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**K-3 CLASS SIZES IN PORTLAND, OREGON**

**Prepared for Congressman David Wu**

**Minority Staff Report  
Special Investigations Division  
Committee on Government Reform  
U.S. House of Representatives**

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## Table of Contents

Executive Summary .....	i
I. The Importance of Small Class Size .....	1
A. The Findings of the U.S. Department of Education .....	1
B. The Tennessee “STAR” Study .....	2
C. Other Class Size Research .....	3
D. Federal Class Size Objectives .....	4
II. Study Objectives and Methodology .....	5
III. Findings .....	6
A. Overcrowding in Schools in the Portland Area .....	6
B. County-by-County Comparison .....	6
C. Comparison to the 1998-1999 School Year .....	7

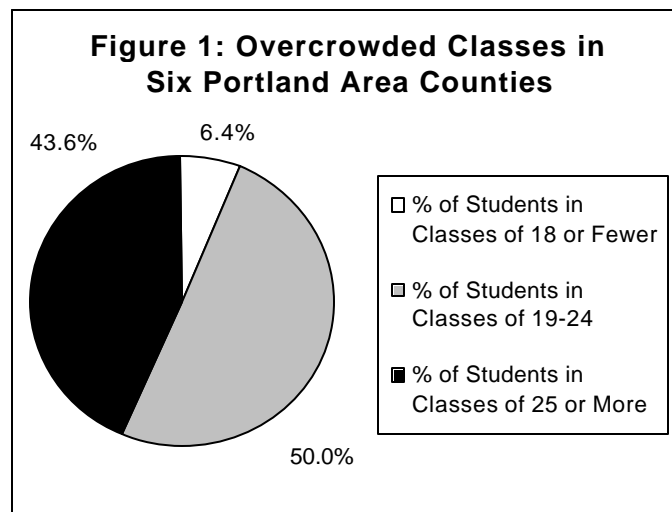
## **EXECUTIVE SUMMARY**

This report on class sizes was prepared at the request of Congressman David Wu of Oregon. It analyzes the number of children in kindergarten through third-grade classrooms in six Oregon counties in the Portland area. It finds that during the 1999-2000 school year, over 93% of young children in these six counties were taught in classrooms that exceeded the national goal of 18 students per classroom. The six counties are Clackamas, Clatsop, Columbia, Multnomah, Washington, and Yamhill counties.

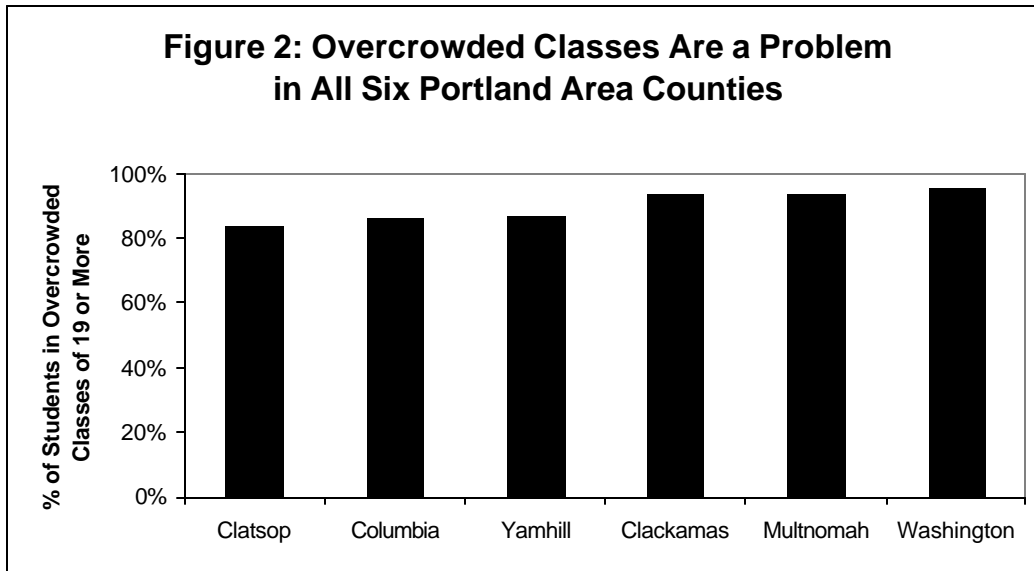
A growing body of research indicates that class size in the younger grades has a direct and substantial impact on learning. Studies in several states, including Tennessee, Wisconsin, North Carolina, and California, indicate that reducing class size to 18 students or less in grades K-3 can significantly improve student achievement. According to the federal Department of Education, "class size reduction in the early grades is one of the most direct and effective ways to boost children's academic achievement." For this reason, the Department has established a national objective to "reduce class size in the early grades to a nationwide average of 18."

