provide ~50 percent more resources for every at-risk child, regardless of school or district attended. It is important to note that this would represent one of the largest weights for at-risk students anywhere in the country, about twice the "typical" weight for such students in other systems (Odden & Picus, 2007).[7]

Though this level of recommended resources for the lower concentration of at-risk students are quite generous, the capping of resources for at-risk students for numbers and concentrations above what the Report defines as "high" is curious, as the assumption across the country is that, at the least, the same ratio of resources should be provided, points that Picus and Olchefske also made in their reviews

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[7] One reason the weights differ is that the base spending figures from which they are calculated also differ; the report comments on those base differences in the next section.

Olchefske raises the issue of whether the weights for at-risk student should increase as the concentration of such students rises in a school. He makes the argument that the federal Title 1 program has an implicit concentration factor and refers to claims made in other states and districts that the higher the concentration of at-risk students the more complex the education issues facing the schools. He simultaneously raises the counter-argument, though, which is that in a weighted student funding formula, the dollars are meant to follow the child, and having the level of resources attached to a child vary based on the school or district attended would violate the principle of a common weight. Olchefske agrees with this counter-argument and suggests as an alternative that New Jersey could consider allocating its federal Title 1 program, which provides resources on top of all state and local resources, in ways that provide increasing resources to schools as the concentration of at-risk students increases.

I also would note that even if there is no concentration factor, a common weight triggers more resources for schools with higher numbers and concentrations of at-risk students For example, take the 600 student prototypical middle school. If it has 200 at-risk students, the recommended weight of 0.5 against a base expenditure of $8500 (I am rounding for simplification), would produce an extra $850,000 for the school (0.5 times $8500 times 200 students). If it had 400 at-risk students, the weight would produce an extra $1.7 million for the school; and if the school had 600 at-risk students, it would receive an additional $2.55 million so the level of additional dollars would rise substantially as the number of at-risk students, and therefore the concentration of those students, rose.

Given these comments above, it appears that the *NJ Report's* extensive reading help resources combined with the extended day and summer school resources, and the weights that have been calculated, are approximately at the same level and perhaps a bit higher than those resources in the EB model. As a result, I suggest leaving them as is with the following modifications:

- Alter the definition of at-risk from just students eligible for free lunch to students eligible for both free and reduced price lunch, a recommendation that all three reviewers made.
- Require that districts and schools to report on the ways those resources are used, to describe the specific programs provided, and to identify the effects, so that over time the state could create a data base on the most effective extended year, extended day and summer school programs, and combinations thereof.
- It would represent the core substance of the Report's recommendations to adopt a uniform 0.50 weight for each at-risk student regardless of school or district attended.

**Comments on the Specific Base per Pupil Expenditure Figure and Related Pupil Weights[8]**

Table III-8A in the updated report presents the base per pupil spending for small, moderate, large and very large K-12 districts, and Table III-8B presents the same numbers for very small and small K-8 districts. It is not clear whether these base spending numbers are intended to be used across the six different types of districts, or whether they would be used to produce one new K-8 and one new K-12 base per pupil spending level, as in the original *NJ Report*.

However, if the six different numbers are intended to be used in a new formula, it is not clear exactly how they would be used. For example, the base per pupil spending for the very small K-8 district (225 students) is $10,422, and for the small K-8 district (495) is $8,167. What is not clear is what the spending figure would be for a district of 300, or 350, or 400 or 450 students. It could be that the higher number base spending per pupil figure would be for districts with a range of pupils, let say up to 400 students, and then the lower number would be used for K-8 districts with greater 400 students. But that type of "step" function produces huge differences in resources allocated to districts with 399 students (who each would trigger $10,422) and districts with 401 students (who each would trigger only $8,167). If the intent is to have the formula recognize legitimate diseconomies of scale, New Jersey would be wise to produce a smoother curve that would gradually reduce the base spending per pupil from the $10,422 for a K-8 district with 225 students down to $8,167 for the K-8 district of 495 students; for districts with fewer than 225 students the number could stay constant at $10,422 and for districts with more than 495 students the base spending number could stay constant at $8,167.

Similar comments could be made for the differences in the base spending per pupil for the K-12 districts, although it could be argued that the differences between the moderate, large and very large districts are modest. Further, it might make the system simpler and more transparent, and still adequate, to simply provide a common base figure, someplace between $8400 and $8500 for those districts, and then "curve" up the number to $9100 for the 1000 student K-12 district. But if the state intends to use the different base spending per pupil figures in Table III-8A for a new formula, it would need to develop curves to connect the different expenditure figures, or at the "break" or "step" points, districts would be treated very differently depending on whether they were just under or just over the step point, a situation that the state would not want to produce.

At the same time, if the state had differentiated numbers, then one could argue that there could be very different at-risk and ELL weights as well, and the system would become fairly complicated quite quickly.

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[8] The following refers to the numbers in the updated tables. However, the numbers would be higher if average salaries were used to calculate costs, which we all recommend. The general points in this section would remain the same but the base per pupil figures would rise.

