



AUGENBLICK,
PALAICH AND
ASSOCIATES

Study of Hawaii's Compensation System

By

Augenblick, Palaich and Associates

with

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Mr. Holck and Ms. Matayoshi,

This report serves as the culmination of the work Augenblick, Palaich and Associates (APA) conducted for the Hawaii Department of Education to examine Hawaii's teacher compensation system. Following a competitive Request for Proposal process, APA was awarded the project. The scope of work called for a full investigation of the state's compensation system, including an examination of the structure of the state's salary schedule, a comparison of salary levels to those of comparison districts, a comparable wage study, and a set of recommendations for possible changes to the state's teacher compensation system.

The report has six chapters. Chapter one provides a brief background on the project and an introduction to the work. Chapter two examines the flow of teachers into and out of Hawaii's teacher workforce. Chapter two begins with an examination of trend data, and then runs a regression analysis to show how different variables influence teacher retention. Chapter three is a comparable wage study. It compares teacher salaries to those of other professionals, both in Hawaii and across the country. Chapter four examines the structure of Hawaii's salary schedule and compares it to salary schedules in 12 comparison districts. Hawaii's salary levels are then compared to the comparison districts. The comparisons examine raw salaries, salaries adjusted for workload, and salaries adjusted for geographic cost differences. Chapter five examines Hawaii's benefit structure, including insurance coverage and retirement plans. Chapter five also provides some comparisons to other districts. Chapter six uses the analysis described in the earlier chapters to recommend a list of possible changes to Hawaii's compensation system.

Recommendations include lowering the number of classes in the salary schedule, raising the number of steps in the salary schedule, raising stipend levels for non-athletic and athletic coaches, and examining the use of targeted stipends.

APA appreciates the opportunity to work on this project and thanks all the staff that helped us during the study.

Sincerely,

Justin Silverstein
Vice President, APA Consulting

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I. INTRODUCTION

The July 1, 2013 – June 30, 2017 agreement between the Hawaii State Teachers Association (HSTA) and the Hawaii Department of Education (HDOR) called for a comprehensive study of the state's teacher compensation system. The state put out a request for proposals (RFP) seeking a vendor to complete the study, and selected Augenblick Palaich and Associates (APA) as the vendor.

The compensation systems that districts set up contain a number of different parts, including base pay for teachers (usually based on a salary schedule); stipends for additional services; and benefits packages including health insurance coverage and retirement. As districts craft each piece of the compensation system, they create packages unique to each district. This study examines each piece of Hawaii's teacher compensation system and provides a number of recommendations based on the analysis.

This study contains six chapters, including this brief introduction (Chapter One):

Chapter Two reviews the current distribution and flow of teachers in Hawaii. First, it examines where teachers are on the current salary schedule and how it has changed over time is looked at. Second, it looks at the trends of when teachers enter teaching in Hawaii and when they leave. Finally, Chapter Two runs a regression to determine what factors might play a role in teacher retention.

Chapter Three is a comparable wage study examining how teaching salaries compare with other occupation salaries within Hawaii. These salary differences are compared to differences in other states throughout the country.

Chapter Four compares Hawaii's salary schedule structure and salary levels to those of 12 comparison districts around the country. Salaries are compared both at a raw level and also after adjusting for workload and geographic cost differences.

Chapter Five examines the stipends, benefits, and retirement plans offered in the twelve comparison districts, compares them to Hawaii's stipends, benefits, and retirement plans. Health insurance, dental and vision insurance, sick days, and stipends for additional duties are all examined.

Chapter Six takes the study information and examines the possible influences on recruitment and retention. Chapter Six then offers a few recommendations for possible changes to the current system.

When reviewing information on comparisons to other districts, it is important to keep in mind the limitations of this research. APA does not have information on the effectiveness of the comparison districts' compensation systems in attracting and retaining staff, or in meeting other district goals.

II. CURRENT DISTRIBUTION AND FLOW

APA examined data received from the HDOE for the 2009-10, 2010-11, 2011-12, 2012-13, and 2013-14 school years. This data was used to understand the distribution of teachers within the pay system, the flow of teachers in and out of the system, and the reasons why teachers may be leaving the system.

The Data

The HDOE-provided data came from the personnel transaction database. The data had multiple records per person per year, based on the number of personnel transactions. To analyze this information, the data set was reduced to one observation per year. The final observation, which was based on the most recent observation update, was used to identify the salary codes for each teacher.

The location information for where each person worked was then used to connect teachers with information about their schools, based on information contained in the School Status and Improvement Report (SSIR). A teacher was identified as quitting if s/he appeared in the database as a teacher for any given year, but not for the next year. Similarly, a new teacher was identified as a person who appears in the database as a teacher for any given year, but who was not listed a teacher in the database during the prior year. Years of service were recorded as each person's total years of service in Hawaii.

Distribution

Understanding the current distribution of teachers within the compensation system is a first step to understanding how the system is functioning. Hawaii's teacher pay system is based on a traditional salary schedule that rewards education level and years of service. Education recognition includes six possible classes, starting with Class II (a Bachelor's degree) and ending with Class VII (a Doctorate or a Master's plus 60 credits). Teachers with a Bachelor's degree and 30 credits are placed in Class III along with those with a Master's degree. An additional 15 credits are required to move to Classes IV through VI.

Recognition of teacher experience is expressed through 15 possible steps. The steps do not correlate directly to years of experience. In fact, the first three steps in Hawaii's salary schedule are only for teachers who have not completed a state-approved teacher education program (SATEP).

Looking at the distribution of teachers over time, it is clear a large shift in steps occurred between the 2012-13 and 2013-14 school years. Table II-1 below shows the distribution of teachers in 2012-13 on the salary schedule. For all years, the distribution across classes is similar, with the majority of teachers in Classes II and III. The 2012-13 distribution across steps is similar to that of the 2010-11 and 2011-12 years. The majority of teachers fall into Steps 5 and 7. Teachers are also concentrated in Steps 6, 8, 9, and 10.

Table II-1							
Distribution of Teachers 2012-13							
Step	Class II	Class III	Class IV	Class V	Class VI	Class VII	Total
1	185	16	0	0	0	0	201
2	1	0	0	0	0	0	1
3	0	6	0	0	0	0	6
5	1,301	1,984	246	77	28	41	3,677
6	174	463	107	47	27	45	863
7	504	983	611	478	429	815	3,820
8	67	116	144	161	158	597	1,243
9	52	97	108	128	140	661	1,186
10	15	23	33	36	35	200	342
11	11	20	27	24	39	201	322
12	25	55	61	68	98	555	862
13	23	29	38	35	62	379	566
14	7	14	20	20	30	221	312
14A	7	4	9	11	11	116	158
14B	1	6	11	14	35	217	284
Total	2,373	3,816	1,415	1,099	1,092	4,048	13,843

Table II-2 shows the 2013-14 distribution of teachers. Comparing Tables II-1 and II-2 shows a shift in placement along the salary schedule grid for the 2013-14 school year, reflective of the July 1, 2013 – June 30, 2017 agreement between the HSTA and the HDOE. In 2013-14, around 46 percent of teachers are on Steps 6 and 8. Steps 5, 7, 9, and 10 also have high concentrations of teachers.

The link between steps and years of experience is relatively linear, but the actual progression through the steps is not a one year to one step relationship. Steps 5 through 14B are for teachers who have completed an approved SATEP. Step 5 is supposed to include teachers in their first and second years of teaching, often referred to as years 0 and 1¹. Step 6 of the schedule includes those teachers in their second through sixth years of teaching. Table II-3 shows the average years of experience of personnel within all cells of the salary schedule for the 2012-13 school year. (APA uses the term “cell” to refer to the specific combinations of education level and step.) Table II-4 shows the average years of experience after the step adjustment for 2013-14.

¹ <http://www.hawaiipublicschools.org/DOE%20Forms/OHR%20Employment/TeachersSalarySch2014-2015.pdf>

Table II-2							
Distribution of Teachers 2013-14							
Step	Class II	Class III	Class IV	Class V	Class VI	Class VII	Total
1	168	10	0	0	0	0	178
2	34	6	0	0	0	0	40
3	0	9	0	0	0	0	9
5	573	689	40	9	3	11	1,325
6	986	1,643	276	112	54	58	3,129
7	187	443	187	108	66	135	1,126
8	409	798	520	421	376	834	3,358
9	56	112	132	152	145	600	1,197
10	46	79	94	111	124	612	1,066
11	12	26	33	32	26	201	330
12	10	16	27	25	46	207	331
13	23	56	53	66	85	528	811
14	21	22	32	29	51	336	491
14A	9	13	18	17	24	191	272
14B	6	9	20	19	38	265	357
Total	2,540	3,931	1,432	1,101	1,038	3,978	14,020

Excluding teachers who have not completed a SATEP program from the examination, years of experience generally increase as steps get higher. This is true in both years, across all classes. Focusing just on 2013-14, average years of experience is higher for Classes IV through VII in Steps 5 through 8. Steps 9 through 14B see more consistency in average years of experience across classes.

Table II-3						
Average Years of Experience by Class and Step 2012-13						
Step	Class II	Class III	Class IV	Class V	Class VI	Class VII
1	2.6	2.1				
2	3.0					
3		5.7				
5	4.4	4.7	6.5	7.1	7.0	7.2
6	7.7	7.1	8.5	8.4	8.6	8.7
7	11.8	11.3	12.5	13.2	13.5	14.0
8	16.5	16.7	17.4	17.6	18.3	18.7
9	20.6	20.4	20.8	21.3	21.8	21.9
10	23.7	24.0	23.7	23.2	23.9	23.8
11	25.0	24.3	24.0	25.0	25.0	25.5
12	25.8	26.4	26.6	26.2	26.5	26.8
13	30.0	29.0	29.1	28.9	29.4	29.5
14	31.4	31.8	31.9	31.5	31.0	32.0
14A	34.4	29.0	33.6	33.0	35.5	34.9
14B	37.0	32.8	40.0	38.3	40.0	39.3

Table II-4						
Average Years of Experience by Class and Step 2013-14						
Step	Class II	Class III	Class IV	Class V	Class VI	Class VII
1	2.0	1.7				
2	2.7	2.4				
3		4.6				
5	2.8	3.5	6.2	7.1	5.0	6.1
6	4.6	4.8	6.4	6.6	7.0	7.2
7	8.7	8.0	9.5	11.1	11.3	12.0
8	12.1	11.4	12.7	13.2	13.8	14.2
9	16.6	17.2	17.9	17.8	18.6	19.1
10	21.0	20.3	20.5	21.6	21.8	21.9
11	23.5	23.0	23.8	23.3	24.3	24.0
12	25.6	24.4	24.5	25.0	25.4	25.5
13	25.8	26.8	26.8	26.6	26.8	27.1
14	30.1	29.0	29.6	28.6	29.7	29.8
14A	32.0	30.5	32.1	31.7	31.2	32.3
14B	35.0	33.0	36.9	35.7	38.9	37.9

Table II-5 shows the average years of experience of all teachers in a step, regardless of their educational class, for 2013-14. It appears to take around a decade to move from the first step, Step 5, to the fourth step, Step 8. There is a five-and-a-half year difference in the average experience of teachers in Step eight compared to those in Step 9. Not surprisingly, Step 8 has by far the most teachers, with over 3,300 teachers in Step 8 during the 2013-14 school year. This is the largest difference between steps, other than between 14A and 14B (which is nearly six years, but only represents about 630 teachers across Steps 14A and 14B).

