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Senate Bill 178 Funding Study
Student Centered Funding System

Amanda Brown, Senior Associate APA

Dr. Steve Canavero, Superintendent

Agenda

- String Theory (simplified)
  - Proposing a framework for a new student centered system of funding (SCFS)
    - The “Basic Support Guarantee”
- Overview of the APA Draft Report
  - Detail and recommendations
- Policy Framework
- Q/A

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In a Glance

- PEMDAS – Order of operations.
- Implement a new funding formula.
- Today is the start the conversation.
- APA and Department technical work.
- Time needed to transition (e.g., PA, RI, CA).
- Policy and budget implications.

What do our students need in order to be college, career, and community ready?

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@WCSDTweet

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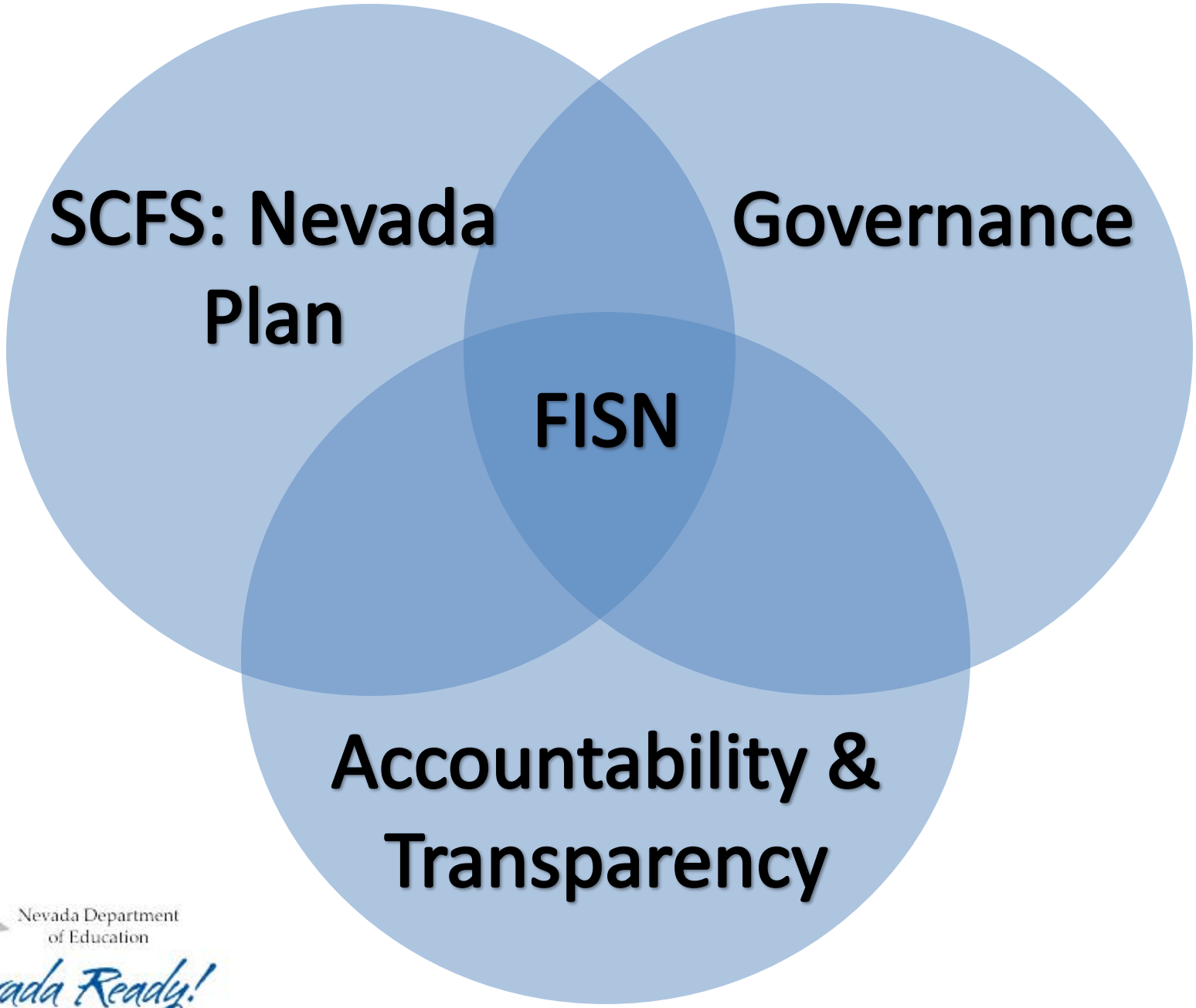