In brief, my recommendations on the base spending level and the weights are:

- View the differences in the base spending per pupil of a couple of hundred dollars between moderate sized districts (2,500 students), large districts (5,240 students) and very large districts (13,161 students) as insignificant, and set the base spending per pupil figure, as suggested above, between $8400 and $8500.[9]
- Use one common at-risk weight of 0.5 and one common ELL weight of 0.4 for all K-12 districts, even if the base spending per pupil figure varied  for some of the smallest K-12 districts.
- Use the 0.5 at-risk weight for all the K-8 districts as well, which is quite close to the different at-risk weights recommended for those districts in Table Y.

Although the ELL weights vary quite dramatically for the K-8 districts, from 0.55 for the small and 0.85 for the very small K-8 districts, the differences complicate the system.  If the programmatic recommendations have a strong rationale, those different weights can be justified.  But if not, it might be simpler if the state could determine a common ELL weight for K-8 districts as well.

**Final Comments**

All three reviewers expressed general support for the recommendations contained in the *NJ Report*.  Both Picus and Odden, using the EB frame, concluded that the recommendations in the *NJ Report* (with the exceptions noted above) met nearly all of the common standards of the EB approach.  Olchefske, using his frame for creating a weighted student formula, also expressed clear support for the general recommendations in the *NJ Report*.  We believe the recommendations could serve as the basis for a new, and simpler school finance formula.

The Odden and Picus reviews drew heavily from the Evidence-Based model approach to school finance adequacy.  Although that approach uses a fairly consistent set of recommendations to begin conversations within a state, the final recommendations from using the EB approach are often substantially different from the initial core recommendations.  Put differently, in all states, through a set of interactive meetings with state policymakers and local practitioners the core EB recommendations are tailored to the specific needs, preferences, practices and requirements of each state in which it is used.  That means that although Odden and Picus used the core recommendations from the EB approach in reviewing the resource recommendations in the *NJ Report*, they would fully expect that if the EB approach actually had been used in New Jersey as it has been used in other states, then the final EB New Jersey recommendations could vary from the numbers, ratios and figures that they used in their reviews, and which are used in this Final Report and in Table 1.  In some cases the differences would be minor but in other cases the differences could be major.  Thus, their reviews indicate in general how

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[9] All numbers here are illustrative and use the numbers in the report.  As noted above, we would recommend re-costing the recommendations at average salary rather than mean salary figures, which would increase all base per pupil spending figures.  However, since the weights are a ratio, they would not change substantially when different teacher salary figures were used.

the EB approach could be used to assess the resource and funding recommendations in the *NJ Report*, but the conclusions should be viewed as indicative rather than as the final word.

There are different views across the country on what constitutes adequate resources for schools. Without going into detail, some professional judgment panels would recommend more resources than those in *NJ Report* and some would recommend less (see http://www.wcer.wisc.edu/cpre/ and follow the links for the Wisconsin Adequacy Task Force and the link to the results from various professional judgment panels). The question of adequacy does not lend itself to a simple resolution. The resolution does not lie in trying to conduct the "perfect" adequacy study, since there is no such thing as a perfect adequacy study. Instead, the resolution of the adequacy question needs to be addresses in two primary ways.

The first is to ask the question: what academic strategies could be deployed by school districts with the recommended resources? I would argue, that if: (1) the at-risk pupil count were changed to cover all students eligible for free or reduced price lunch, (2) the professional development recommendations were augmented to provide 1 instructional facilitator/coach for every 200 students, and (3) the salaries to cost out the recommendations were changed to average rather than mean salaries, then the resources recommended in the NJ Report would be adequate for:

- All of the resources in the evidence-based approach to adequacy, which were the resources needed by schools in Washington and Wisconsin to double student performance (see Odden, Picus, Archibald, et al., 2006 and Fermanich, Mangan, Odden, Picus, Gross & Rudo, 2006)
- All of the resources in the "illustrative" school budgets that were discussed so thoroughly in the 1997-1998 school finance debates in New Jersey
- Enhanced versions of all of the comprehensive school designs that were part of the New American Schools or created since then (see, for example, Stringfield, Ross & Smith, 1996)
- The Knowledge is Power Program (KIPP), which is an urban focused comprehensive school design that has been quite successful across the country and that I have been told has 50 percent more resources than the average school in a state (which in the New Jersey recommendations would be covered by the 0.5 at-risk weight.).

Since the proposed resources (with the suggested augmentations) are sufficient for any school or district to deploy the above strategies, it can be argued that if such recommendations were adopted , then New Jersey would be providing adequate base resources and adequate extra resources for at-risk and ELL students wherever they happened to attend schools, whether in the Abbott districts or not.

The second resolution to the adequacy question is, again, not to conduct the perfect adequacy study. Instead, the second resolution is to conduct two types of analyses in New Jersey which would seek to link resource needs to instructional improvement

strategies. The first would be to conduct analyses of schools and districts that had dramatically improved student performance (which in other studies we label doubling student performance) and to determine what their instructional improvement strategies were, what the resource requirements of those instructional improvement strategies were, and how all of the schools resources were used by a more detailed version of the line items in Table 1 (see Odden, Archibald, Fermanich and Gross, 2002 for a framework for this type of resource use analysis). The purpose of this analysis would be to identify the resource needs of schools and districts successful in boosting student learning, but in the context of specific instructional improvement strategies.