While the importance of class size to student achievement is widely accepted, few reports have investigated the actual class sizes in public schools in the United States. For this reason, Rep. Wu asked the minority staff of the Committee on Government Reform to investigate class sizes in his congressional district, the 1<sup>st</sup> Congressional District of Oregon. The findings in this report are based on class size data gathered by the Oregon Department of Education during the 1999-2000 school year. This data consists of classroom-by-classroom statistics reported by the public elementary schools in the six Oregon counties. Over 94,000 K-3 students in over 4,200 classrooms are covered by this report.

The report finds that during the 1999-2000 school year, there was a serious problem of overcrowding in classrooms in the six counties as a whole. Fewer than 7% of children in grades K-3 were taught in classrooms that met the national goal of 18 students per class. In contrast, more than 93% of students were taught in classes that exceeded the optimal class size of 18. In addition, more than two out of every five students (43.6%) were taught in especially large classes of 25 or more students. These findings are summarized in Figure 1.



The report also analyzes class size statistics for each individual county. It finds that during the 1999-2000 school year, overcrowded classrooms were a problem in each of the counties. In every county, over 80% of K-3 students were taught in overcrowded classes of 19 or more. In the two largest counties, Multnomah and Washington, over 90% of students were taught in overcrowded classes. These findings are summarized in Figure 2.



This report is the second report on class sizes in the Portland area requested by Rep. Wu. The first report was released on August 25, 1999, and analyzed K-3 class sizes based on data from the 1998-1999 school year.<sup>1</sup> A comparison of the two reports shows that while class sizes changed slightly within individual counties during the 1999-2000 school year, virtually no progress was made during the 1999-2000 school year in reducing class sizes in the six county area as a whole.

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<sup>1</sup>Minority Staff, House Committee on Government Reform, *Class Sizes in Grades K-3 in Portland, Oregon* (August 25, 1999).

## I. THE IMPORTANCE OF SMALL CLASS SIZE

There is substantial evidence that reducing class size to 18 or below in grades K-3 can have a substantial positive impact on student achievement. This research -- and the national program to reduce class size to 18 or less in these grades -- is summarized below.

### A. The Findings of the U.S. Department of Education

The U.S. Department of Education has extensively studied the impact of class size on student achievement. In a series of reports, the Department reviewed the large body of research on class size and concluded that smaller class sizes lead to improved student achievement. According to the Department, "research has shown that class size reduction in the early grades is one of the most direct and effective ways to boost children's academic achievement."<sup>2</sup>

Researchers with the Department have concluded that "a consensus of research indicates that class size reduction in the early grades leads to higher student achievement."<sup>3</sup> The researchers reached this conclusion after reviewing over 20 years of studies employing varying methodologies. They found that "the significant effects of class size reduction on student achievement appear when class size is reduced to a point somewhere between 15 and 20 students."<sup>4</sup> They also noted that the research indicated that there were greater small-class advantages for minority and low-income students.<sup>5</sup>

In another report, Department researchers reviewed several recent studies on class size and found that they "provide compelling evidence that small classes in the primary grades are academically superior to regular-size classes."<sup>6</sup> The report concluded that "this research leaves no doubt that small classes have an advantage over larger classes in student performance in the early primary grades."<sup>7</sup>

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<sup>2</sup>U.S. Department of Education, *A National Effort to Ensure Smaller Classes with Well-Prepared Teachers* (1999).

<sup>3</sup>Pritchard, Ivor, National Institute on Student Achievement, Curriculum and Assessment, Office of Educational Research and Improvement, U.S. Department of Education, *Reducing Class Size: What Do We Know?* (1999).