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Student Centered Funding System

- Designed around a learning environment to provide each student with an experience that leads to outcomes.
  - "the Base" "Adequacy" "Successful Schools"
- Must provide a similar experience regardless of school or geography and outcomes regardless of a student's circumstance.
  - "adjusted Base" + "Weights" "Equity"

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Base Funding and Expectations

Table 4.3: Middle School Personnel as Recommended by 2015 Study PJ Panels, Base Education

School Configuration and Size	6-8, 750 students
Recommended Average Class Size	25 to 1
Schedule	6 period day; teachers teaching 5 periods
Instructional Staff	
Teachers (Classroom)	36.0
Instruc	
Teache	
Librari	
Techno	
Instruc	
Pupil Su	
Counse	
Nurses	
Psycho	
Social	
Family	
Adminis	

Table 4.5: School-Level, Non-Personnel Costs

	Base Education
Professional Development	
Additional days per teacher	6 days
PD supplies/training costs	$100/student
Substitutes–days per teacher	10 days
Supplies, Materials, and Equipment (incl. textbooks)	Elem: $165/student Middle: $175/student HS: $350/student
Student Activities	Elem: $35/student Middle: $125/student HS: $250/student

Base District-Level Resources

Successful Schools Approach

- Schools meeting expected outcomes;
- Inventory the environment;
- Determine their funding level (i.e., Cost-Out);
- Use as the Successful Schools Costing – Out to determine Base

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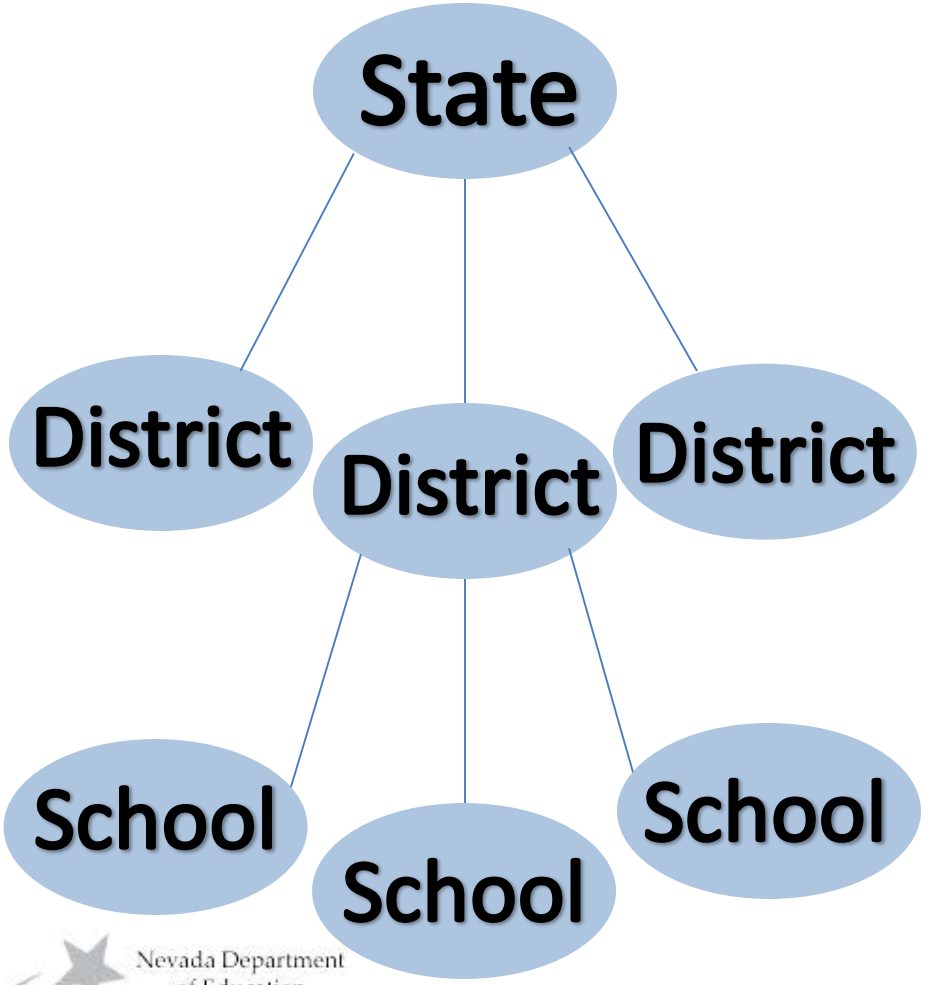
Adjusted Base and Expectations