The second would be to study the same issues but in schools and districts that have not been successful in improving student performance; the goal would be to array how they used their resources by the same resource-use framework and to understand what their instructional improvement strategies were.

Both types of studies would need to be conducted in districts and schools across the full range of Group A through J districts. From both studies, the state could then begin to understand what a range of successful instructional improvement strategies were and what the resource needs of those strategies were. With the results, the state could then assess the finance formula and determine if it needs recalibration to ensure that all districts and all schools had adequate resources to deploy effective and successful instructional improvement strategies.

These types of studies could be mounted simultaneously with a new school funding system, with both being implemented in the 2007-2008 school year. The ultimate point is that, to move forward on school finance in the context of improved student achievement, the state needs a better understanding of how resources are being used at the local school level, how those resource use patterns are related to instructional improvement strategies and whether those instructional improvement strategies are producing the student achievement increases that are desired. These issues are not resolved with either the adequacy numbers in the *NJ Report* or the EB numbers or a new and different adequacy study, or a new funding formula. These issues would only be addressed with analysis of them at schools and districts, and then use of the findings both to identify a set of instructional improvement strategies that are effective and to calibrate whatever funding model is in place to support those more effective instructional improvement strategies. Such efforts would work to move New Jersey forward. I would recommend that these issues be put on the table whatever the state decides to do about the funding model.

**Table 1**
**Detailed Comparison of Evidence Based and Professional Judgment Approaches**
**Based on NJ PJP Results for Large K-12 School Districts**

| Row No. | Standard | Elementary (K-5) | | Middle (6-8) | | High School (9-12) | |
|---|---|---|---|---|---|---|---|
| | | EB | New Jersey | EB | New Jersey | EB | New Jersey |
| **School Characteristics** | | | | | | | |
| 1 | Number of Students | 400 | | 600 | | 1,640 | |
| 2 | Special Education (Mild and Moderate) | 55 | | 83 | | 226 | |
| 3 | At Risk (40%) | 160 | | 240 | | 656 | |
| 4 | LEP (4.4%) | 18 | | 26 | | 72 | |
| | | | | | | | |
| **Personnel Resources** | | | | | | | |
| 5 | Core Teachers<br>K-3   1:15<br>4-12   1:25 | K-3 – 17.8<br>4-5 – 5.3<br>Total – 23.1 | 22 | 24 | 43 | 65.6 | 128 |
| 6 | Specialist Teachers<br>20 % Elem. & middle school<br>33% high school | 4.6 | 5 | 4.8 | 0 | 13.12 | 0 |
| 7 | Instructional Facilitators or Coaches (1 per 200 students) | 2 | 0 | 3 | 0 | 8.2 | 0 |
| 8 | Tutors for struggling students (In NJ staff are identified for Extended school year,) | 1.6 | 8 | 2.4 | 6 | 6.6 | 8 |
| 9 | ELL or LEP teachers (1 per 100 ELL or LEP) | 0.18 | 1.1 | 0.26 | 2.0 | 0.72 | 3.0 |
| 10 | Extended Day | 1.3 | | 2 | | 5.5 | |
| 11 | Summer School | 1.3 | | 2 | | 5.5 | |
| 12 | Extended School Year | | 1.5 | | 3 | | 6 |

**Table 1 (Continued)**
**Detailed Comparison of Evidence Based and Professional Judgment Approaches**
**Based on NJ PJP Results for Large K-12 School Districts**

| Row No. | Standard | Elementary (K-5) | | Middle (6-8) | | High School (9-12) | |
|---|---|---|---|---|---|---|---|
| | | EB | New Jersey | EB | New Jersey | EB | New Jersey |
| 13 | Instructional Aides (Total for NJ) | 0 | 2.2 | 0 | 3.0 | | 8.0 |
| 14 | Alternative Schools | | | | | 1 Asst. Principal plus 1 teacher position for every 8 students, funding to meet all staffing needs | Not addressed |
| 15 | Children with Disabilities | See Text | | | | | |
| 16 | Gifted and Talented Education | $25 per student in school | 0.2 plus $50/GATE pupil | $25 per student in school | | $25 per student in school | |
| 17 | Vocational Education | | | | | Additional weight of .33 for students in voc ed programs | Weight of .206 for county vocational high schools |
| 18 | Substitutes | 10 days per teachers | 10 days per teachers | 10 days per teachers | 10 days per teachers | 10 days per teachers | 10 days per teachers |