Table II-5	
Average Years of Experience by Step	
Step	Average Years
5	3.2
6	5.0
7	9.0
8	12.8
9	18.3
10	21.5
11	23.8
12	25.3
13	26.9
14	29.6
14A	31.9
14B	37.8

Teachers Coming into the System

APA was able to create information on teachers entering the teacher pay system by taking the five years of HDOE-provided data and then identifying teacher IDs in each year that did not exist in the previous year. This method generated four years worth of data, including 2010-11, 2011-12, 2012-13, and 2013-14. Table II-6 shows that the vast majority of the teachers entering the system enter with education at the Class II or Class III levels.

Table II-6							
New Teachers by Class							
Year	Class II	Class III	Class IV	Class V	Class VI	Class VII	Total
2010-11	472	490	20	10	10	24	1,028
2011-12	493	579	13	10	7	16	1,120
2012-13	500	560	13	6	11	21	1,111
2013-14	597	598	19	17	8	40	1,279

Table II-7 shows teachers coming into the system are most often coming in at Steps 5, 6, or 7 in all four years from 2010-11 to 2013-14. Teachers placed at higher steps most likely had prior HDOE experience.

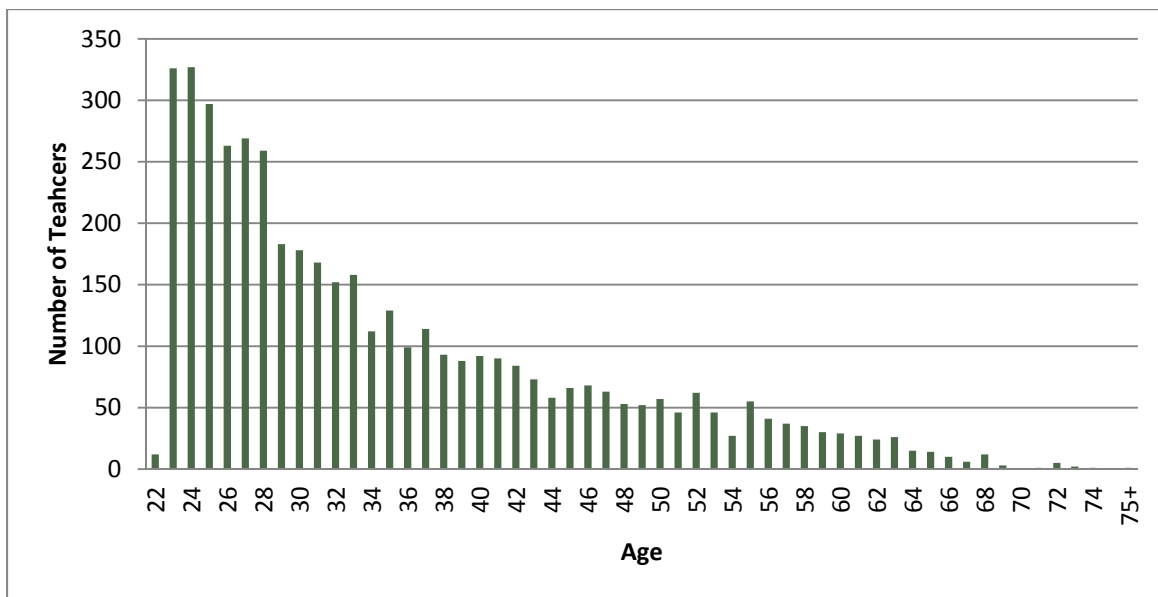
Table II-7				
New Teachers by Step				
Step	2010-11	2011-12	2012-13	2013-14
1	141	122	95	117
2	1			2
3	1		2	3
5	675	839	934	622
6	101	98	11	386
7	67	43	49	28
8	14	10	6	78
9	9	2	5	20
10	6		5	10
11	6	2	1	4
12	2	4		1
13	2		1	4
14			2	2
14A	2			
14B				2

Figure II-1 below shows the age distribution for all teachers entering the system for the four years. Since the approach to identifying staff entering the system uses teacher IDs not present in the prior year,

some other teachers—teachers who have come back to teaching either after time off or time in a non-teaching position—are also included in the figures. This may account for some or many of the higher-aged teachers in the distribution. It would also account for some of the teachers in tables II-3 and II-4 who were placed in steps above Step 5 (which is designated for new teachers).

The data on teachers entering the system shows that the majority of teachers are new to teaching or in their first few years of teaching. Ages of new teachers varies, but the majority of new teachers are in their 20s or early 30s.

Figure II-1: Age Distribution of Teachers Entering System



Teachers Leaving the System

APA’s examination of teachers leaving the system identified teachers who were in the teacher pay system one year but who did not appear in the system the following year. This provided four years of data on teachers exiting the system, from 2009-10, 2010-11, 2011-12, and 2012-13. Table II-8 below shows the number of teachers, by class, who left the teacher pay system. Total numbers of teachers exiting the system were lower in 2009-10 than the other three years. In all four years, a large percentage of the teachers leaving were in Class VII, representing more educated and generally more experienced teachers, and possibly representing retirees. In most years, Classes II and III also had large numbers of teachers leaving, representing less educated and often less senior teachers.

Table II-8							
Teachers Leaving by Class							
Step	Class II	Class III	Class IV	Class V	Class VI	Class VII	Total
2009-10	92	125	44	28	32	229	550
2010-11	343	384	86	71	66	307	1,259
2011-12	273	345	87	76	66	247	1,095
2012-13	282	370	72	63	61	254	1,103

Table II-9 looks at the step placements for teachers leaving the teacher pay system across the four years. Like the examination of classes above, the distribution within steps seems to indicate a somewhat bimodal population of teachers leaving the teacher pay system. In all years, a large number of teachers exit from Steps 12 and above. For the most recent years, large numbers of teachers are also leaving from the early career steps, Steps 1, 5, 6, and 7.

Table II-9				
Teachers Leaving by Step				
Step	2009-10	2010-11	2011-12	2012-13
1	20	92	78	80
2	3	5		
3	1	3		
5	64	291	309	385
6	42	119	118	90
7	94	273	191	201
8	33	87	66	61
9	28	70	58	42
10	5	20	12	21
11	14	25	19	11
12	34	60	56	48
13	25	42	30	51
14	22	26	37	36
14A	27	39	35	25
14B	138	106	86	52

Figure II-2: Age Distribution of Teachers Leaving

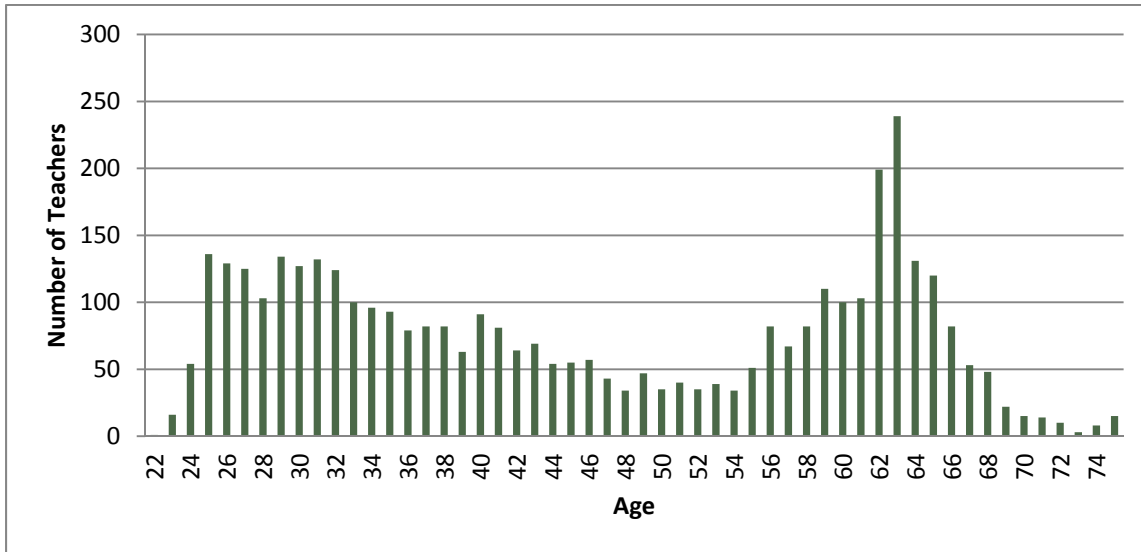


Figure II-2 above shows the distribution of teachers leaving the system by age. The U shape is common for the age distribution of exiting teachers in other districts APA has studied. Teachers leaving the system are either younger, and newer to teaching, or are much older, and at the end of their teaching careers. The main difference between this age distribution and the distribution in other district APA staff has analyzed is that the retirement peak usually comes at a younger age. That is, in many states, we see retirement-associated attrition at a younger age than seen here.

Statistical Analysis of Factors Associated with Attrition

The analysis above, particularly Figure II-2, shows that a key correlate with teacher attrition is teacher age. Using a regression analysis, APA examined whether the location of the school or student characteristics were also correlated with teachers leaving the system. Regression analysis, as a statistical technique, allows identification of factors correlated with teacher departures while still holding the other factors in the regression constant.

APA used a logistic regression—the appropriate tool for regression analysis when the outcome (in this case, departure) is a yes or no. The analysis looks at three types of predictors of attrition. First are demographic predictors associated with the teachers’ ages and education levels. The descriptive analysis above has shown these predictors are associated with attrition. Second, the analysis looks at whether location is associated with attrition—that is, whether the district where a person worked was associated with higher rates of attrition. Finally, the analysis examines whether student characteristics are associated with higher rates of attrition. Extensive research on teacher attrition has shown that schools

with more low-income students (i.e. more students qualifying for free and reduced lunch) and schools with lower student performance have higher rates of teacher attrition.²

The full regression results are shown in Appendix A. Table II-10, below, provides a summary. The regression measures whether each of the predictors is associated with teachers' decisions to leave (attrition). The column on the right, notes if the predictor is statistically associated with a teacher's decision to leave. All of the indicators of year are significant, as are all of the measures of a teacher's age and experience. None of these findings is surprising, given the differences in attrition by year and the associations between attrition and age and experience.

Where a teacher works is generally not associated with the decision to leave, except in the charter district. In fact, three of the four factors associated with the schools where teachers work are *not* associated with attrition: percent of students qualifying for free and reduced lunch; percent of students who are proficient in reading; and measure of student transience, which identifies the percent of students who are enrolled for the entire year.