<sup>4</sup>*Id.*

<sup>5</sup>*Id.*

<sup>6</sup>Finn, Jeremy, National Institute on the Education of At-Risk Students, Office of Education Research and Improvement, U.S. Department of Education, *Class Size and Students at Risk* (1998).

<sup>7</sup>*Id.*

## **B. The Tennessee “STAR” Study**

The most comprehensive and scientific study to date on the impact of class size on student achievements is Tennessee's Student-Teacher Achievement Ratio (STAR) study. Initiated in 1985, STAR was a multi-year class size study conducted by the state of Tennessee. The study encompassed more than 7,000 students in 79 elementary schools. Within each school, kindergarten students were randomly assigned to one of three types of classes: small (13-17 students), regular (22-26 students), or regular with full-time aide (22-26 students taught by one teacher and one full-time teaching aide). The students were kept in classes with these assigned sizes for four years (from grades K-3) and were given standardized tests yearly. Teachers were randomly assigned to classes on a yearly basis. In effect, the STAR study was designed as a controlled scientific experiment on the question of whether class size is a significant factor in a student's academic achievement.

The STAR study found that the benefits of small classes in grades K-3 are both significant and long-lasting. First, it found that when compared to their counterparts in larger classes, students in classes with less than 18 students reached more advanced levels of achievement in math, reading, and word study skills.<sup>8</sup> This was true even when students in small classes were compared to students in larger classes with a teaching aide. Researchers reported statistically significant improvements in student achievement at each grade level. When translated into months of schooling completed, these results showed that at each grade level, students in small classes were ahead of their peers in their school work by several months.<sup>9</sup>

The study found that the benefits of smaller classes are sustained through later grades. Students who spent four years in small classes continued to demonstrate greater achievement levels as they progressed through school, even after they were returned to regular-size classrooms.<sup>10</sup> By the eighth grade, they were ahead of their peers in core subjects by more than a year of schooling, as depicted in Table 1.

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<sup>8</sup>Finn, Jeremy, et al., *Short- and Long-term Effects of Small Classes* (1999).

<sup>9</sup>*Id.*

<sup>10</sup>*Id.*

**Table 1: Small Classes in the Early Grades Result in Long-Term Academic Benefits.**

<b>Subject</b>	<b>Advantage by Grade 8 of Small Class Size (Measured in Years of Additional Schooling)</b>
Mathematics	1 year, 1 month
Reading	1 year, 2 months
Science	1 year, 1 month

STAR researchers also found that the benefits of small classes were substantially greater for minority and low-income students.<sup>11</sup> In the core subjects of math, reading, and word study skills, minority students derived twice as much benefit from smaller classes than white students.<sup>12</sup>

The STAR study also found a variety of other important benefits to small K-3 classes, including higher high school graduation rates<sup>13</sup> and a greater propensity to take college entrance exams<sup>14</sup> among students who had been taught in small classes.

**C. Other Class Size Research**

Other recent studies have reached similar results. For example, a class size reduction program implemented in North Carolina found that first and second grade students who attended small classes outperformed other students on standardized reading and math achievement tests. The study also found that the percentage of classroom time devoted to noninstructional activities such as discipline decreased by 30% compared with larger classes.<sup>15</sup>

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<sup>11</sup>Finn, Jeremy, *Tennessee's Class Size Study: Findings, Implications, Misconceptions* (1999).

<sup>12</sup>Finn, J. and Achilles, C., *Answers about questions about class size: A statewide experiment* (1990).

<sup>13</sup>Pate-Bain, H., et al., *Effects of Class Size Reduction in the Early Grades (K-3) on High School Performance* (1999).

<sup>14</sup>Krueger, A. and Whitmore, D., *The Effect of Attending a Small Class in the Early Grades on College Attendance Plans* (1998).

<sup>15</sup>Egelson, P., et al., *Does Class Size Make a Difference? Recent Findings from State and Districts Initiatives* (1996).