**Table 1 (Continued)**
**Detailed Comparison of Evidence Based and Professional Judgment Approaches**
**Based on NJ PJP Results for Large K-12 School Districts**

| Row No. | Standard | Elementary (K-5) | | Middle (6-8) | | High School (9-12) | |
|---|---|---|---|---|---|---|---|
| | | EB | New Jersey | EB | New Jersey | EB | New Jersey |
| 19 | Pupil Support Staff | 1 for every 100 poverty students: 1.6 | 7.0 | 1 for every 100 poverty students plus 1.0 guidance/250 students 4.8 total | 10.5 including extended school year | 1 for every 100 poverty students plus 1.0 guidance/250 students 11.1 total | 19.9 including extended school year |
| 20 | Non-instructional aides | 2 | 0.6 | 2 | 0.5 | 3 | 0 |
| 21 | Librarians and media specialists | 1 | 1 | 1.5 | 1 | 6 | 2 |
| 22 | Principal | 1 | 1 | 1 | 1 | 1 | 1 |
| 23 | Assistant principal | 0 | 0 | 0 | 1 | 1.7 | 3 Plus 1 AD and 4 Dept. chairs |
| 24 | Clerical | 2 | 2 | 2 | 3 | 8.2 | 9.0 |

# Table 1 (Continued)
## Detailed Comparison of Evidence Based and Professional Judgment Approaches
## Based on NJ PJP Results for Large K-12 School Districts

| Row No. | Standard | Elementary (K-5) | | Middle (6-8) | | High School (9-12) | |
|---|---|---|---|---|---|---|---|
| | | EB | New Jersey | EB | New Jersey | EB | New Jersey |
| **Dollars per pupil resources** | | | | | | | |
| 25 | Professional development | $100 per pupil plus costs for Inst. Facilitators, planning and prep time and 10 summer days | $1,250 per personnel plus $50 per student | $100 per pupil plus costs for Inst. Facilitators, planning and prep time and 10 summer days | $1,250 per personnel plus $50 per student | $100 per pupil plus costs for Inst. Facilitators, planning and prep time and 10 summer days | $1,250 per personnel plus $50 per student |
| 26 | Technology | $250 per pupil | $150 per student plus 1 tech spec. positions identified above in pupil support staff | $250 per pupil | $150 per student plus 2 tech spec. positions identified above in pupil support staff | $250 per pupil | $150 per student plus 2 tech spec. positions identified above in pupil support staff |
| 27 | Instructional materials /supplies and materials (NJ definition may differ from EB) | $140 per pupil | $300 per pupil plus additional for LEP and special ed | $140 per pupil | $300 per pupil plus additional for LEP and special ed | $175 per pupil | $320 per pupil plus additional for LEP and special ed |
| 28 | Student Activities | $200 per pupil | $50 per pupil | $200 per pupil | $150 per pupil | $200 per pupil | $400 per pupil |

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## TABLE III-4A

## NON-PERSONNEL COSTS NEEDED FOR A HYPOTHETICAL *ELEMENTARY* SCHOOL IN A *K-12* DISTRICT IN NEW JERSEY

| | | K-8 | | K-5 | |
| --- | --- | --- | --- | --- | --- |
| | | Small District | Mod. District | Large District | Very Large District |
| (1) | Instructional Supplies/Materials | $324/stu. | $324/stu. | $324/stu. | $324/stu. |
| (2) | Equipment | $54/stu. | $54/stu. | $54/stu. | $54/stu. |
| (3) | Technology | $162/stu. | $162/stu. | $162/stu. | $162/stu. |
| (4) | Student Activities | $54/K-5 stu. $162/6-8 stu. | $54/stu. | $54/stu. | $54/stu. |
| (5) | Professional Development | $1,350/staff member | $1,350/staff member | $1,350/staff member | $1,350/staff member |

## TABLE III-4B

## NON-PERSONNEL COSTS NEEDED FOR A HYPOTHETICAL *MIDDLE* SCHOOL IN A *K-12* DISTRICT IN NEW JERSEY

| | | 6-8 | | |
| --- | --- | --- | --- | --- |
| | | Mod. District | Large District | Very Large District |
| (1) | Instructional Supplies/Materials | $345/stu. | $345/stu. | $345/stu. |
| (2) | Equipment | $54/stu. | $50/stu. | $50/stu. |
| (3) | Technology | $162/stu. | $150/stu. | $150/stu. |
| (4) | Student Activities | $162/stu. | $150/stu. | $150/stu. |
| (5) | Professional Development | $1,350/staff member | $1,350/staff member | $1,350/staff member |

# TABLE III-4C

## NON-PERSONNEL COSTS NEEDED FOR A HYPOTHETICAL *HIGH* SCHOOL IN A *K-12* DISTRICT IN NEW JERSEY

|  |  | 9-12 | | | |
|---|---|---|---|---|---|
|  |  | Small District | Mod. District | Large District | Very Large District |
| (1) | Instructional Supplies/Materials | $432/stu. | $432/stu. | $432/stu. | $432/stu. |
| (2) | Equipment | $81/stu. | $81/stu. | $81/stu. | $81/stu. |
| (3) | Technology | $162/stu. | $162/stu. | $162/stu. | $162/stu. |
| (4) | Student Activities | $648/stu. | $621/stu. | $432/stu. | $432/stu. |
| (5) | Professional Development | $1,350/staff member | $1,350/staff member | $1,350/staff member | $1,350/staff member |