- Differentiated by State based on external factors:
  - District Size
  - External cost pressure
  - Necessary small schools

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Weights and Equity

Regardless of Circumstance

Table 4.6: Elementary School Personnel to Support At-Risk Students

Elementary School			
Concentration	25%	50%	75%
# of At Risk Students	113 students	225 students	338 students
Instructional Staff			
Interventionists	1.0	1.0	2.0
Pupil Support Staff			
Counselors			
Psychologists			
Social Worker			
Family Liaison			

Table 4.10: District Personnel to Support At-Risk Students

District Staff	FTE
Assistant/Associate Superintendent	1.0
Director	1.0
Coordinator	2.0
Clerical/Data Entry	4.5

Table 4.12: Elementary School Personnel to Support English Learners

Elementary School			
WIDA level	L1/L2	L3/L4	L5/L6
# of English Learners	32 students	68 students	14 students
Instructional Staff			
Teachers	0.28	0.60	0.12
Instructional Facilitator (Coach)	0.28	0.60	0.12
Instructional Aides	0.56	1.19	0.25

Existing Categorical (outside Funding Model)

- Zoom (EL)
- Victory (Poverty)
- SB178 (At-Risk)
- GATE
- Special Education

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(Basic Support Guarantee)

- Establishing clear expectations for the learning environment enables…
  - Transparent connection between funding, experience (staffing/support) and outcome
  - Decision-making by State/District/Schools to achieve the learning environment and outcomes
- Increased confidence, trust and stewardship

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Responsibility

- Who is responsible for a student's experience?
  - State distributes differentiated base funding that is aligned to a set of expectations
  - District use expectations to support school need
    - Staff schools consistent with the model
  - Schools responsible to staff/purchase services to support student learning/outcomes

AUGENBLICK, PALAICH AND ASSOCIATES

APA CONSULTING

Draft Recommendations from Nevada School Finance Study

Amanda Brown, APA, and Mike Griffith, ECS

Presentation to the Legislative Committee on Education
Las Vegas, NV

August 9, 2018

Presentation Topics

- Study team
- Overview of study
- Highlights from review of current funding system in Nevada
  - National rankings
  - Stakeholder feedback
- Draft recommendations

Study Team

- The study team is led by Augenblick, Palaich and Associates (APA) partnering with the Education Commission of the States (ECS) and Picus Odden and Associates (POA).
  - APA and POA are both nationally-recognized school finance policy consulting firms that have worked across the country reviewing and developing school finance systems.
    - APA conducted a full adequacy study in Nevada on behalf of the legislature in 2006 and an update study in 2015 for the Lincy Institute at UNLV.
  - ECS' staff provides technical assistance to states with their school funding issues for over 50 years.

Overview of Study

- Updated information from the previous 2012 American Institutes for Research (AIR) study
  - National rankings of Nevada
  - Inventory of other state's school finance systems
  - Student adjustments used in comparison states
- Examined the resources needed to support at-risk, English Learners, special education, and gifted and talented students in Nevada
  - Used two adequacy approaches- evidence- based (EB) and professional judgment (PJ)
  - Also addressed the base cost per Advisory Committee feedback- through EB results and prior adequacy studies

Overview of Study

- Conducted case studies at seven successful schools in the state as part of the EB approach
- Nevada stakeholder engagement
  - Conducted online survey
  - Will conduct second online survey, educator listening sessions, and interviews with key state-level stakeholders
- Reporting and fiscal modeling
  - Draft report submitted August 1st
  - Will develop interactive model to examine fiscal impact of alternatives by September
  - Final report to be submitted on October 15th

Highlights from Review of Current System

National Rankings

- There are at least three long-running and well-regarded state-by-state assessments of the quality of state education finance systems:
  - *Quality Counts* report issued by Editorial Projects in Education, the publisher of *Education Week*,
  - *Is Funding Fair? A National Report Card* from the Education Law Center at Rutgers, and
  - National Education Association's *Rankings of the States* report.
- All three reports show Nevada ranking near the bottom among states in most measures.
- They also show that Nevada's ranking, in most cases, has not improved or gotten worse over the past one or two decades.