It is important to note the direction for each factor. A positive direction means that when the factor is present or goes up, attrition also goes up. A negative direction means when a factor is present or goes up, attrition goes down. Factors that were statistically shown to be associated with attrition include: working in the charter district (positive); receiving a \$1,500 hard-to-staff bonus (negative); and percent of students who are proficient in math (negative). These associations do not necessarily mean that these factors caused teachers to be retained or leave; rather, the associations simply show correlations. Other, unmeasured factors could have caused these changes in attrition, and should not be ruled out as possibilities.

Receiving one \$1,500 stipend correlates with about a three percentage point reduction in attrition. It should be noted that APA tested five different bonuses: (1) \$1,500 hard-to-staff; (2) \$750 hard-to-staff for half-time teachers; (3) \$3,000 retention of licensed special education #1; (4) \$3,000 retention of licensed special education #2; and (5) \$4,000 retention of licensed special education #3. The \$750 hard-to-staff, \$3,000 retention of licensed special education #1, \$3,000 retention of licensed special education #2, and \$4,000 retention of licensed special education #3 bonuses were received by so few people (fewer than 10 teachers per year) that it was impossible to statistically test whether they were associated with attrition. The \$1,500 hard-to-staff bonus, in contrast, had about 1,200 recipients in 2011 and 2012.

Working in the charter school district is associated with a six percentage point increase in probability of attrition. As with the hard-to-staff bonus analysis, this does not necessarily mean that working in this district causes higher attrition; it is simply a correlation.

² Borman, G.D. and N.M. Dowling. 2008. Teacher Attrition and Retention: A Meta-Analytic and Narrative Review of the Research. *Review of Educational Research* 78: 367–409.

Finally, higher math proficiency scores are associated with lower attrition. It is common to find lower attrition in higher-achieving schools. The changes associated with increased achievement are very small, though; about a 0.1 percentage point decrease in attrition is associated with a 10 percentage point increase in math proficiency at a school.

Table II-10		
Summary of Regression Results Predicting Whether a Teacher Will Leave		
Predictors	Direction	Statistically Significant
Total years of Service Credit	-	Yes
Indicates has 3 or fewer years of service credit	+	Yes
Year is 2010	+	Yes
Year is 2011	+	Yes
Year is 2012	+	Yes
Age is 62 or higher	+	Yes
Works in the Charter district	+	Yes
Works in the Central district		No
Works in the Hawaii district		No
Works in the Honolulu district		No
Works in the Kauai district		No
Works in the Leeward district		No
Works in the Maui district		No
Percent proficient in reading		No
Percent proficient in math	-	Yes
Percent of Students who qualified for free and reduced lunch		No
Percent of students enrolled for entire school year		No
Received a \$1,500 Hard-to-staff bonus	-	Yes
Constant	-	Yes

Conclusion

Hawaii's teacher pay system is based on a traditional salary schedule that rewards education levels and years of service. Education recognition includes six possible classes, accounting for 15 possible steps. The steps do not directly match years of experience. The limited number of steps—only 12 for teachers who have completed a SATEP—result in teachers spending multiple years, sometimes up to half a decade or more, in one step.

Teachers coming into the system are most often coming on at Steps 5, 6, or 7 in all four years of data examined. While teachers are entering (or returning to) the profession at almost all ages, the majority of teachers entering the system are young. The age distribution of teachers leaving the system follows the traditional U-shaped distribution, with high proportions of leavers who are under 35 and over 55.

Regression analysis was used to examine factors associated with attrition. Generally the district where teachers work is not associated with attrition. Factors associated with attrition, other than age and experience, are working in the charter district (higher attrition), receiving a \$1,500 hard-to-staff bonus (lower attrition), and percent of students who are proficient in math (lower attrition). Student characteristics such as higher assessment scores or lower proportions of free and reduced lunch students are often associated with lower teacher attrition. The relationship between these factors and attrition in the Hawaii data were not as strong as relationships found in some prior research.³ All of these associations do not mean that these factors necessarily caused teachers to stay or to leave. We cannot rule out other, unmeasured factors that could also be associated with these changes in attrition.

³ Borman, G.D. and N.M. Dowling. 2008. Teacher Attrition and Retention: A Meta-Analytic and Narrative Review of the Research. *Review of Educational Research* 78: 367–409.

III. COMPARABLE WAGE ANALYSIS

Individuals considering becoming a teacher are influenced by comparisons of teacher wages to those of a broad array of other occupations. Similarly, studies have found that teaching salaries, relative to other occupation salaries, influence teacher exit rates.⁴

Because of the impact salary levels of comparable occupations have on the ability of schools systems to recruit and retain quality teachers, it is important to examine how teaching salaries compare with salaries in other occupations. Salaries vary across fields for a variety of reasons. In a supply and demand framework, salaries vary in part based on how specialized of a skill set is required. This increases training and education costs for individuals who wish to pursue that career and limits the number of individuals who are able to enter that profession. As a result, highly specialized or technical occupations tend to command higher salaries. These occupations also tend to attract the most skilled and able individuals.

In the case of teaching, the set of skills required for entry into the profession is not as highly specialized as some other comparable professional occupations. However, teachers vary substantially in ability and effectiveness, with high quality teachers making significant impacts on student outcomes.⁵ As a result, while the current range of teaching salaries might be sufficient to fill available teaching positions, higher salaries that are more competitive with the occupations that tend to attract the most skilled and effective workers could enable recruitment of a greater number of higher quality candidates into the teaching field, thus influencing student outcomes.⁶

Working conditions are a second factor in wage comparisons across occupations. Careers that are particularly dangerous tend to command a premium to compensate for negative qualities. Other careers with more favorable working conditions can attract individuals even if salaries are somewhat lower. Such pay differences due to positive or negative working conditions are known as “compensating differentials.” Teaching jobs have a set of conditions that tend to be largely favorable in comparison to other professional occupations: weeks of work per year for a full-time position are lower than weeks of work for many other full-time occupations, and teaching tends to have a favorable set of health and retirement benefits.

In light of these considerations, we use a variety of methods to compare teaching to other occupations within Hawaii. Because of the inherent differences in the skills, attributes, and benefits across occupations, this study puts salary comparisons in Hawaii within the context of similar salary comparisons in other states. For example, if registered nurses across the country tend to work more

⁴ Hanushek, E. A., Kain, J. F., & Rivkin, S. G. (2004). Why public schools lose teachers. *Journal of Human Resources*, 39(2), 326-354. and Guarino, C. M., Santibanez, L., Daley, G. A., & Brewer, D. J. (2004). A review of the research literature on teacher recruitment and retention. Santa Monica, CA: RAND Corporation.

⁵ Rockoff, J. E. (2004). The impact of individual teachers on student achievement: Evidence from panel data. *American Economic Review*, 247-252.

⁶ Loeb, S., & Page, M. E. (2000). Examining the link between teacher wages and student outcomes: The importance of alternative labor market opportunities and non-pecuniary variation. *Review of Economics and Statistics*, 82(3), 393-408.

hours than teachers or tend to have more difficult working conditions, it might be expected that salaries for this occupation would be higher. But if the pay gap is larger in Hawaii than in other states, this suggests that teachers in Hawaii are at a competitive disadvantage. This study also provides information on both broad-based comparison occupation groups as well as more narrow groups. Finally, this study presents unadjusted salaries as well as salaries after accounting for differences in hours, weeks of work, characteristics of workers, and advanced degrees.

Sources of Information about Comparison Occupations

The comparable wage comparison relies on two sources of data to make salary comparisons within Hawaii and across the nation. The Bureau of Labor Statistics (BLS) conducts the **Occupational Employment Statistics (OES)** each quarter. The May 2013 data is the most current source of information about salaries across occupations. The advantage of this data is its broad coverage and recent estimates. The OES samples are designed to produce accurate, occupation level mean wage and employment levels for each state in the United States. The disadvantage of the OES data is that it is a survey of employers only, and so does not include personal characteristics of workers. As a result, the data cannot be adjusted for workers' characteristics (e.g., work experience, education, gender, hours of work).

The second source of data is the **American Community Survey (ACS)**, an annual survey by the U.S. Census. The ACS is a "mini census" of households. Sample sizes are much lower in the ACS than in the OES survey, and there is a longer lag for the ACS data release, with 2012 being the most current year available. This data has much smaller sample sizes. So comparisons to specific occupations are more difficult when only a few individuals report a given occupation. However, these data are rich sources of information about personal characteristics not found in the OES: individuals report salary income along with demographic characteristics, hours and weeks of work, and education level. To increase sample sizes, this analysis uses the American Community Survey 5-Year sample, which contains data from 2008-2012. The ACS data sample is restricted to individuals most similar to teachers. The sample is restricted to individuals with a Bachelor's degree or higher who are not currently in school and who are not self-employed. It is also restricted to full time workers, defined to be those working more than 27 weeks per year and working more than 35 hours per week. To exclude individuals close to retirement age or of ages when their education may not be fully complete, it is also restricted to individuals between the ages of 22 and 65.

Methodological Approach

There are two main challenges in comparing teacher salaries with salaries of other workers: identifying occupations of comparison groups and adjusting for worker characteristics.

Identifying Comparison Occupations

The first methodological issue is determining which occupations to use as comparison groups. This analysis uses four broad categories for comparison to teachers: (1) other college-educated workers; (2) other professional and technical occupations; (3) occupations most similar to teaching; and (4) an expanded set of comparison occupations. In addition, the expanded set of comparison occupations analysis includes disaggregations for comparisons with smaller occupational groups. This analysis

presents comparisons with five narrower occupational groups: social and community service occupations, comparable business occupations, post-secondary teachers and professors, registered nurses and health therapists, and architecture and engineering occupations.

Comparison Group 1: Other College Educated Workers

Comparison Group 1 consists of all other collegeeducated workers. This approach starts with the fact that a potential college student can choose from any occupation open to a person with a Bachelor's degree, including teaching. Some of these possible occupations are unlikely to draw in college-educated workers after they have already entered the teaching profession. For example, a teacher could not change careers and become a lawyer without additional training. However, a college student may well consider the salaries in law along with salaries in teaching when making a career choice. A number of researchers and economists have used wages of college-educated workers in making salary comparisons.⁷ These studies find that salaries of teachers relative to salaries of other college-educated workers are good indicators of the relative attractiveness of teaching.

Comparison Group 2: Professional and Technical Occupations

Comparison Groups 2 through 4 are based on the skills and attributes of the job. By formulating comparison groups on the basis of job skills and attributes, the salaries of teachers may be compared with those of other similarly skilled occupations. Comparison Groups 2 through 4 vary depending on how close of a skill match is used for the comparison. The Bureau of Labor Statistics uses a Standard Occupational Classification (SOC) to categorize occupations based on work performed, skills, education, and/or training (See 2010 SOC User's Guide for more details). Occupations are divided into 23 different major groupings.