# TABLE III-4D

## NON-PERSONNEL COSTS NEEDED FOR A HYPOTHETICAL *ELEMENTARY* SCHOOL IN A *K-8* DISTRICT IN NEW JERSEY

|  |  | K-8 | |
|---|---|---|---|
|  |  | Very Small District | Small District |
| (1) | Instructional Supplies/Materials | $324/stu. | $324/stu. |
| (2) | Equipment | $54/stu. | $54/stu. |
| (3) | Technology | $162/stu. | $162/stu. |
| (4) | Student Activities | $108/stu. | $54/K-5 stu. $162/6-8 stu. |
| (5) | Professional Development | $1,350/staff member | $1,250/staff member |

# TABLE III-7A

## SCHOOL-LEVEL COSTS FOR *SMALL K-12* SCHOOL DISTRICTS BASED ON THE WORK OF THE NEW JERSEY PROFESSIONAL JUDGMENT PANELS

|  | Elem. School | High School | Total |
|---|---|---|---|
| (1) Enrollment | 720 | 320 | - |
| (2) Base Spending | | | |
| Regular* | $6,330 | $9,821 | $7,404 |
| Other Programs for Students with No Special Needs: | $0 | $0 | $0 |
| (3) Added Spending for Special Student Populations** | | | |
| Special Education: | | | |
| - Mild | $1,327 | $1,056 | $1,246 |
| - Moderate | $10,346 | $10,625 | $10,432 |
| - Severe | $33,480 | $25,627 | $31,124 |
| At-Risk Students: | | | |
| - Low Concentration | $5,319 | $2,442 | $4,433 |
| - Moderate Concentration | $5,535 | $1,615 | $4,329 |
| - High Concentration | | | |
| - Very High Concentration | | | |
| LEP Students: | $3,374 | $3,737 | $3,487 |

\*      Basic base spending includes school level personnel salaries and benefits, supplies and materials, and other expenditures.

\*\*     Costs are shown per student in the program.

# TABLE III-7B

## SCHOOL-LEVEL COSTS FOR _MODERATE K-12_ SCHOOL DISTRICTS BASED ON THE WORK OF THE NEW JERSEY PROFESSIONAL JUDGMENT PANELS

|  | Elem. School | Middle School | High School | Total |
|---|---|---|---|---|
| (1) Enrollment | 400 | 600 | 760 | - |
| (2) Base Spending | | | | |
| Regular* | $6,505 | $6,959 | $8,448 | $7,188 |
| Other Programs for Students with No Special Needs: | $0 | $0 | $0 | $0 |
| (3) Added Spending for Special Student Populations** | | | | |
| Special Education: | | | | |
| - Mild | $1,056 | $1,293 | $484 | $925 |
| - Moderate | $11,485 | $10,699 | $7,803 | $10,213 |
| - Severe | $40,700 | $26,978 | $36,182 | $36,246 |
| At-Risk Students: | | | | |
| - Low Concentration | $6,277 | $2,000 | $1,687 | $3,912 |
| - Moderate Concentration | $5,825 | $2,951 | $1,775 | $3,949 |
| - High Concentration | | | | |
| - Very High Concentration | | | | |
| LEP Students: | $2,674 | $3,146 | $2,830 | $2,833 |

\* Basic base spending includes school level personnel salaries and benefits, supplies and materials, and other expenditures.

\** Costs are shown per student in the program.

**TABLE III-7C**


**SCHOOL-LEVEL COSTS FOR *LARGE K-12*
SCHOOL DISTRICTS BASED ON THE WORK OF THE
NEW JERSEY PROFESSIONAL JUDGMENT PANELS**

|  | Elem. School | Middle School | High School | Total |
|---|---|---|---|---|
| (1) Enrollment | 400 | 600 | 1,640 | - |
| (2) Base Spending |  |  |  |  |
| Regular* | $6,505 | $6,959 | $8,043 | $7,090 |
| Other Programs for Students with No Special Needs: | $0 | $0 | $0 | $0 |
| (3) Added Spending for Special Student Populations** |  |  |  |  |
| Special Education: |  |  |  |  |
| - *Mild* | $1,056 | $1,293 | $775 | $1,027 |
| - *Moderate* | $11,485 | $10,699 | $5,243 | $9,289 |
| - *Severe* | $40,700 | $26,978 | $25,516 | $33,095 |
| At-Risk Students: |  |  |  |  |
| - *Low Concentration* | $6,277 | $2,000 | $1,425 | $3,779 |
| - *Moderate Concentration* | $5,825 | $2,951 | $1,681 | $3,870 |
| - *High Concentration* | $5,915 | $3,040 | $1,635 | $3,917 |
| - *Very High Concentration* |  |  |  |  |
| LEP Students: | $2,674 | $3,146 | $2,830 | $2,833 |

\*    Basic base spending includes school level personnel salaries and benefits, supplies and materials, and other expenditures.

\*\*    Costs are shown per student in the program.

