What Works in Washington State

Focus on Rural School Graduation Rates

This is the first of four briefs translating research into practice for interested stakeholders. The goal of the briefs is to provide information for making informed decisions with regard to What Works in Washington State Rural Schools.

Washington State rural schools last year reported the highest average and median percent of on-time graduates. The leading schools in the State, with the highest graduation rates were those from census defined rural and remote schools "*more than 25 miles from an urbanized area and is also more than 10 miles from an urban cluster*".[1] These 77 schools reported on-time graduation rates of 77.4% with a median rate of 84.1%. The 69 rural and distant schools were next, averaging 66.8% with a median rate of 78.6% for graduating student's on-time. Overall, rural schools reported an average on-time graduation rate of 70.3% in comparison to all of the schools in the state at 59.8% (See next page).

Research regarding the consequences for students not graduating from high school have found that over their lifetime these student will earn $260,000 less than an individual with a high school diploma.[2] Based on the Office of Superintendent of Public Instruction (OSPI) reports of Washington State schools during 2007-2008 there were 22,938 students who dropped out of school in grades 7-12.[3]

Based on just <u>one</u> year of students not graduating,

Washington State's loss of income from these students over a lifetime equates to

<u>$5,963,880,000</u>

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[1] Office of Management and Budget (2000). Standards for Defining Metropolitan and Micropolitan Statistical Areas; Notice. Federal Register (65) No. 249.

[2] Levin, H., Belfield, C., Muennig, P., & Rouse, C. The Costs and Benefits of an Excellent Education for All of America's Children (New York, N.Y.: Columbia University, Teachers College, January 2007). http://www.tc.columbia.edu/centers/EquitySymposium/symposium/resourceDetails.asp?PresId=3

[3] OSPI (2009). Graduation rates by schools 2009 data files. Retrieved October 20, 2009 at http://reportcard.ospi.k12.wa.us/DataDownload.aspx

Table 1:

Washington State School On-Time Graduation Ranking Including National Center for Educational Statistics (NCES)[4] Locale and Description, Number, Mean, Median, Standard Deviation, and Highest On-Time Graduation Rates For The 2008-2009 School Year Reported by OSPI graduation reports[5].

Rank	Locale and Description	# of Schools	Mean	Median	Std. Deviation	Highest(N)
			Percent On-Time Graduation Rates			
1	**Rural: Remote**	77	77.4	84.1	25.5	100(16)
Census-defined rural territory that is more than 25 miles from an urbanized area and is also more than 10 miles from an urban cluster						
2	**Rural: Distant**	69	66.8	78.6	31.3	100(6)
Census-defined rural territory that is more than 5 miles but less than or equal to 25 miles from an urbanized area, as well as rural territory that is more than 2.5 miles but less than or equal to 10 miles from an urban cluster						
3	**Town: Distant**	27	64.2	72.0	26.3	100(1)
Territory inside an urban cluster that is more than 10 miles and less than or equal to 35 miles from an urbanized area						
4	**Rural: Fringe**	46	63.6	79.3	33.6	100(1)
Census-defined rural territory that is less than or equal to 5 miles from an urbanized area, as well as rural territory that is less than or equal to 2.5 miles from an urban cluster						
5	**Suburb: Large**	130	59.7	73.8	33.6	100(4)
Territory outside a principal city and inside an urbanized area with population of 250,000 or more						
6	**Suburb: Midsize**	38	55.4	66.1	35.6	100(2)
Territory outside a principal city and inside an urbanized area with population less than 250,000 and greater than or equal to 100,000						
7	**Town: Remote**	28	57.9	72.1	32.9	93(1)
Territory inside an urban cluster that is more than 35 miles from an urbanized area						
8	**Town: Fringe**	34	54.5	73.7	36.5	100(1)
Territory inside an urban cluster that is less than or equal to 10 miles from an urbanized area						
9	**City: Small**	49	50.7	64.2	34.1	100(1)
Territory inside an urbanized area and inside a principal city with population less than 100,000						
10	**City: Large**	23	49.2	57.6	31.4	97(1)
Territory inside an urbanized area and inside a principal city with population of 250,000 or more						
11	**Suburb: Small**	10	51.0	62.4	34.1	87(1)
Territory outside a principal city and inside an urbanized area with population less than 100,000						
12	**City: Midsize**	51	42.1	33.3	35.6	100(1)
Territory inside an urbanized area and inside a principal city with population less than 250,000 and greater than or equal to 100,000						

Washington rural schools appear to have something to teach the state about how to engage students and keep them involved in their high school experiences through graduation.