Similar results have been reported from Wisconsin, which in 1996 began a class size reduction program called the Student Achievement Guarantee in Education (SAGE) program. The program has phased in small classes throughout the last three years in 45 schools. Researchers studying this program found that first and second grade students in SAGE achieved consistently higher scores in every subject area on standardized tests.<sup>16</sup>

Most recently, results from a California initiative to reduce class size also confirm the importance of smaller classes. In 1996, the state of California implemented a statewide effort to reduce the class sizes of all classes in grades 1-3 to below 20 students. Due to the speed with which the program was implemented, students were often taught in temporary facilities by hastily recruited teachers without teaching credentials.<sup>17</sup> Despite the difficulties associated with the program, a preliminary study found that after one year in the program, third graders experienced a "small positive achievement gain" on standardized tests.<sup>18</sup> Also, the study found that teachers spent more time working with individual students and less time on discipline in the smaller classes.<sup>19</sup>

#### **D. Federal Class Size Objectives**

The developing scientific consensus on the importance of small class sizes has resulted in a federal effort to reduce K-3 class sizes to 18 across the nation. In his 1998 State of the Union address, President Clinton called for a national effort to reduce class sizes:

Tonight, I propose the first ever national effort to reduce class size in the early grades. . . . My balanced budget will help to hire 100,000 new teachers who have passed a state competency test. Now, with these teachers . . . we will actually be able to reduce class size in the 1st, 2nd,

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<sup>16</sup>Molnar, A., et al., *1997-98 Results of the Student Achievement Guarantee in Education (SAGE) Program* (1998).

<sup>17</sup>CRS Research Consortium, *Class Size Reduction in California 1996-98: Early Findings Signal Promise and Concerns* (1999). The California program provided substantial financial incentives for schools to place students in classes of 20 or less, giving schools a bonus of \$650-\$800 per student placed in a class of 20 or less. Responding to these incentives, "school districts managed to put hundreds of thousands of students in small classes by the time school started, just six weeks after the legislation passed." *Id.*

<sup>18</sup>*Id.* Third graders were the only group examined because they were the only grade with enough students not participating in the program to serve as a basis for comparison.

<sup>19</sup>*Id.*



and 3rd grades to an average of 18 students a class, all across America.<sup>20</sup>

In October 1998, the Congress approved the President's plan to reduce K-3 class size to 18, appropriating \$1.2 billion to hire the first 30,000 new teachers. According to the Department of Education, this was "the first installment of an initiative that is anticipated to provide \$12.4 billion over 7 years to help schools hire 100,000 new teachers and reduce class size in the early grades to a nationwide average of 18."<sup>21</sup> In 1999, Congress appropriated an additional \$1.3 billion for fiscal year 2000 to continue the process of reducing K-3 class sizes.

Federal funding for class size reduction in fiscal year 2001 is currently being debated in Congress. Republicans in Congress have proposed an education budget that contains no dedicated funding for the President's class size reduction program. President Clinton has pledged to veto such a budget. Final budget negotiations are expected in September, when Congress returns from recess.

## **II. STUDY OBJECTIVES AND METHODOLOGY**

Congressman David Wu represents the 1<sup>st</sup> Congressional District of Oregon, which contains all or part of six counties: Clackamas, Clatsop, Columbia, Multnomah, Washington, and Yamhill. Because of the importance of small class size to educational performance, Rep. Wu requested that the minority staff of the Committee on Government Reform investigate class sizes in grades K-3 within his district. Specifically, he requested that the study compare class sizes in grades K-3 with national goal of 18 students per classroom. This report presents the results of this investigation.

The report is based on data obtained from the Oregon Department of Education. The data was electronically submitted to the Department on a classroom-by-classroom basis during the 1999-2000 school year by each school district. Ninety-five percent of elementary schools in the state submitted data.

In total, the six counties contained 94,585 K-3 students during the 1999-2000 school year.<sup>22</sup> To eliminate potential reporting errors, the report did not include any classes which reported class sizes larger than 50 or smaller than 10.<sup>23</sup>

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<sup>20</sup>1998 State of the Union address available at: [www.whitehouse.gov/WH/EOP/OP/html/OP\\_Speeches.html](http://www.whitehouse.gov/WH/EOP/OP/html/OP_Speeches.html).

<sup>21</sup>Department of Education website: <http://www.ed.gov/offices/OESE/ClassSize/>.