**TABLE III-7D**

**SCHOOL-LEVEL COSTS FOR _VERY LARGE K-12_**
**SCHOOL DISTRICTS BASED ON THE WORK OF THE**
**NEW JERSEY PROFESSIONAL JUDGMENT PANELS**

|  | Elem. School | Middle School | High School | Total |
|---|---|---|---|---|
| (1) Enrollment | 400 | 600 | 1,387 | - |
| (2) Base Spending | | | | |
| Regular* | $6,505 | $6,959 | $8,199 | $7,144 |
| Other Programs for Students with No Special Needs: | $0 | $0 | $0 | $0 |
| (3) Added Spending for Special Student Populations** | | | | |
| Special Education: | | | | |
| - _Mild_ | $1,056 | $1,293 | $685 | $1,008 |
| - _Moderate_ | $11,485 | $10,699 | $5,527 | $9,448 |
| - _Severe_ | $40,700 | $26,978 | $26,533 | $33,144 |
| At-Risk Students: | | | | |
| - _Low Concentration_ | $6,277 | $2,000 | $1,741 | $3,866 |
| - _Moderate Concentration_ | $5,825 | $2,951 | $1,864 | $3,919 |
| - _High Concentration_ | $5,915 | $3,040 | $2,878 | $4,299 |
| - _Very High Concentration_ | $4,120 | $2,203 | $2,139 | $3,057 |
| LEP Students: | $2,674 | $3,146 | $2,747 | $2,806 |

\*      Basic base spending includes school level personnel salaries and
       benefits, supplies and materials, and other expenditures.

\*\*    Costs are shown per student in the program.

# TABLE III-7E

## SCHOOL-LEVEL COSTS FOR *VERY SMALL K-8* SCHOOL DISTRICTS BASED ON THE WORK OF THE NEW JERSEY PROFESSIONAL JUDGMENT PANELS

|  | Elem. School | Total |
|---|---|---|
| (1) Enrollment | 225 | - |
| (2) Base Spending | | |
| Regular* | $7,237 | $7,237 |
| Other Programs for Students with No Special Needs: | $0 | $0 |
| (3) Added Spending for Special Student Populations** | | |
| Special Education: | | |
| - Mild | $4,625 | $4,625 |
| - Moderate | $17,152 | $17,152 |
| - Severe | $74,211 | $74,211 |
| At-Risk Students: | | |
| - Low Concentration | $4,366 | $4,366 |
| - Moderate Concentration | $5,743 | $5,743 |
| - High Concentration | | |
| - Very High Concentration | | |
| LEP Students: | $8,817 | $8,817 |

\*      Basic base spending includes school level personnel salaries and benefits, supplies and materials, and other expenditures.

\*\*     Costs are shown per student in the program.

# TABLE III-7F

## SCHOOL-LEVEL COSTS FOR *SMALL K-8*
## SCHOOL DISTRICTS BASED ON THE WORK OF THE
## NEW JERSEY PROFESSIONAL JUDGMENT PANELS

|  | Elem. School | Total |
|---|---|---|
| (1) Enrollment | 495 | - |
| (2) Base Spending |  |  |
| Regular* | $5,975 | $5,975 |
| Other Programs for Students with No Special Needs: | $0 | $0 |
| (3) Added Spending for Special Student Populations** |  |  |
| Special Education: |  |  |
| - *Mild* | $2,945 | $2,945 |
| - *Moderate* | $14,659 | $14,659 |
| - *Severe* | $49,869 | $49,869 |
| At-Risk Students: |  |  |
| - *Low Concentration* | $5,127 | $5,127 |
| - *Moderate Concentration* | $5,390 | $5,390 |
| - *High Concentration* |  |  |
| - *Very High Concentration* |  |  |
| LEP Students: | $4,463 | $4,463 |

\*      Basic base spending includes school level personnel salaries and benefits, supplies and materials, and other expenditures.

\*\*     Costs are shown per student in the program.

**TABLE III-8A**
**_K-12_ DISTRICT-LEVEL COSTS BASED ON THE WORK OF THE**
**NEW JERSEY PROFESSIONAL JUDGMENT PANELS**

| | | Small District | Mod. District | Large District | Very Large District |
|---|---|---|---|---|---|
| (1) | Enrollment | 1,040 | 2,560 | 5,240 | 13,161 |
| (2) | District Level Spending | | | | |
| | **Basic** | | | | |
| | Administration | $977 | $534 | $533 | $376 |
| | Plant M & O | $587 | $521 | $488 | $493 |
| | Other* | $126 | $284 | $355 | $322 |
| | Special Needs | | | | |
| | *Special Education* | $3,980 | $5,558 | $4,914 | $5,022 |
| | *At-Risk Students* | | | | |
| | Low Concentration | $0 | $42 | $247 | $782 |
| | Moderate Concentration | $0 | $42 | $335 | $416 |
| | High Concentration | | | $291 | $403 |
| | Very High Concentration | | | | $307 |
| | *ELL Students* | $0 | $549 | $693 | $676 |
| (3) | Total Spending | | | | |
| | Base Spending | | | | |
| | School Level | $7,404 | $7,188 | $7,090 | $7,144 |
| | District Level | $1,690 | $1,340 | $1,375 | $1,192 |
| | **Total Base Cost** | **$9,094** | **$8,528** | **$8,465** | **$8,336** |
| | Added Cost of Spec. Need Student | | | | |
| | ***Special Education*** | | | | |
| | ***Mild*** | ***$5,226*** | ***$6,483*** | ***$5,941*** | ***$6,030*** |
| | ***Moderate*** | ***$14,412*** | ***$15,771*** | ***$14,203*** | ***$14,470*** |
| | ***Severe*** | ***$35,104*** | ***$41,804*** | ***$38,009*** | ***$38,166*** |
| | ***PreSchool Disabled*** | ***$15,191*** | ***$23,792*** | ***$23,792*** | ***$23,792*** |
| | ***Extended School Year*** | ***$3,775*** | ***$3,914*** | ***$3,432*** | ***$3,589*** |
| | ***At-Risk Students*** | | | | |
| | ***Low Concentration*** | ***$4,433*** | ***$3,954*** | ***$4,025*** | ***$4,649*** |
| | ***Moderate Concentration*** | ***$4,329*** | ***$3,991*** | ***$4,205*** | ***$4,335*** |
| | ***High Concentration*** | | | ***$4,208*** | ***$4,702*** |
| | ***Very High Concentration*** | | | | ***$3,364*** |
| | ***ELL Students*** | ***$3,487*** | ***$3,383*** | ***$3,526*** | ***$3,482*** |