Highlights from Review of Current System

- *Quality Counts* analysis assigned an overall grade of C+ for the state's school finance system in 2003. By 2018 the Nevada's overall grade had fallen to a D-.
- *Funding Fair?* ranked Nevada 38th in terms of funding level in 2009, and 42nd in 2018, assigned the grade of "F" in how well funding distribution relates to poverty (as a measure of need), and effort as measured by per-capita gross state product (GSP), dedicated to funding public schools.
- *Rankings of the States* provides state-by-state comparisons of a wide range of data on students, district and school staff, and education finances.
  - At $9,258, Nevada ranked 48th in 2017 in per-pupil revenues. The national average was $13,900.
  - At 25.86 students per teacher, Nevada had the highest number of enrolled students per teacher in the country. The national average was 15.96 students per teacher.
  - Nevada ranked higher (18th) in average classroom teachers' salaries, with an average salary of $57,376.

Highlights from Review of Current System

- System reviewed in terms of being cost-based, equitable, responsive, transparent, flexible and adequate.
  - Both the 2012 AIR study team and this study team found that the current system is not meeting these principles.
- Stakeholders also asked to evaluate the current system in these areas through an online survey.
  - About 6,900 responses from educators, parents and community members.

Highlights from Review of Current System

	Poor	Average	Good	Excellent	Unsure	Number of Responses
Equitably distributes resources to school districts	54.99%	24.13%	8.93%	1.56%	10.39%	6,805
Responds to student need (differentiates funding based on at-risk, EL, or special education students)	41.07%	33.70%	14.10%	3.39%	7.75%	6,789
Responds to district characteristics (differentiates funding based on district size, location, etc.)	52.60%	26.23%	8.46%	1.49%	11.22%	6,783
Allocates resources in clear and understandable manner	62.72%	21.95%	6.61%	1.48%	7.23%	6,773
Allows flexibility in how resources are used	51.63%	27.54%	8.54%	1.64%	10.65%	6,771
Provides adequate resources	65.30%	21.37%	7.74%	1.69%	3.90%	6,743

Draft Recommendations

- The study team instead recommends replacing the existing funding system with a weighted student formula that accounts for student need and uncontrollable district characteristics.
- A new funding formula should be:
  - **Cost-based** using a base amount and adjustments for student and district characteristics determined by the resources needed to meet state standards and requirements.

Draft Recommendations

- **Responsive to student need,** through the use of adjustments, or weights, the system should provide additional resources to students based on need, such as being an at-risk, English learner, or special education student.
  - Currently, some resources for these students are allocated through categoricals.
  - A weighted formula would ensure all students that have these needs receive the same resources regardless of school.
- **Responsive to district characteristics,** through three separate adjustments: 1) a district size adjustment, 2) a comparative wage index (CWI), and 3) a necessarily small schools adjustment.
  - Currently, the state applies a basic support ratio that accounts for size, density, and cost differences by creating a relative cost factor.

Key Recommendations

- **Transparent and flexible**
  - Clear and easy for all stakeholders to understand.
  - Flexible in how districts and schools can use resources.
  - Transparency could make it easier for districts to design student-weighted systems for their school-level funding.
- **Equitable**
  - A full equity analysis was outside of the scope of this study, but the state's current system has been measured as more inequitable overtime by national publications.
  - Resources inside the system meet equity criteria, but the combination of a low level of state support and unlimited use of outside local resources may be creating inequities in actual expenditures between districts.
    - Increasing the level of state support that is equalized through the use of a cost-based funding model should begin to address this issue.