Teachers are in the "Education, Training, and Library Occupations" group. These 23 groups are further aggregated into six major categories. Teachers belong to the "Professional and technical occupations" category (OCC Codes 11-000 through 29-999).⁸ This category is also sometimes referred to as "Management, Business, Science and Arts Occupations." Appendix B lists the 11 BLS defined occupational groups included in this category.

Comparison Group 3: EPI Identified Comparison Occupations

More refined lists of comparable occupations have been created using matches based on specific skills and attributes of occupations. The U.S. Bureau of Labor Statistics National Compensation Survey reports the skills and attributes of occupations along 10 dimensions, including factors such as knowledge required, supervision received, and complexity of tasks. The Economic Policy Institute (EPI) analyzed this data to identify 16 occupations most comparable to teaching. The comparison occupations include

⁷ Taylor, L. L. (2008). Comparing teacher salaries: Insights from the US Census. *Economics of Education Review*, 27(1), 48-57. and Loeb, S., & Page, M. E. (2000). Examining the link between teacher wages and student outcomes: The importance of alternative labor market opportunities and non-pecuniary variation. *Review of Economics and Statistics*, 82(3), 393-408.

⁸ The other five categories are Service; Sales and Office; Natural Resources, Construction, and Maintenance; Production, Transportation, and Material Moving; and Military Specific.

registered nurses, accountants, architects, health therapists, and education counselors, among others. These occupations are listed in Appendix B. Allegretto, Corcoran and Mishel (2004) provide the details about the matching process.⁹

Comparison Group 4: Expanded Comparison Group

The EPI list contains highly comparable occupations, but in some cases there are very few individuals in a given occupation, although there may be more in other related occupations. The EPI list also does not contain several specific occupations listed in the Hawaii Teacher Compensation Study RFQ. The Request specifically listed the comparison occupations of post-secondary teachers, nurses, therapists, social workers, engineers, and architects. Although registered nurses, health therapists, and architects are included in the EPI list, the list does not identify post-secondary teachers, counselors, social workers, or engineers as meeting their criteria for comparable occupations. However, the skills and ongoing training required by these occupations is similar to skills and training required in teaching. The Expanded Comparison Group is based on the EPI list of comparable occupations, but additionally includes all occupations in the six occupational groups where worker skills and training are most similar to teachers. These occupations are listed in Appendix B.

The expanded comparison occupations are disaggregated for comparisons with smaller occupational groups. These are community and social service occupations; the comparable business occupations (as defined by EPI); post-secondary teachers and professors; registered nurses and health therapists; architecture and engineering occupations; and all other occupations in the education, training, and library occupations (other than K-12 teachers and post-secondary teachers).

Appendix B summarizes the comparison occupations groups.

Adjusting for the Characteristics of Workers and Occupations

A second methodological issue is whether or not to adjust salaries for worker and job characteristics. For example, if workers in other occupations in Hawaii are older or more experienced than teachers, their average salaries may be higher, even though individuals with similar work experience might in reality be paid comparably. While this is less ambiguous for experience, whether or not to adjust for other characteristics has been subject to considerable debate.

First to consider is the job characteristic of hours and weeks of work. Due to the length of the school day and school year, teachers typically work fewer contract hours and weeks of work than other full-time workers. Some researchers argue that annual salary is the appropriate comparison: In this view, teachers making an employment decision are comparing their pay over the course of the year with what they would make in a year in an alternative career. This implies that teachers would prefer to work additional hours in the summer, but are limited by the characteristics of the job. Others argue that using salary per hour is more appropriate: in this view, teachers' summers off are a benefit of the job. In this view, prospective and current teachers compare their pay per hour with what they could make in the

⁹ Allegretto, S. A., Corcoran, S. P., & Mishel, L. R. (2004). How does teacher pay compare? Methodological challenges and answers. Washington, D.C.: Economic Policy Institute.

same time period in another job. Although annual salaries in teaching might be lower than in another occupation, if the hourly pay is the same, teaching may still be attractive due to the lower hours and fewer weeks of work. The reality is that it is likely that prospective and current teachers probably vary in terms of which comparison they make. Accordingly, the analysis presents both hour-adjusted and un-adjusted wages.¹⁰

A second issue in adjusting wages is whether to adjust for the worker characteristic of advanced degrees. In the United States as a whole, nearly 60 percent of teachers have Master's or other advanced degrees, a much higher proportion than among other comparable occupations. Although Master's degrees in teaching are associated with higher lanes on the salary schedule, some researchers argue that these degrees are not associated with higher performance.

Finally, non-salary benefits may be different among occupations. Retirement pensions and health insurance benefits are fairly standard for teaching, but are becoming less common for other workers. However, there is much less comparable data on retirement and health benefits for non-teaching professions. As a result, this analysis includes some information on the prevalence of employer-provided health insurance benefits for comparable occupations, but no information on retirement benefits.

Salary Comparisons: OES Data on Occupations in Hawaii and Other States

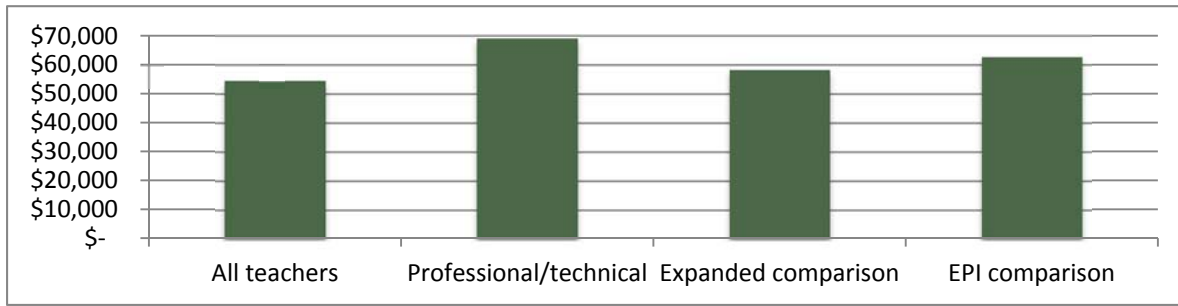
Figure III-1, Figure III-2, and Table III-1 report the results from the comparison of teacher salaries to other occupation salaries using information from OES data. Again, the OES data provides the best coverage of specific occupations across and within states, but contains no information about worker characteristics. The results in this section explore how the measured gap varies across a range of occupational groups.

Teachers in Hawaii in the OES survey made, on average, \$54,410 in 2013. As shown in Figure II-1, this is substantially less than in the three broad occupational categories from Comparison Groups 1 through 3 described above.

Figures III-1 and III-2 show salaries of teachers in Hawaii relative to the other occupations in Hawaii, with the broad classifications in Figure III-1 and the narrower occupational fields in Figure III-2. Figure III-2 shows teacher salaries are lower than salaries in many specific fields (Comparison Group 4), with the exception of social and community service occupations (e.g., counselors and social workers) and other education occupations (not including occupations in post-secondary education).

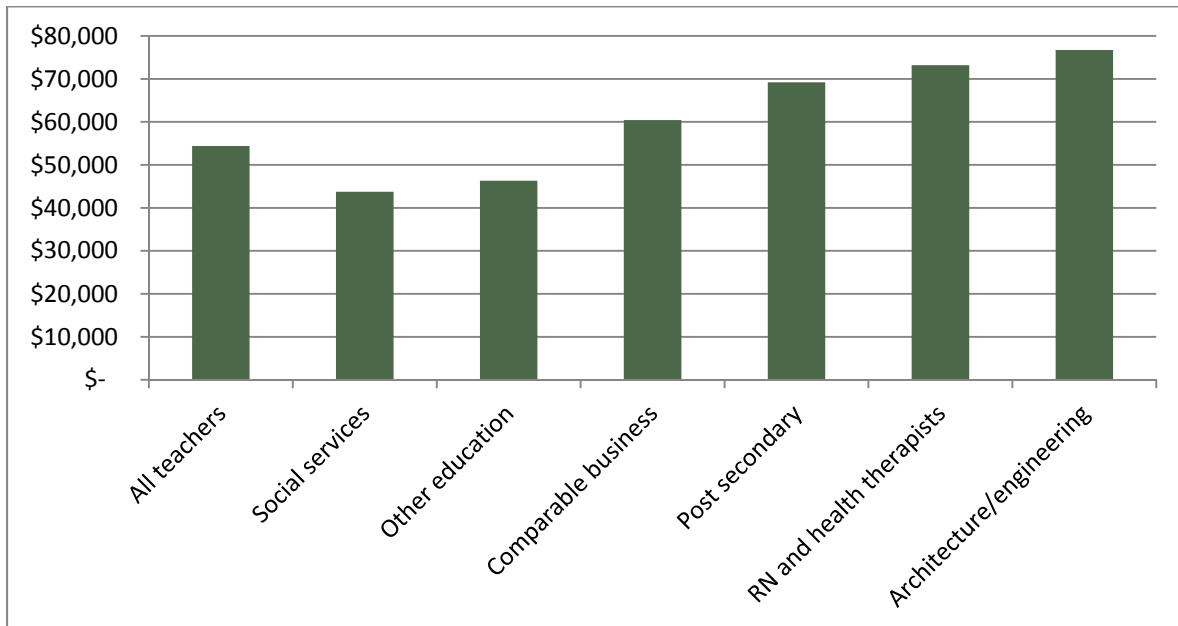
¹⁰ See Ballou and Podgursky (1997) and Allegreto, Corcoran and Mishel (2004) for more details of this debate.

Figure III-1: Average Annual Salaries in K-12 Teaching and Broad Comparison Groups, Hawaii 2013



Source: OES 2013. See Appendix B for definitions of occupation groups.

Figure III-2: Average Annual Salaries in K-12 Teaching and Specific Comparison Occupations, Hawaii 2013



Source: OES 2013. See Appendix B for definitions of occupation groups.

The data in Figures III-1 and III-2 shows that teacher salaries in Hawaii are lower than in many of the comparison occupations. This leads to a question about whether salary patterns seen in Hawaii are similar to patterns seen in other states. Although there is a significant pay gap between teachers and other professional workers in Hawaii, Table III-2 indicates that teachers are paid less in comparison occupations in rest of the United States as well. As noted, this may be in part due to the other characteristics of the teaching profession. Table III-2 also shows that professional salaries are lower in Hawaii than in the rest of the United States.

Table III-1		
Average Annual Wages of Teachers and Comparison Occupations		
	Hawaii	Other States in US
K-12 Teachers	\$54,410	\$56,560
Broad Comparison Group Occupations		
Other Professional/technical occupations	\$69,196	\$74,898
Expanded comparison group	\$58,290	\$65,293
EPI comparison group	\$62,799	\$69,484
By Individual Occupation Fields		
Social services and community occupations	\$43,746	\$44,722
Other education occupations (Non K-12 teachers or Post-secondary)	\$46,303	\$46,681
Comparable business occupations (See EPI list)	\$60,409	\$68,772
Post-secondary teachers	\$69,215	\$73,370
Registered Nurses and health therapists	\$73,174	\$73,263
Architecture/Engineering occupations	\$76,733	\$80,024

Source: OES 2013. See Table 1 for definitions of occupation groups.