<sup>22</sup>The investigation focused on class sizes in core classes. It excluded data on specialized classes, such as special education, physical education, art, and music.

<sup>23</sup>Sixty classrooms were eliminated under this procedure, only 1.4% of the total number of classrooms reported.

### **III. FINDINGS**

#### **A. Overcrowding in Schools in the Six Portland Area Counties**

The data reveal that overcrowding in K-3 classrooms is a serious problem in the six Portland area counties. For the 1999-2000 school year, the overwhelming majority of young children in the counties' public schools were taught in classrooms that exceeded the optimal class size of 18 or fewer students. Out of the 94,585 K-3 students in the six counties, only 6,081 children (6.4%) were taught in classes of 18 or fewer students. In contrast, 88,504 children (93.6%) were taught in classes that exceeded the optimal class size.

In addition, more than two out of every five students were taught in especially large classes of 25 or more students. Over 41,000 K-3 students (43.6%) were taught in classes of 25 or more. Table 2 summarizes these results.

**Table 2: Distribution of K-3 Students by Class Size**

<b>Class Size</b>	<b># of Students</b>	<b>% of Students</b>
18 or Fewer	6,081	6.4%
19-24	47,283	50.0%
25 or More	41,221	43.6%

The average class size for the six counties in the 1999-2000 school year was 23.2

#### **B. County-by-County Comparison**

The report also investigates class sizes in each of the six counties. It finds that overcrowded classrooms were a problem in every county during the 1999-2000 school year. In every county, over 80% of K-3 students were taught in overcrowded classrooms of 19 or more. In the two largest counties, Multnomah and Washington, over 90% of K-3 students were taught in overcrowded classrooms.

In addition, in five counties, 25% or more of K-3 students were taught in excessively crowded classes of 25 or more. In two counties, Multnomah and Clackamas, nearly 50% of K-3 students were taught in classes of 25 or more. Table 3 provides class size statistics on a county-by-county basis.

**Table 3: County-by-County Class Size Statistics**

County	% of K-3 Students in Classes of 18 or Fewer	% of K-3 Students in Classes of 19-24	% of K-3 Students in Classes of 25 or More	Average Class Size
Clackamas	6.7%	46.1%	47.2%	23.7
Clatsop	16.2%	69.6%	14.2%	20.8
Columbia	13.4%	58.3%	28.3%	22.2
Multnomah	6.3%	45.5%	48.2%	23.5
Washington	4.3%	59.6%	36.1%	23.2
Yamhill	13.1%	55.9%	31.0%	22.1

**C. Comparison to the 1998-1999 School Year**

In August 1999, Rep. Wu released a report on K-3 class sizes in the six Portland area counties.<sup>24</sup> Rep. Wu's first report was based on data collected during the 1998-1999 school year. A comparison of the 1999-2000 data to the data from the previous report reveals that class sizes for the six county area as a whole remained virtually unchanged. In both years, over 90% of students were taught in overcrowded classes of 19 or more. During the 1999-2000 school year, there was a slight shift of students from classes of 25 or more to classes of 19-24, but in both years more than 40% of students were taught in excessively crowded classes of 25 or more. Table 4 provides comparative class sizes statistics for the two years.

**Table 4: Class Sizes Remained Virtually Unchanged in the 1999-2000 School Year**

School Year	% of Students in Classes of 18 or Fewer	% of Students in Classes of 19-24	% of Students in Classes of 25 or More	Average Class Size
1998-1999	7%	47%	46%	23.1
1999-2000	6.4%	50%	43.6%	23.2

Within the individual counties, there were minor fluctuations in class sizes. Multnomah and Washington counties experienced modest decreases in the percentages of K-3 students taught in classes of 25 or more, but in both counties over 95% of students were still taught in overcrowded classes of 19 or more. K-3 class sizes in Clackamas, Clatsop, and Yamhill County did not experience significant changes. In Columbia County, the percentage of students in classes of 25 or more doubled, but the percentage of students in classes of 18 or fewer remained unchanged.

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<sup>24</sup>Minority Staff, House Committee on Government Reform, *Class Sizes in Grades K-3 in Portland, Oregon* (August 25, 1999).