Developing Alternatives for Components of a New Funding Formula

- To determine the appropriate base amount and adjustments for a new weighted student formula, the study team considered:
  - Current funding practices in Nevada and other states.
    - National inventory, the 2012 AIR study, and the study team's updated analysis of current student need adjustments in comparison states.
  - The body of adequacy findings from the current study and prior studies conducted in Nevada:
    - The current study using the PJ and EB approaches.
    - The 2006 study conducted by APA for the legislature that used the successful schools and PJ approaches.
    - The 2015 APA PJ study for the Lincy Institute at UNLV.
  - Results of adequacy studies conducted nationally over the past 10 years.

Base Cost Recommendations

- Compared results from all cost-based Nevada adequacy data sources against current.
- Results from three accepted approaches to adequacy with two different performance targets:
  - The **Successful Schools** approach examines the expenditure data of schools that are performing better than their peers to determine an adequate level of resources to achieve that performance target.
    - In the 2006 study, this benchmark was meeting the NCLB AYP proficiency targets for 2008-09. In most test subject areas, these targets required just over half of all students to be proficient.

Base Cost Recommendations

- The **Evidence-based (EB)** approach reviews available research and whole school reform models to identify the resources needed to ensure all students can meet all state standards and performance expectations.
- The **Professional Judgment (PJ)** approach relies on the experience and expertise of Nevada educators to identify the resources needed to meet the same benchmark above.

Base Cost Recommendations

	Basic Support Guarantee (16-17)	2006 Study Successful Schools	2006 Study PJ	2015 PJ/ 2018 PJ	2018 EB
Prior Study Figure	-	$4,660	$7,229	$8,577	-
Data Year	FY17	FY04	FY04	FY13	FY17
Inflation Factor	-	1.29	1.29	1.08	-
2016-17 Figure (Inflated)	$5,387	$5,988	$9,289	$9,238	$9,983

Base Cost Recommendations

- The study team recommends two alternatives for a base cost figure:
  - The 2006 successful schools base figure of $5,988 as a starting point
    - Expenditure data analysis should be updated based upon schools selected using 2016-17 data.
  - A full adequacy base figure of $9,238
    - Figure is the low end of the range of results from the 2006 and 2015/2018 PJ and 2018 EB approaches.
    - Could be funding target over time.
- Both alternatives are cost-based, but represent different performance benchmarks (current vs. future targets) and overall learning environments.

Student Need Adjustment Recommendations

- Weights for Nevada are presented in two ways:
  - Against the full adequacy base of each study, or
  - Against the starting base amount recommended ($5,988 derived from the 2006 successful schools approach).
- For results from other states, the weight shown is against that state's base amount (current or adequacy recommendation).
- All adequacy weights represent the total resource need from all available funding sources- state, local and federal.
  - To determine the weight to be included in a new funding system in Nevada, the weight would need to be adjusted to represent the resource level needed from state and local sources, knowing that federal funding would be available separately.

Student Need Adjustment Recommendations: At-Risk

Nevada Studies				
	2006 Study PJ	2015 PJ	2018 PJ	2018 EB
Applied to Each Study's Adequacy Base	.35	.35	.20-.29	.31-.46
Scaled to Apply to Base of $5,988	.54	.54	.31-.45	.52-.77
Comparison to Other States/Studies				
AIR Study/Updated Analysis, Weight in Each State Against their Base: .22 (average)				
National Adequacy Comparison, Weight Against Adequate Base: .35 (average)				

- The study team recommends a weight of .30 (does not include Title I funds).
- The weight generates $2,771 per at-risk student when applied to the full adequacy base of $9,238. This would provide for interventionists, additional social emotional support staff, supplies and materials, and extended learning time.
- The weight of .30 would generate $1,796 when applied to the lower base of $5,988 or a scaled weight of .46 would be needed to still generate $2,771.

Student Need Adjustment Recommendations: English Learners

Nevada Studies				
	2006 Study PJ	**2015 PJ**	**2018 PJ**	**2018 EB**
Applied to Each Study's Adequacy Base	0.47	0.41	.57 (average)	.40-.55
Scaled to Apply to Base of $5,988	0.73	0.63	.88	.67-.92
Comparison to Other States/Studies				
AIR Study/Updated Analysis, Weight in Each State Against their Base: .44 (average)				
National Adequacy Comparison, Weight Against Adequate Base: .49 (average)				

- The study team recommends a weight of .50 for the state funding formula.
- Applied against the full adequacy base, the weight would generate $4,619, allowing for differentiated language support based upon need (ranging from separate instruction for newcomers to co-teaching and support in the general education classroom), supplies and materials, and extended learning time.
- Against the lower base it would generate $2,994, or a scaled weight would be .77.
- Other considerations: using a three-tier weight based on WIDA results, overlap of resources from at-risk adjustment.