Table III-2 quantifies the differences in professional salaries in Hawaii compared to the rest of the United States. However, this geographic pay differential varies by occupation. Teachers in Hawaii make about four percent less than teachers in the rest of the United States. Registered nurses, health therapists, social and community service workers, and other education workers make about the same salary in Hawaii as in other states. The pay gap for the broader groups of professional and technical occupations and aggregated comparison occupations is larger, with Hawaii wages about 10 percent lower than wages in the rest of the US.

Table III-2	
Average Annual Wages in Hawaii Relative to Wages in Other States in US	
	Hawaii Annual Wages as a Percentage of US Annual Wages
All Teachers	96%
Comparison Group 1: Professional/technical occupations	92%
Comparison Group 2: Expanded comparison group	89%
Comparison Group 3: EPI comparison occupations	90%
Social service and community occupations	98%
Other education (Non K-12 teachers or Post-secondary)	99%
Comparable business occupations	88%
Post-secondary teachers	94%
Registered Nurses and health therapists	100%
Architecture/engineering Occupations	96%

Source: OES 2013. See Appendix B for definitions of occupation groups.

Table III-3 reports the pay gap between teaching wages and other occupations in Hawaii and in the rest of the United States. In Hawaii, teachers make a little more than three-fourths of what other professional and technical workers make. The gap is somewhat smaller for comparison occupations. The expanded group of comparison occupations shows a gap of six percent, while the gap relative to the EPI-defined comparison occupations is 15 percent. Teachers in Hawaii make more than social and community service occupations and more than other education occupations (with the exception of post-secondary teachers and professors). Teachers in Hawaii make about 10 percent less than the EPI-defined comparable business occupations. The pay gap relative to post-secondary teachers and professors, registered nurses and health therapists, and architecture and engineering occupations is much larger, at 20 to 30 percent.

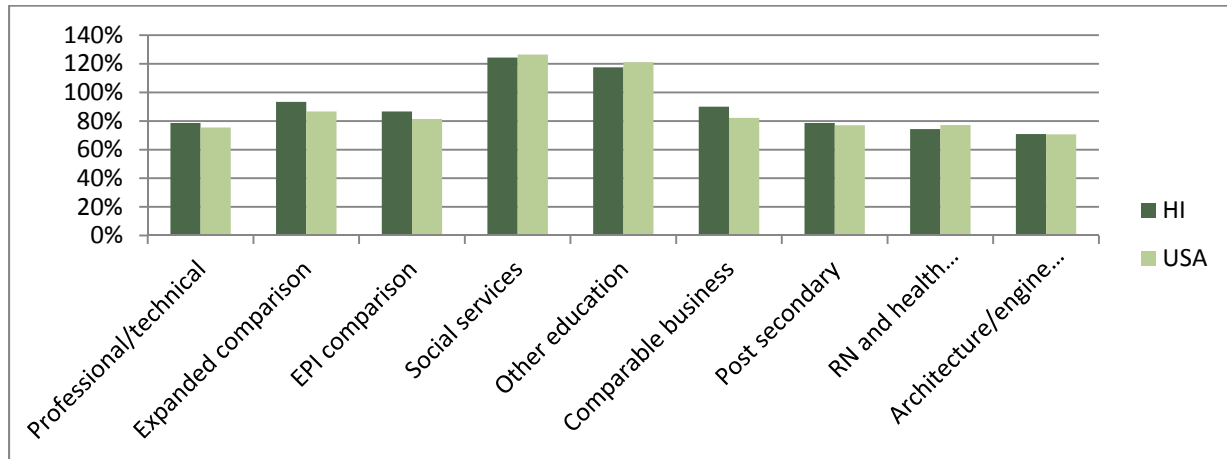
However, the pay gap tends to be even larger in the rest of the United States. The only exception is for registered nurses and health therapists, where teacher pay in Hawaii relative to these occupations is lower than in the rest of the US.

Table III-3		
Wages in Teaching as a Percentage of Wages in Comparison Group Occupation		
	Hawaii	United States
Teaching Wage	100%	100%
Group 1: Professional/technical occupations	78.6%	75.5%
Group 2: Expanded comparison group	93.3%	86.6%
Group 3: EPI comparison group	86.6%	81.4%
Social services and community occupations	124.4%	126.5%
Other education (Non K-12 teachers or Post-secondary)	117.5%	121.2%
Comparable business occupations	90.1%	82.2%
Post-secondary teachers	78.6%	77.1%
Registered Nurses and health therapists	74.4%	77.2%
Architecture/engineering Occupations	70.9%	70.7%

Source: OES 2013. See Appendix B for definitions of occupation groups.

Figure III-3 shows teaching salaries as a percentage of comparison occupation salaries in Hawaii (the darker shaded bars) and in the United States (the lighter shaded bars). Overall, the pay gap in Hawaii is similar to the gap in the United States, with somewhat higher ratios in most comparable occupations.

Figure III-3: Wages in Teaching as a Percentage of Wages in Comparison Group Occupations, Hawaii and Other States in US



Source: OES 2013. See Appendix B for definitions of occupation groups.

Salary Comparisons: ACS Data on Individuals in Hawaii and Other States

The OES data have the advantage of having a high level of coverage, enabling comparisons for relatively narrow occupation groups. However, the OES do not contain characteristics of individuals. To see how teacher characteristics compare with characteristics of other workers, and to see how salaries are related to these characteristics, the ACS is the best source of data.

Table III-4 reports average characteristics of the sample of full-time, full-year workers in Hawaii and in other states. This table uses two comparison groups: all workers with at least a Bachelor's degree, and workers with a Bachelor's degree who are in one of the EPI-defined comparable occupations (Comparison Group 3).

Table III-4						
Average Characteristics of Full-Time Workers in Hawaii and Other States						
American Community Survey 5-Year Sample 2012						
<i>(Standard Deviations of Characteristics in Parentheses)</i>						
	Hawaii			Other States in US		
	Teachers	Comparable Occupations, BA+	All Non-teachers with BA+	Teachers	Comparable Occupations, BA+	All Non-teachers with BA+
Annual wage/salary income	\$50,011	\$63,526	\$69,606	\$53,341	\$72,542	\$73,553
	(14852)	(34810)	(20064)	(20064)	(53621)	(52088)
Usual Hours worked per week	43.44	43.2	44.84	43.79	43.74	44.87
	(8.00)	(7.73)	(7.17)	(7.17)	(7.13)	(9.14)
Work Less than 48 weeks per year	0.13	0.04	0.05	0.24	0.05	0.05
	(0.33)	(0.20)	(0.43)	(0.43)	(0.22)	(0.21)
Insurance provided	0.95	0.94	0.89	0.96	0.93	0.91
	(0.22)	(0.24)	(0.31)	(0.19)	(0.26)	(0.28)
Advanced degree	0.52	0.37	0.32	0.57	0.37	0.36
	(0.50)	(0.48)	(0.50)	(0.50)	(0.48)	(0.47)
Age	43.9	44.82	44.76	44.14	42.98	43.27
	(11.41)	(11.35)	(11.22)	(11.22)	(11.35)	(11.34)
Female	0.71	0.59	0.48	0.76	0.56	0.45
	(0.45)	(0.49)	(0.43)	(0.43)	(0.50)	(0.50)
Nonwhite	0.62	0.68	0.61	0.15	0.23	0.22
	(0.49)	(0.47)	(0.36)	(0.36)	(0.42)	(0.49)
Observations	657	746	6,552	133,893	168,036	1,392,987

The data is restricted to individuals with the following characteristics: (1) not currently in school; (2) possess a Bachelor's degree or higher; (3) work more than 27 weeks per year; (4) work more than 35 hours per week; (5) are not self-employed; and (6) are between the ages of 22 and 65. The comparable occupations are jobs similar to teaching as identified by the Economic Policy Institute (2004): accountants and auditors, registered nurses, occupational therapists, physical therapists, trade and industrial teachers, vocational and educational counselors, underwriters, personnel-training and labor relations specialists, inspectors and compliance officers (except construction), architects, forestry and conservation scientists, archivists and curators, clergy, technical writers, editors and reporters, and computer programmers (Category 3 above).

The ACS also indicates that teachers in Hawaii make substantially less than non-teachers. The average teacher makes about 40 percent less than the average college-educated non-teacher, and about 25 percent less than the average college-educated individual in a comparable occupation. The estimated pay gap for this occupation group is similar to the estimated gap in the OES data. Teachers in Hawaii and in the U.S. work about an hour less per week than other college-educated workers, and they work substantially fewer weeks—13 percent of teachers in Hawaii work fewer than 48 weeks per year, while only five percent of other college-educated workers have as short of an annual calendar. However, teachers in Hawaii are more likely to work more weeks annually than teachers in other parts of the United States: Thirteen percent of Hawaii teachers work fewer than 48 weeks per year, compared to 24 percent of teachers in the rest of the United States. Teachers in Hawaii are also somewhat more likely to have insurance offered through their employment than other college-educated workers, although the proportion is similar to the most comparable occupations. They are also slightly younger than other college-educated workers, and they are more likely to be female. They are substantially more likely to have a Master's or other advanced degree.

Table III-5 performs similar salary comparisons as above, but includes adjusted wages. The unadjusted wages are the same as shown in Table III-4. The adjustments are made to control for workforce characteristics such as average education levels and age and occupational characteristics such as hours and weeks worked per year. Essentially, the adjustment methodology asks, "If the average non-teacher had characteristics that were the same as the average teacher in Hawaii, what would their average salary be?" Wages are adjusted by performing a regression analysis for each category of worker (e.g., comparable workers in Hawaii, all workers with a BA in Hawaii, etc.). The regression coefficients indicate the relationship salary has to each characteristic in that occupation and location. For example, non-teachers in Hawaii make about \$1,340 more dollars per year for every additional hour per week worked above 35 hours. The hour premium in the comparison occupations is somewhat lower, at \$570 more dollars per year. The wages are then adjusted by multiplying the regression coefficients by the average characteristics of teachers in Hawaii. This methodology is known as an Oaxaca Decomposition.

As noted earlier, the exact characteristics used to adjust wages is somewhat controversial, with various parties taking different positions on whether to adjust for the shorter hours and weeks of work, advanced degrees, and other demographic characteristics. Table III-5 shows that the adjustment matters

somewhat. However, in even the most conservative case, teachers in Hawaii still make 25 percent less than other comparable workers in Hawaii, with pay gaps that are even larger when compared to all professional and technical workers. However, as in the OES data, the pay gap for teachers relative to other occupations is even larger in the rest of the United States with the smallest differential being about 32 percent.