School Locale	School Rates (Mean)		
	On-Time Graduation	Extended Graduation	Annual Dropout
Rural	70.3%	80.1%	7.9%
Town	58.5%	70.5%	13.7%
Suburb	58.3%	75.6%	8.1%
City	46.8%	73.0%	13.2%
Statewide	59.8%	75.9%	9.9%

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4 Office of Management and Budget (2000). Standards for Defining Metropolitan and Micropolitan Statistical Areas; Notice. Federal Register (65) No. 249.
5 OSPI (2009). Graduation rates by schools 2009 data files. Retrieved November 6, 2009 athttp://reportcard.ospi.k12.wa.us/DataDownload.aspx

onfidence levels provide another way to explore further the on-time graduation rates of Washington State schools. Confidence intervals provide what could be thought of as a confidence band or interval (95%) by which we would expect the percent of students graduating on-time from schools based on locale description for 2008-2009. By adding this layer of data analysis to the schools by locale it becomes evident that even though rural and remote schools still have a greater chance of on-time graduation, some of these rural and remote schools perform similarly to that of rural distant, rural fringe, and town distant schools.
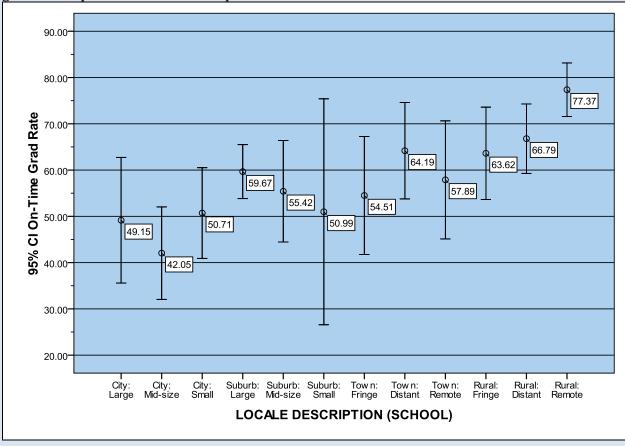
Rural schools in Washington are providing economically viable opportunities for their residents and it is time to think more about how to bring resources into rural communities to keep

What Works in Washington!

GRAPH 1:
On time High School graduation rates at the 95% confidence interval for Washington State schools by locale description during the 2008-2009 school year as reported by OSPI graduation public use school dropout data files.

The findings presented should not be considered as conveying that rural schools are better at graduating students' on-time and there is no reason to believe that rural schools are the definitive answer to the multitude of challenges facing public education. However, that same line of inquiry regarding rural schools shouldn't omit them from the discussion as a viable model and strategy to address the needs of students, teachers, parents, and administrators to enhance academic achievement and educational support.

Washington School Information Research Services (SIRS) Leadership Information Journal last year discussed at length some researcher's pioneering work regarding Multi-Dimensional Benchmarking[6]. Multivariate analysis and techniques like that of Multi-Dimensional Benchmarking hold some potential to enhance significantly our understanding of schools compared to conventional school benchmarking methods. This technique uses historical data to test for and quantify the relationships that exist between the physical aspects of a school and the performance of that school. Using a combination of iterative variance analysis and complex non-linear multiple regressions they have started to isolate the quantified mathematical relationships that exist between these drivers and school pass rates. By using these common mathematical relationships for every school will put dissimilar schools on the same (and therefore a fair) basis. This is important because it is clearly unfair to compare school pass rates between rich suburban schools and high poverty inner city or rural schools on an equal basis. In reality, some schools with average pass rates of less than 40% are actually doing a more effective job of educating (providing education growth for) their students than rich schools with 90% of their students passing.

Findings regarding Graduation Rates and Washington Rural Schools were-
1. Education is the ticket out of poverty for students in rural communities;
2. Education is the ticket out of poverty for many living in rural communities;
3. Rural schools have higher rates of on time graduation (Fewer drop outs);
4. Graduation rates alone don't tell the whole story (Need more complex analysis);
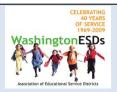5. Education in some communities is the largest economic driver;

"Rural Schools are critical and vital components of Washington's economy."

Next Steps to consider if there is a desire to understand – **What Works in Washington**:

- ✓ Create and support an active community of Washington State rural and small school researchers so they can inform policy, programs, and practices at a minimum.
- ✓ Support the exploration of Multi-Dimensional Benchmarking to quantify the relationships that exist between the physical aspects of and their performance.
- ✓ Accelerate the gathering of field experiences and practices from schools regarding the formal and informal learning environments to inform policy and practices.
- ✓ Teacher retention, recruitment, and development, especially in rural and small schools needs to be given greater attention as a workforce, economic, and community development endeavor.

The Rural Education Center is a statewide cooperative of over 55 small and rural school districts committed to achieving the highest quality of learning on behalf of children in our schools. The Rural Ed. Center is connected with the College of Education at Washington State University and our partners include OSPI, Educational Service Districts, and several other state organizations, including WASA and WSSDA. For more information contact: Jim Kowalkowski at 509-725-1481 or jimkowalkowski@davenport.wednet.edu.

[6] Maidment, J., & Lewis, J. (2008). Scientific research into fairly measuring K-12 school effectiveness: What Student and School Characteristics Impact K-12 Student Performance on the WASL. School Information Research Services *Leadership information, 7*(3), 9-16.