Includes legal, insurance, central office technology, and other items placed at
* the district level (textbooks and tuition, in some cases).

# TABLE III-8B

## <u>K-8</u> DISTRICT-LEVEL COSTS BASED ON THE WORK OF THE NEW JERSEY PROFESSIONAL JUDGMENT PANELS

|  |  | <u>Very Small District</u> | <u>Small District</u> |
|---|---|---|---|
| (1) | <u>Enrollment</u> | 225 | 495 |
| (2) | District Level <u>Spending</u> |  |  |
|  | <u>Basic</u> |  |  |
|  | Administration | $2,399 | $1,553 |
|  | Plant M & O | $666 | $519 |
|  | Other* | $131 | $120 |
|  | <u>Special Needs</u> |  |  |
|  | *Special Education* | $1,350 | $1,561 |
|  | *At-Risk Students* |  |  |
|  | *Low Concentration* | $47 | $0 |
|  | *Moderate Concentration* | $0 | $0 |
|  | *High Concentration* | $0 | $0 |
|  | *Very High Concentration* | $0 | $0 |
|  | ELL Students | $0 | $0 |
| (3) | <u>Total Spending</u> |  |  |
|  | <u>Base Spending</u> |  |  |
|  | School Level | $7,237 | $5,975 |
|  | District Level | $3,185 | $2,192 |
|  | **Total Base Cost** | **$10,422** | **$8,167** |
|  | Added Cost of <u>Spec. Need Student</u> |  |  |
|  | ***Special Education*** |  |  |
|  | ***Mild*** | *$5,974* | *$4,506* |
|  | ***Moderate*** | *$18,501* | *$16,220* |
|  | ***Severe*** | *$75,560* | *$51,430* |
|  | ***PreSchool Disabled*** | *$26,893* | *$25,895* |
|  | ***Extended School Year*** | *$4,226* | *$4,062* |
|  | ***At-Risk Students*** |  |  |
|  | ***Low Concentration*** | *$4,413* | *$5,127* |
|  | ***Moderate Concentration*** | *$5,743* | *$5,390* |
|  | ***High Concentration*** |  |  |
|  | ***Very High Concentration*** |  |  |
|  | **ELL Students** | *$8,817* | *$4,463* |

\* Includes legal, insurance, central office technology,
   and other items placed at the district level (textbooks and tuition, in some cases).

# TABLE III-6

# PRICES FOR HYPOTHETICAL
# SCHOOL AND DISTRICT RESOURCES

<u>School-Level Personnel</u>

| | |
|---|---|
| Classroom Teachers | $52,476 |
| Other Teachers | $52,476 |
| Librarians | $73,039 |
| Technology Specialists | $44,920 |
| Student Support Staff | |
|   Counselors | $75,780 |
|   Nurses | $56,732 |
|   Psychologists | $67,246 |
|   Social Workers | $59,791 |
|   LDTC | $77,242 |
| Instructional Aides | $20,290 |
| Clerical/Data Entry | $33,730 |
| Principal - Elementary | $112,259 |
| Asst. Principal - Elementary | $93,332 |
| Principal - Middle | $115,158 |
| Asst. Principal - Middle | $94,419 |
| Principal - High | $123,461 |
| Asst. Principal - High | $102,951 |
| Security Guard | $21,600 |
| Reading Specialists | $72,420 |
| Speech Pathologists | $67,460 |
| Resource Teacher/In-Class | $52,476 |
| Self Contained/Pull-Out | $52,476 |
| Occupational Therapist | $60,208 |
| Physical Therapist | $67,724 |
| Media Aides | $26,970 |
| School Directors | $100,609 |
| Parent Liasion | $23,216 |
| Lunchroom Aide | $6,235 |