Table III-5				
Teaching and Non-teaching Salaries Adjusted for Individual Characteristics, American Community Survey 5 Year Sample 2012				
	Actual Salary	Salary Adjusted to Match Hours and Weeks of Work of HI Teachers	Salary Adjusted to Match Education and Personal Characteristics of HI Teachers	Salary Adjusted to Match Hours, Weeks of Work and Personal Characteristics of HI Teachers
Hawaii				
Teachers	\$50,011			
Comparable Workers	\$63,526	\$62,484	\$64,566	\$63,303
All Full time workers with BA	\$69,606	\$65,940	\$73,892	\$70,720
US				
Teachers	\$53,341	\$53,468	\$54,605	\$54,725
Comparable Workers	\$72,542	\$70,652	\$77,952	\$76,711
All Full time workers with BA	\$73,553	\$78,480	\$87,216	\$83,677

Source: IPUMS ACS 5 Year 2012.

The sample is restricted to individuals not currently in school, with a Bachelor's degree or higher, working more than 27 weeks per year, working more than 35 hours per week, not self-employed, and between the ages of 22 and 65. The comparable occupations are jobs similar to teaching, as identified by the Economic Policy Institute (2004). See Appendix B for details.

Conclusion

Based on OES and ACS data, teachers in Hawaii make, on average, less than most other comparable occupations in Hawaii. The largest gap (about 40 percent) is for average teacher salary relative to average salaries for all college-educated workers. Gaps for more narrowly-defined comparable occupations tend to be smaller, with estimated gaps of about 10 to 25 percent. Gaps are particularly large relative to nurses and other health therapists, but teacher salaries are higher on average than the salaries of social and community service workers and other education occupations. Adjusting gaps for teacher characteristics only marginally changes the overall ratios. However, the gaps in Hawaii relative to other occupations tend to be on the order of five percentage points smaller than parallel gaps in the United States as a whole.

IV. SALARY STRUCTURE AND LEVEL COMPARISONS

The following section compares Hawaii's teacher salary structure to that of other school districts from across the country. We first describe how comparison districts were selected for the study. Second, we compare Hawaii's salary structure to comparison districts' structures. Third, we compare Hawaii's yearly salaries to those of comparison districts' without adjusting for workload or cost of living. Finally, we compare salaries, adjusting for workload and cost of living individually and then together.

Selecting Comparison Districts

Selecting districts to use in a comparison of teacher salary structures and levels is difficult for Hawaii. Hawaii is unique because it is the only statewide school district in the country and because of its desirable island location. Often, when selecting comparison districts, one would focus on: districts competing directly with the study district for in-state personnel; those districts competing for the same out-of-state personnel; and districts of similar size and/or demographics from both in- and out-of-state. Hawaii's unique circumstances provide it with no neighboring districts for which it competes for personnel, nor any obvious out-of-state districts with which it generally competes.¹¹

Still, comparison districts for Hawaii can be selected based on factors like size and demographics. To find such comparison districts, APA examined the National Center for Education Statistics data for the 2011-12 school year, the most recent data available, looking at districts with over 100,000 students. APA identified a number of districts similar in size to Hawaii that also have a similar percentage of students eligible for free and reduced price lunches. Table IV-1 below shows the districts selected based on size and demographics.

Table IV-1			
District Name	State	Total Public Students	Free/Reduced Lunch Percentage
Hawaii	Hawaii	182,705	49.30%
Broward	Florida	258,478	57.1%
Clark County	Nevada	312,892	59.5%
Fairfax County	Virginia	177,551	25.7%
Houston	Texas	203,012	44.9%
Miami-Dade	Florida	350,239	71.9%
Montgomery County	Maryland	146,459	32.2%
Palm Beach	Florida	176,901	53.5%
San Diego [^]	California	130,719	
Wake County	North Carolina	148,120	34.5%

[^]San Diego's FRL data was not available but the district was selected based on size and because it was identified by Hawaii staff as a good comparison district.

¹¹ Based on conversations with DOE staff when selecting comparison districts.

In discussions with Hawaii DOE staff it became clear that the large military presence in Hawaii has an impact on the available teaching pool. With this in mind, APA also identified a number of districts that also have a large military presence to use for comparison. A membership organization called the Military Impacted Schools Association represents districts with a large military presence in their schools. Hawaii is a member of this organization, and the three districts with the largest overall student enrollment were chosen from the membership list to include as comparison districts. Table IV-2 lists the three districts with their size and free and reduced price lunch information.

Table IV-2			
Agency Name	State	Total Public Students	Free/Reduced Lunch Percentage
Hawaii	Hawaii	182,705	49.3%
Cumberland County	North Carolina	53,048	47.9%
Killeen	Texas	40,998	41.8%
Virginia Beach	Virginia	70,978	28.5%

APA collected salary structure information for all the comparison districts; this generally included a salary schedule, contract days, and, when possible, workload information such as length of day. APA also identified the total number of paid days for each district, a factor discussed later in this section.

Structure of District Salary Systems

As is true of many districts, Hawaii's salary schedule includes adjustments both for teacher education level and teacher experience. Education recognition includes six possible classes, starting with Class II (a Bachelor's degree) and ending with Class VII (a Doctorate or a teacher with a Master's degree who has also accumulated 60 credits). Teachers with a Bachelor's degree and 30 credits are in Class III, along with those with Master's degrees. Additional increments of 15 credits differentiate Classes IV through VI. The recognition of experience is expressed in 15 possible steps.

Table IV-3 shows the number of educational classes, number of steps, minimum and maximum salaries, and the range between the minimum and maximum salaries for Hawaii and the comparison districts¹². Hawaii's 2014-15 salary schedule has a minimum salary in the salary schedule, for teachers who have completed a SATEP of \$44,538 (using Exhibit B from the July 1, 2013 agreement as to not include additional pay for the 21 extra hours and the additional PD day). This does not include any additional stipends teachers may be able to earn, but only examines base pay from the salary schedule. The maximum pay is for a teacher at Step 14B with a Doctorate or Master's and 60 credits, at \$81,703. This represents a total range of possible base salary of \$37,165.

¹² Data for Miami-Dade are for the 2013-14 school year, since data is not yet available for the 2014-15 school year. Data for Houston are also for the 2013-14 school year, as the compensation is shifting in the district and the 2013-14 school year is most comparable data available for this analysis.

Table IV-3					
	Number of Education Classes	Number of Steps	Minimum Salary	Maximum Salary	Range
Hawaii	6	15	\$44,538	\$81,703	\$37,165
Broward	4	20	\$40,000	\$79,250	\$39,250
Clark	9	14	\$34,684	\$72,427	\$37,743
Cumberland County	2	33	\$33,000	\$57,530	\$24,530
Fairfax County	6	27	\$46,756	\$100,898	\$54,142
Houston	3	19	\$46,805	\$75,866	\$29,061
Killeen	3	21	\$43,500	\$52,755	\$9,255
Miami-Dade	4	20	\$40,500	\$77,525	\$37,025
Montgomery County	4	20	\$46,410	\$103,364	\$56,954
Palm Beach	5	27	\$39,000	\$79,750	\$40,750
San Diego	5	17	\$42,210	\$87,177	\$44,968
Virginia Beach	3	36	\$40,624	\$73,935	\$33,311
Wake County	2	37	\$35,189	\$68,884	\$33,695
Comparison Average	4	24	\$40,723	\$77,447	\$36,724

The majority of comparison districts' salary schedules have fewer class levels than Hawaii. The average number of class levels for comparison districts is four. Comparison districts also tend to align classes more closely to degree attainment than to simply earning additional credits.

Comparison districts have, on average, 24 steps—a much higher number than Hawaii's 15. When looking only at the steps for teachers who have completed a SATEP, Hawaii has just 12 steps. The range for the comparison districts is large, from 11 to 37 steps. Like Hawaii, districts with fewer steps have less alignment between steps and years of service. This means that teachers spend more time in each individual step. Thus, teachers do not have salary increases unless an overall salary increase occurs, or unless they attain a higher class level. Districts with more steps tend to have closer alignment between years of service and steps. Still, many districts do not allow young teachers to move up steps until they are few years into their career.

The salary information in Table IV-3 has not been adjusted for job characteristics such as workload, days or hours, or cost of living differences between districts. The examination is simply based on total salary figures, and provides a comparison of the raw salaries of Hawaii and the comparison districts. Also, Hawaii salaries are examined only at Step 5 and above; Steps 1 through 3 are only for teachers who have not completed an SATEP, the comparison districts did not have comparable steps. Hawaii's minimum salary, \$44,358, is higher than the average minimum salary of comparison districts, which is \$40,723. Hawaii's highest possible salary, \$81,703, is also higher than comparison districts' average of \$77,447.

The range between minimum and maximum salaries averages \$36,724, which is very similar to the Hawaii range of \$37,165.

Table IV-4 shows minimum and maximum salaries for Bachelor's, Master's, and Doctorate degree classes.

Table IV-4						
	Minimum BA Salary	Maximum BA Salary	Minimum MA Salary	Maximum MA Salary	Minimum Doctorate Salary	Maximum Doctorate Salary
Hawaii	\$44,538	\$63,446	\$48,100	\$68,522	\$57,353	\$81,703
Broward	\$40,000	\$71,250	\$43,650	\$74,900	\$48,000	\$79,250
Clark	\$34,684	\$41,292	\$40,276	\$53,342	\$46,008	\$69,281
Cumberland County	\$33,000	\$50,000	\$36,300	\$55,000	\$38,830	\$57,530
Fairfax County	\$46,756	\$85,948	\$52,530	\$97,188	\$56,164	\$100,898
Houston	\$46,805	\$68,856	\$47,876	\$72,360	\$48,948	\$75,866
Killeen	\$43,500	\$51,000	\$44,675	\$52,175	\$45,255	\$52,755
Miami-Dade	\$40,500	\$70,325	\$43,600	\$73,425	\$47,700	\$77,525
Montgomery County	\$46,410	\$62,201	\$51,128	\$96,966		
Palm Beach	\$39,000	\$73,750	\$42,000	\$76,750	\$45,000	\$79,750
San Diego	\$42,210	\$66,707	\$44,785	\$76,746		
Virginia Beach	\$40,624	\$69,835	\$43,124	\$72,335	\$44,724	\$73,935
Wake County	\$35,189	\$62,354	\$38,877	\$68,884		
Comparison Average	\$40,723	\$64,460	\$44,068	\$72,506	\$46,737	\$74,088

Again, Table IV-4 only looks at Hawaii salaries for Step 5 and above. Hawaii minimum salaries are higher than all of the average minimum salary figures for comparison districts, and the Hawaii minimum is much higher for employees with a Doctorate or a Master's plus 60 credits. Comparison district average maximum salaries are higher for both Bachelor's and Master's degrees. The Hawaii Doctorate maximum salary is much higher than the comparison district average. However, the amount of growth that can occur between minimum and maximum salaries in each class tends to be smaller in Hawaii than in comparison districts. That is, Hawaii teachers have less room for salary growth within a class than teachers in comparison districts.