Student Need Adjustment Recommendations: Special Education

Nevada Studies				
	2006 Study PJ	**2015 PJ**	**2018 PJ**	**2018 EB**
Applied to Each Study's Adequacy Base	1.2	1.1	1.4	.70 (mild and mod)
Scaled to Apply to Base of $5,988	1.9	1.7	2.16	1.17 (mild and mod)
Comparison to Other States/Studies				
AIR Study/ Updated Analysis, Weight in Each State Against their Base: .9 (average)				
National Adequacy Comparison, Weight Against Adequate Base: 1.1 (average)				

- The study team would recommend a 1.1 full adequacy weight (IDEA funds being separate) applied to all special education students, which would generate $10,162 per special education student applied to the adequacy base and $6,587 per student applied to the lower base. The scaled weight would need to be 1.9.
  - Prior to implementing a relative weight for special education, a comparison against current expenditures were need to be made to ensure that funding does not drop below current and violate federal maintenance of effort and fiscal support requirements.
- The state could also consider a three-tier funding model for special education with differentiated weights by student need (using the 2018 PJ results) or providing a weight for mild and moderate and continuing to fund severe separately as a categorical (2018 EB recommendation).

Student Need Adjustment Recommendations: Gifted and Talented

Nevada Studies				
	2006 Study PJ	**2015 PJ**	**2018 PJ**	**2018 EB**
Applied to Each Study's Adequacy Base	–	–	–	Less than 0.01
Scaled to Apply to Base of $5,988	–	--	–	0.01
Comparison to Other States/Studies				
AIR Study/Updated Analysis, Weight in Each State Against their Base: weights range from .02 to .60 (if the student has an IEP).				
National Adequacy Comparison: not available				

- The PJ panels did not recommend additional resources for gifted on a full adequacy base.
- However, if a lower base was used the study team would recommend using a weight of .05 for gifted and talented (about $300 per student) based upon information from comparison states.

Alternatives for Implementation

- The full adequacy scenario implements all identified resource levels as adequate, including the base and adjustments for student need

Full Adequacy Scenario	
Base	$9,238
Student Need Weights	
At-Risk	.30 ($2,771)
English Learners	.50 ($4,619)
Special Education	1.1 ($10,162)

Alternatives for Implementation

- The scaled weights scenario would use the $5,988 base and a set of scaled weights to generate the same dollar figure per need student, as was generated in the full adequacy scenario.
  - Also includes a weight for gifted and talented.
- This approach would target additional resources towards at-risk, EL, special education, and gifted and talented students first.

Scaled Adjustments Scenario	
Base	$5,988
Student Need Weights	
At-Risk	.46 ($2,771)
English Learners	.77 ($4,619)
Special Education	1.70 ($10,162)
Gifted and Talented	.05 ($299)

Alternatives for Implementation

- The relative weights scenario would also use the $5,988 base and then apply the full adequacy weights to that amount.
  - Would result in a lower level of resource generated, but at the same relative level in terms of the base.
- Though this change is below adequacy level for the special needs students, it would: 1)still shift towards a more student-centered funding approach, 2) provide targeted dollars to all eligible students, and 3) allow resources for the base and special needs funding to grow similarly over time.