**Table III-6, continued**

<u>District-Level Personnel</u>

| | |
|---|---:|
| Superintendent (Has No Asst Sup) | $135,909 |
| Superintendent (Has Asst Sup) | $169,505 |
| Assistant Superintendent | $105,810 |
| Assistants to the Superintendent | $45,900 |
| Business Administrator | $104,028 |
| Assistant Business Administrator | $62,417 |
| Purchasing Agent | $52,210 |
| Purchasing Clerk | $35,720 |
| Accountant | $62,230 |
| Facilities Manager | $102,476 |
| Business Clerks | $34,410 |
| Clerical/Data Entry | $33,730 |
| Technician | $44,920 |
| Programmer | $75,280 |
| Treasurer of Monies | $2,500 |
| Home Instruction | $162,000 |
| Director | $113,557 |
| Supervisors | $102,476 |
| Coordinators | $88,858 |

<u>Maintenance and Operations Personnel</u>

| | |
|---|---:|
| Head Custodians | $37,070 |
| Custodians | $21,230 |
| Maintenance | $35,170 |
| Grounds | $23,000 |
| Buildings/Grounds Supervisor | $41,720 |

## Inserted Language with Table Y from updated report:

In updating the Professional Judgment Panel (PJP) results to reflect the 2005-06 school year costs the Department and APA decided to re-evaluate the weights associated with special needs populations and to recalculate the formulas that are needed to estimate the costs associated with the presence of any number of special needs students in districts of any size.  The new bases and weights are displayed in Tables X & Y.  The new bases and weights reflect the changes in costs that result from using updated salaries and non-personnel costs and correcting some calculation errors discovered during the price updating.  The evaluation of the base costs and weights are still done separately for the K-8 and K-12 districts.  The underlying data, the PJP results, for the work discussed below can be seen in Tables A and B.  Table X shows the weights derived from the PJP work.

**TABLE X**
**WEIGHTS FOR DISTRICTS BASED ON THE PROFESSIONAL JUDGMENT PANEL WORK**

| | K-8 | | | K-12 | | |
|---|---|---|---|---|---|---|
| | Very Small | Small | Small | Moderate | Large | Very Large |
| *Special Education* | | | | | | |
| Speech | 0.57 | 0.55 | 0.57 | 0.76 | 0.70 | 0.72 |
| Moderate | 1.78 | 1.99 | 1.58 | 1.85 | 1.68 | 1.74 |
| Severe | 7.25 | 6.30 | 3.86 | 4.90 | 4.49 | 4.58 |
| *At-Risk* | | | | | | |
| Low | 0.42 | 0.63 | 0.49 | 0.46 | 0.48 | 0.56 |
| Mod | 0.55 | 0.66 | 0.48 | 0.47 | 0.50 | 0.52 |
| High | | | | | 0.50 | 0.56 |
| V. High | | | | | | 0.40 |
| ELL | 0.85 | 0.55 | 0.38 | 0.40 | 0.42 | 0.42 |

The weights are broken out by type of district, K-8 or K-12, and by size of district within type.  The weights are then shown separately for three categories of special education (speech, moderate, and severe), up to four levels of at-risk intensity, and  English-language learners (ELL).  Once, the weights are identified the next step is to determine how they should be applied to all districts.  To do this, the weights must be examined within district type, to determine if there is variation based on the size of district or level of at-risk concentration.

We first looked at the special education weights for the two different district types and the three different special education categories. When looking at the special education weights it appears that the weights are generally consistent by category within the district type. Given these consistencies, we decided to simply average the weights across size group for the three categories, considering the two district types separately. The only caveat to this approach was the low number for speech in the small K-12 district. Since this figure was so much lower than the figures in the other three districts it was left out of the averaging. Using the averaging approach, the special education figures results in K-8 weights of .56 for speech, 1.89 for moderate special education and 6.78 for severe special education. The K-12 weights are .73 for speech, 1.71 for moderate special education, and 4.46 for severe special education.

The cost of at-risk students was analyzed both by size of district, within type, and concentration of at-risk students. No concentration factor was apparent as part of the PJP work; in fact, the cost per-pupil went down in some cases as the concentration increased. There were differences apparent based on the size of district. Within the K-8 districts the weights for at-risk students were higher in the small district than then they were in the very small district. To address this we took the average weight for the two size groups and created a formula, based on the size of the district, that creates lower weights in small K-8 districts and higher weights as the size of the district grows. The weights are constrained at a low of .49 and a high of .65. The following formula explains the weight for K-8 at-risk students:

(Students times .0006) + .3517, with no district's weight below .49 or above .65

The K-12 districts also show a difference in weights by size but only when districts begin to reach the size of the very large hypothetical district size. The weight for the districts represented by the small, moderate and large districts is the same and it was created by using the averages of the at-risk weights for the three sizes. The weight grows in the very large district based on using the average of only the first three weights; the weight for the highest concentration seems to be far below the others and was not used. The formula for the K-12 districts follows:

(Students times .00000008) + .4406, with no district's weight below .48 or above .55

The application of the ELL weights varies by the type of district. The K-8 district weights differed by size and the following formula was created:

(Students times -0.0011) + .1.1, with no district's weight below .55 or above .85

The K-12 district's ELL weights were consistent across the size groups and the average weight of .41 was used.

The weights above are applied to the district size-adjusted base cost for every district in the New Jersey.

**Appendix to the Final Report on the Reviews of the Report on the Cost of Education in New Jersey**

- Allan Odden

- Joseph Olchefske

- Lawrence O. Picus