The analysis above, in Tables IV-3 and IV-4, compares the minimum and maximum salary points for Bachelor's, Master's, and Doctorate classes. The next section provides detailed comparisons of 12 salary points of the Hawaii salary schedule to the comparison districts. The comparisons are based on the distribution of teachers in Hawaii's 2013-14 salary schedule. The analysis begins by examining the

proportion of teachers in each cell of Hawaii's salary schedule. Table IV-5 shows the distribution of teachers in Hawaii's salary schedule by percentage of teachers in each cell.

Table IV-5						
Step	Class II	Class III	Class IV	Class V	Class VI	Class VII
1	1.2%	0.1%	0.0%	0.0%	0.0%	0.0%
2	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
3	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
5	4.1%	4.9%	0.3%	0.1%	0.0%	0.1%
6	7.0%	11.7%	2.0%	0.8%	0.4%	0.4%
7	1.3%	3.2%	1.3%	0.8%	0.5%	1.0%
8	2.9%	5.7%	3.7%	3.0%	2.7%	5.9%
9	0.4%	0.8%	0.9%	1.1%	1.0%	4.3%
10	0.3%	0.6%	0.7%	0.8%	0.9%	4.4%
11	0.1%	0.2%	0.2%	0.2%	0.2%	1.4%
12	0.1%	0.1%	0.2%	0.2%	0.3%	1.5%
13	0.2%	0.4%	0.4%	0.5%	0.6%	3.8%
14	0.1%	0.2%	0.2%	0.2%	0.4%	2.4%
14A	0.1%	0.1%	0.1%	0.1%	0.2%	1.4%
14B	0.0%	0.1%	0.1%	0.1%	0.3%	1.9%

The goal of the analysis is to identify key comparison points in terms of teacher education and experience levels between Hawaii and other districts based on the current distribution of Hawaii teachers. Table IV-5 shows that in Class II, there are a large number of teachers in Steps 5, 6, and 8. In Class III, a large percentages of teachers are also in Steps 6, 7, and 8. Class IV has 3.7 percent of all teachers in Step 8 and Class V has three percent of the teachers in Step 8. Class VII has high percentages of teachers in Steps 8, 9, 10, and 13.

Using this information, APA identified 12 cells to use as comparison points in a more in-depth salary comparison analysis. To make the comparisons possible, a predicted number of years must be assigned to each step level in the analysis. Based on the information provided in Section II on experience (Table II-5), APA created the imputed years of experience seen in Table IV-6.

Hawaii pays the same for teachers with a Bachelor's and 30 credits as for teachers with a Master's degree in Class III. Many of the comparison districts, however, differentiate between those two levels of education. With this in mind, APA examines Class III pay for teachers with a Bachelor's plus 30 credits separately from teachers with a Master's degree. Looking at these pay rates creates 15 comparison points. Data for all 15 points is shown in all comparison tables.

Table IV-6			
Comparison Points	Hawaii Class	Hawaii Step	Imputed Years of Experience
1	Class II	5	3
2	Class II	6	5
3	Class II	7	9
4	Class III	5	3
5	Class III	6	5
6	Class III	8	11
7	Class IV	8	13
8	Class V	8	13
9	Class VII	8	14
10	Class VII	9	22
11	Class VII	10	24
12	Class VII	13	27

The analysis of comparison total salaries is shown in Tables IV-7A-7C. These tables show information on Hawaii's salary, the average salary of the 12 comparison districts, the minimum salary of comparison districts, the maximum salary of comparison districts, the number of districts below Hawaii's salary, and then number above Hawaii's salary. This format will be used for all salary comparison tables in this section. No adjustments have been made for number of days worked or geographic cost differences.

Table IV-7A below shows that, for the first five comparison points, looking at Classes II and III (BA), Hawaii tends to have higher salaries for Comparison Points 1, 2, 4, and 5. The comparison average is higher for Comparison Point 3, Class II with nine years of experience. In all cases, more districts have salaries below Hawaii's than above Hawaii's.

Tables IV-7A and IV-7B show that average salaries for comparison districts are around two to three thousand dollars higher for those with a Master's degree versus those with a Bachelor's plus 30 credits. Though Hawaii's salaries are still higher for teachers with fewer years of experience, Hawaii's pay for a Master's degree with 11 years of experience is lower than the comparison average. This is also true for Class IV pay with 13 years of experience.

Table IV-7A					
Comparison of Total Salaries					
	Comparison 1	Comparison 2	Comparison 3	Comparison 4	Comparison 5
Class	Class II	Class II	Class II	Class III (BA)	Class III (BA)
Years of Experience	3	5	9	3	5
Hawaii Salary	\$44,538	\$45,874	\$47,250	\$48,100	\$49,544
Comparison Average Salary	\$42,437	\$43,887	\$47,333	\$43,226	\$44,732
Comparison Minimum	\$33,000	\$35,189	\$36,500	\$33,000	\$35,189
Comparison Maximum	\$49,995	\$53,478	\$62,201	\$51,801	\$53,478
Number Below Hawaii	7	8	8	9	9
Number Above Hawaii	5	4	4	3	3

Table IV-7B					
Comparison of Total Salaries					
	Comparison 6	Comparison 7	Comparison 8	Comparison 9	Comparison 10
Class	Class III (BA)	Class III MA	Class III MA	Class III MA	Class IV
Years of Experience	11	3	5	11	13
Hawaii	\$52,561	\$48,100	\$49,544	\$52,561	\$54,663
Comparison Average	\$50,445	\$45,701	\$47,312	\$53,676	\$56,161
Minimum	\$40,000	\$36,300	\$38,877	\$44,000	\$44,000
Maximum	\$66,163	\$56,066	\$60,466	\$75,850	\$81,802
Number Below Hawaii	9	9	9	8	8
Number Above Hawaii	3	3	3	4	4

Table IV-7C shows that, even at the higher levels of education and experience, Hawaii tends to pay more than most of the comparison districts, as shown by the number of districts below Hawaii. Yet, the average salaries of comparison districts are higher for four of the comparison points presented in Table IV-7C. The largest gap is for teachers with 24 years of experience, in Class VII.

Table IV-7C					
Comparison of Total Salaries					
	Comparison 11	Comparison 12	Comparison 13	Comparison 14	Comparison 15
Class	Class V	Class VII	Class VII	Class VII	Class VII
Years of Experience	13	14	22	24	27
Hawaii	\$56,850	\$62,672	\$66,489	\$68,482	\$72,653
Comparison Average	\$57,853	\$59,324	\$68,171	\$71,052	\$73,063
Minimum	\$44,000	\$44,000	\$51,150	\$51,150	\$52,175
Maximum	\$85,285	\$90,051	\$101,354	\$103,634	\$103,634
Number Below Hawaii	8	8	6	5	6
Number Above Hawaii	4	4	6	7	6

Adjusting for Work Load and Geographic Cost Differences

Next, we compare the salaries, adjusting for both workload and geographic cost differences. Workload adjustments include contract days, total contract hours, and paid days. Geographic cost differences adjustments include the Comparable Wage Index (CWI) and Cost of Living (COL) adjustment.

Workload

The next tables look at the comparison points by examining the impacts of differences in teacher workloads. Workload can be examined in a few ways, but it generally includes the number of days contracted for work and the number of hours contracted per day. It is important to remember that contract hours only reflect the number of days explicitly in the contract, and do not include any hours teachers work outside of contract hours. For this study, we are also looking at the paid days for each district. Paid days include paid vacation days within the contract year. Most of the comparison districts did not have explicit figures for paid days, so we examined calendars to estimate the paid days for teachers in each of the 12 districts. Table IV-8 shows Hawaii's figures, comparison average, comparison minimum, and comparison maximum for contract days, work hours, and paid days.

Hawaii has 1.5 fewer days than the comparison district average. Hawaii's average number of work hours is a half an hour lower than the comparison district average. No district has fewer work hours than Hawaii, though a number of districts have equivalent seven-hour work days. Paid days range from 204 to 222 days, with the comparison district average at 211.5, 5.5 days below Hawaii's paid days. Again, most paid days figures are estimates based on the calendar of each comparison district. Hawaii had about 1 percent fewer days and 8 percent fewer hours than comparison districts, but about 2 percent more paid days.

Table IV-8			
Comparison of Contract Days, Work Hours, and Paid Days			
	Contract Days	Work Hours	Paid Days
Hawaii	190.0	7.0	216.0
Comparison Average	191.5	7.5	211.5
Comparison Minimum	184.0	7.0	204.0
Comparison Maximum	200.0	8.0	222.0

Tables IV-9A – 9C show the 15 comparison points after adjusting for contract days. Tables IV-10A-10C then look at the comparisons, adjusting for total contract hours.

Table IV-9A					
Comparison Adjusting for Contract Days					
	Comparison 1	Comparison 2	Comparison 3	Comparison 4	Comparison 5
Class	Class II	Class II	Class II	Class III (BA)	Class III (BA)
Years of Experience	3	5	9	3	5
Hawaii	\$44,538	\$45,874	\$47,250	\$48,100	\$49,544
Comparison Average	\$42,159	\$43,607	\$47,019	\$42,960	\$44,465
Minimum	\$32,320	\$34,463	\$35,747	\$32,320	\$34,463
Maximum	\$48,713	\$52,453	\$60,910	\$51,358	\$55,114
Number Below Hawaii	7	7	7	9	9
Number Above Hawaii	5	5	5	3	3

Tables IV-9A above and Tables IV-9B and IV-9C below all show that when adjustments are made for contract days, Hawaii's salaries tend to become more competitive in relationship to the comparison group average. The movement is not large, but is enough to cause Hawaii's salary to be above the comparison average for some comparisons, where it was below the averages without adjustments (shown in Tables 7A-7C). However, Hawaii's salary is still lower than the comparison district average for Comparison Points 13 and 14.

Table IV-9B					
Comparison Adjusting for Contract Days					
	Comparison 6	Comparison 7	Comparison 8	Comparison 9	Comparison 10
Class	Class III (BA)	Class III MA	Class III MA	Class III MA	Class IV
Years of Experience	11	3	5	11	13
Hawaii	\$52,561	\$48,100	\$49,544	\$52,561	\$54,663
Comparison Average	\$50,145	\$45,401	\$47,008	\$53,322	\$55,789
Minimum	\$39,175	\$35,552	\$38,076	\$43,093	\$43,093
Maximum	\$68,320	\$54,628	\$58,916	\$73,905	\$79,705
Number Below Hawaii	8	8	9	8	8
Number Above Hawaii	4	4	3	4	4

Table IV-9C					
Comparison Adjusting for Contract Days					
	Comparison 11	Comparison 12	Comparison 13	Comparison 14	Comparison 15
Class	Class V	Class VII	Class VII	Class VII	Class VII
Years of Experience	13	14	22	24	27
Hawaii	\$56,850	\$62,672	\$66,489	\$68,482	\$72,653
Comparison Average	\$57,512	\$58,980	\$67,721	\$70,547	\$72,514
Minimum	\$43,093	\$43,093	\$50,095	\$50,095	\$53,012
Maximum	\$83,098	\$87,742	\$98,755	\$100,977	\$100,977
Number Below Hawaii	8	8	7	6	7
Number Above Hawaii	4	4	5	6	5

To examine total workload, contract days and hours per day can be multiplied to create total hours contracted per year. Hawaii's total workload, 190 days multiplied by 7 hours, would be 1,330 contract hours. Comparison districts' total workloads range from 1,325 to 1,552 contract hours, with an average of 1,443 hours. This is around 8.5 percent more contract hours than Hawaii.