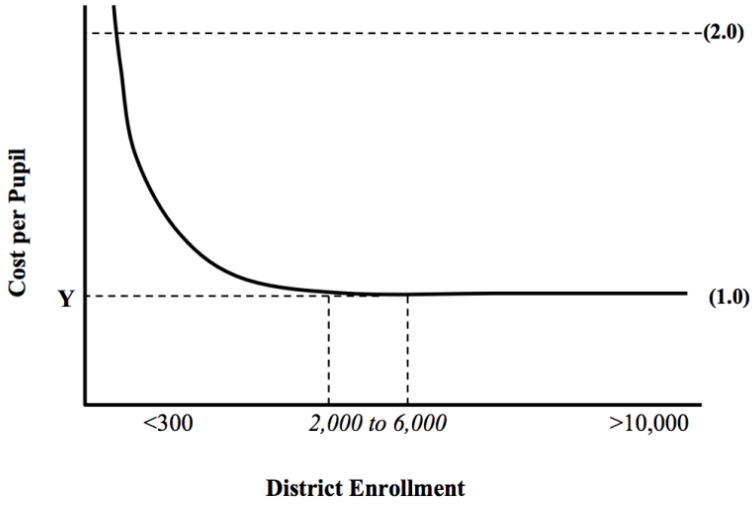
Relative Weights Scenario	
Base	$5,988
Student Need Weights	
At-Risk	0.35 ($2,096)
English Learners	0.50 ($2,994)
Special Education	1.1 ($6,587)
Gifted and Talented	0.05 ($299)

District Characteristic Adjustments

- In any base and weight scenario, the study team also recommends providing three additional adjustments to address school/district characteristics:
  - district size,
  - cost of living through a comparable wage index (CWI), and
  - necessarily small schools.

District Size

- The study team recommends that a new funding formula include a district size adjustment to account for different economies of scale in districts.
- The study team developed a size adjustment factor based upon:
  - Results of the current study and 2006 adequacy study, combined with school finance research presented in the 2012 AIR report.
- School finance research depicts the relationship between size and cost as a J-curve:



District Size

- The J-curve relationship is consistent with the results of the 2018 EB and PJ studies, that while based on two different district sizes (3,900 for EB, and 50,000 for PJ), but were similar in terms of per-pupil costs.
- The 2006 study provided smaller size data points- a minimum at 50 students and a smaller data point at 780 students- that also were consistent with the J-curve seen in research.
- These data points were used to develop the following formula (with the $9,238 base used as the floor of 1.0):

For districts above 3,900 students:

*size adjustment factor = (-.000001735*enrollment) + 1.0868*

For districts below 3900 students:

*size adjustment factor = (-0.281*ln(enrollment)) + 3.4*

District Size

- This formula was used to develop a size factor to apply to any base amount, shown below at different size points:

District Enrollment	Size Adjustment Factor
50	2.30
100	2.11
250	1.85
500	1.65
780	1.53
3,900	1.08
7,500	1.00
10,000	1.00
50,000	1.00
300,000	1.00

- The study team recommends the size factor for each district be applied to the base separately from any other adjustments.

Comparative Wage Index (CWI)

- The study team, supported by current school finance research, believes that the CWI is the best metric to use in looking at the differential in costs facing school districts related to personnel, as long as other district characteristics, such as size, are being taken into account elsewhere.
  - Uses Census Bureau data so easy to update
  - Calculated by measuring the variation in non-teacher wages across localities.
    - By examining the regional wage differentials of a large sample of workers who have characteristics similar to teachers, the CWI implicitly accounts for a wide range of factors that influence the salary levels necessary to attract teachers to live and work in particular districts or regions, such as cost of living and desirability of place, including climate, cultural amenities, safety, commute times, and recreational opportunities.

Comparative Wage Index (CWI)

- The most recent national data on CWI comes from Lori Taylor of Texas A&M University and has been updated through 2013. Every district in the country and each state has an identified CWI figure.
- A CWI can be calculated different ways: using raw figures, indexed to the lowest cost counties, or indexed to the statewide average.
- The study team would recommend using a three-year average to account for fluctuations in data.

Necessarily Small Schools Adjustment

- Finally, the study team recommends that the state adopt one of several approaches for compensating for small and/or isolated schools
- Each of these approaches is currently used in one or more states and could be adapted for use in Nevada:
  - Student weights- Arizona
  - Student count- Minnesota
  - Minimum staffing/funding- Wyoming, California

Next Steps

- Prior to the release of the final report and final recommendations on October 15th, the study team will:
  - Develop an interactive Excel model that will determine the fiscal implications of implementing the alternative student need and district/school characteristic adjustments.
  - Gather additional stakeholder feedback through a second online survey and educator listening sessions around the state.

Next Steps

- APA Public Engagement and Modeling
- Department updates:
  - Successful Schools Cost-Based (2006 APA Methodology)
  - Apply Successful Schools Cost-Based approach to inform weights
- Transition planning/modeling
- Policy (see BDR request)

Q/A