Tables IV-10A – 10C below run the comparisons, adjusting for total contract hours and hours per day. When salaries are adjusted by contract hours, Hawaii salaries become even more competitive relative to comparison districts. Hawaii's salary is higher than the comparison district average for all 15 comparison points—in many cases, much higher. Tables IV-10A and IV-10B show that, in Classes II and III, Hawaii has a higher salary than the vast majority of comparison districts other than for Comparison Point 9.

Table IV-10A					
Comparison Adjusting for Contract Hours					
	Comparison 1	Comparison 2	Comparison 3	Comparison 4	Comparison 5
Class	Class II	Class II	Class II	Class III (BA)	Class III (BA)
Years of Experience	3	5	9	3	5
Hawaii	\$44,538	\$45,874	\$47,250	\$48,100	\$49,544
Comparison Average	\$39,213	\$40,570	\$43,734	\$39,960	\$41,372
Minimum	\$30,156	\$30,156	\$33,364	\$30,156	\$30,156
Maximum	\$48,713	\$52,107	\$60,606	\$48,713	\$52,107
Number Below Hawaii	11	10	9	11	11
Number Above Hawaii	1	2	3	1	1

Table IV-10B					
Comparison Adjusting for Contract Hours					
	Comparison 6	Comparison 7	Comparison 8	Comparison 9	Comparison 10
Class	Class III (BA)	Class III MA	Class III MA	Class III MA	Class IV
Years of Experience	11	3	5	11	13
Hawaii	\$52,561	\$48,100	\$49,544	\$52,561	\$54,663
Comparison Average	\$46,639	\$42,261	\$43,773	\$49,665	\$51,973
Minimum	\$36,493	\$33,181	\$33,316	\$40,220	\$40,220
Maximum	\$60,606	\$54,628	\$58,916	\$73,905	\$79,705
Number Below Hawaii	9	10	10	8	8
Number Above Hawaii	3	2	2	4	4

Hawaii's salaries are still above the comparison district averages for Comparison Points 9 through 15 (i.e. higher points on the salary schedule), but more districts begin to have higher salaries than Hawaii.

Table IV-10C					
Comparison Adjusting for Contract Hours					
	Comparison 11	Comparison 12	Comparison 13	Comparison 14	Comparison 15
Class	Class V	Class VII	Class VII	Class VII	Class VII
Years of Experience	13	14	22	24	27
Hawaii	\$56,850	\$62,672	\$66,489	\$68,482	\$72,653
Comparison Average	\$53,609	\$54,980	\$63,194	\$65,854	\$67,677
Minimum	\$40,220	\$40,220	\$46,386	\$46,386	\$46,386
Maximum	\$83,098	\$87,742	\$98,755	\$100,977	\$100,977
Number Below Hawaii	8	8	7	7	9
Number Above Hawaii	4	4	5	5	3

Tables IV-11A-11C show salary comparisons, adjusting for paid days. Hawaii has a greater number of paid days than the average comparison district. Thus, Hawaii's salaries become less competitive when adjusted for paid days, since total salary has to be spread out over more days. Hawaii still remains above the comparison average for most early career comparison points. However, it is below the comparison average for Comparison Points 9 through 15, except for Comparison Point 12.

Table IV-11A					
Comparison Adjusting for Paid Days					
	Comparison 1	Comparison 2	Comparison 3	Comparison 4	Comparison 5
Class	Class II	Class II	Class II	Class III (BA)	Class III (BA)
Years of Experience	3	5	9	3	5
Hawaii	\$44,538	\$45,874	\$47,250	\$48,100	\$49,544
Comparison Average	\$43,414	\$44,913	\$48,448	\$44,230	\$45,787
Minimum	\$33,153	\$35,353	\$36,670	\$33,153	\$35,353
Maximum	\$52,936	\$56,624	\$65,860	\$52,936	\$56,624
Number Below Hawaii	7	7	7	8	9
Number Above Hawaii	5	5	5	4	3

Table IV-11B					
Comparison Adjusting for Paid Days					
	Comparison 6	Comparison 7	Comparison 8	Comparison 9	Comparison 10
Class	Class III (BA)	Class III MA	Class III MA	Class III MA	Class IV
Years of Experience	11	3	5	11	13
Hawaii	\$52,561	\$48,100	\$49,544	\$52,561	\$54,663
Comparison Average	\$51,642	\$46,769	\$48,434	\$54,973	\$57,529
Minimum	\$40,186	\$36,469	\$39,058	\$44,205	\$44,205
Maximum	\$69,375	\$59,364	\$64,023	\$80,312	\$86,614
Number Below Hawaii	8	8	7	7	7
Number Above Hawaii	4	4	5	5	5

Table IV-11C					
Comparison Adjusting for Paid Days					
	Comparison 11	Comparison 12	Comparison 13	Comparison 14	Comparison 15
Class	Class V	Class VII	Class VII	Class VII	Class VII
Years of Experience	13	14	22	24	27
Hawaii	\$56,850	\$62,672	\$66,489	\$68,482	\$72,653
Comparison Average	\$59,304	\$60,828	\$69,860	\$72,786	\$74,807
Minimum	\$44,205	\$44,205	\$51,388	\$51,388	\$53,666
Maximum	\$90,302	\$95,348	\$107,316	\$109,730	\$109,730
Number Below Hawaii	8	8	6	5	5
Number Above Hawaii	4	4	6	7	7

In all comparisons, with and without adjustments, Hawaii has a shorter contract length and fewer contracted work hours than comparison districts. Thus, when the comparisons are adjusted for these factors, Hawaii's salaries tend to look more competitive as compensation is spread across fewer days or hours than in comparison districts. Hawaii has more paid days than the comparison district average. Comparison districts salaries are spread over fewer days, which makes Hawaii look more competitive. Generally, Hawaii's salaries for people early in their careers are higher than early career salaries for comparison groups. Later in teachers' careers (i.e. at higher points in the salary schedules), the salary differences between Hawaii and comparison districts follow less of a pattern: Hawaii is either above or below comparison salaries, depending on the adjustments made.

Geographic Cost Differences

In addition to adjusting for workload, it is also important to examine geographic cost differences in each comparison district. APA is using two different metrics to examine the costs faced locally. The first is Lori Taylor's Comparable Wage Index (CWI) that was first developed for the National Center on Education Statistics and has since been updated by Taylor up to 2013.¹³ The CWI is not a cost of living index measuring the differences in prices of purchasing a set of goods in different locales. It, instead, measures the level of wages of similar professions in each district across the state. "The basic premise of a CWI is that all types of workers demand higher wages in areas with a higher cost of living (e.g., San Diego) or a lack of amenities (e.g., Detroit, which has a particularly high crime rate) (Federal Bureau of Investigation 2003)."¹⁴ The methodology is similar to that described in APA's comparable wage analysis discussed earlier in the report.

The second measure used to examine geographic cost difference is a more familiar measure of cost of living, the differences in the costs of goods and services in different locales. APA selected the 2010 Census Bureau Cost of Living – Selected Urban Areas (COL) for 2010 to examine the differences in the costs of goods and services between the comparison districts. This cost of living index measures the costs of grocery items, housing, utilities, transportation, health care, and other goods and services. APA used the composite figures provided for the index. Unlike the CWI that is created for each district, the COL is generated for 325 urban areas. Most comparison districts had a corresponding urban area listed in the COL; for those that did not, APA selected an urban area in close proximity to the school district.

Table IV-12 shows the CWI and COL figures for Hawaii and each comparison district. The two metrics are shown in the same format. The higher the number, the higher the geographic cost. Interestingly, the CWI for Hawaii is low compared to comparison districts. Only two of the districts have CWI figures lower than Hawaii. Again, CWI does not measure the cost of living differences, but the cost of hiring similarly educated professional staff in each district. The COL figure is higher in Hawaii than in any of the comparison districts—much higher in many cases. Tables IV-13A-13C show the comparisons when CWI is taken into account, and Tables IV-14A-14C show the comparisons when COL is factored in.

¹³ http://bush.tamu.edu/research/faculty/Taylor_CWI/

¹⁴ Taylor, Lori and Fowler Jr., William "A Comparable Wage Approach to Geographic Cost Adjustment," for the U.S. Department of Education. May 2006

Table IV-12		
Geographic Cost Comparison Adjustments		
	CWI	COL
Hawaii	1.453	1.657
Broward	1.464	1.157
Clark	1.590	1.019
Cumberland	1.422	0.952
Fairfax	1.912	1.401
Killeen	1.459	0.874
Houston	1.733	0.922
Miami Dade	1.428	1.060
Montgomery County	1.795	1.401
Palm Beach	1.497	1.060
San Diego	1.602	1.323
Virginia Beach	1.517	1.117
Wake County	1.515	0.982

Since Hawaii has a lower geographic cost when measured using the CWI, its average salaries look more competitive once the CWI is applied to all districts as shown in Table IV-13A-13C. In fact, Hawaii's salary is higher than the comparison district average for all 15 of the comparison points. For the lowest levels of education and experience, Hawaii has a higher salary than almost all other districts. For higher levels of education and experience, Hawaii's salary is still higher than the average, but many of the comparison districts have higher salaries even after the CWI adjustment.

Table IV-13A					
Comparison Adjusting for CWI					
	Comparison 1	Comparison 2	Comparison 3	Comparison 4	Comparison 5
Class	Class II	Class II	Class II	Class III (BA)	Class III (BA)
Years of Experience	3	5	9	3	5
Hawaii	\$44,538	\$45,874	\$47,250	\$48,100	\$49,544
Comparison Average	\$39,104	\$40,424	\$43,484	\$39,783	\$41,153
Minimum	\$33,712	\$33,749	\$37,287	\$33,712	\$33,749
Maximum	\$44,404	\$46,070	\$53,498	\$45,108	\$48,407
Number Below Hawaii	12	11	10	12	12
Number Above Hawaii	0	1	2	0	0

Table IV-13B					
Comparison Adjusting for CWI					
	Comparison 6	Comparison 7	Comparison 8	Comparison 9	Comparison 10
Class	Class III (BA)	Class III MA	Class III MA	Class III MA	Class IV
Years of Experience	11	3	5	11	13
Hawaii	\$52,561	\$48,100	\$49,544	\$52,561	\$54,663
Comparison Average	\$46,310	\$42,067	\$43,527	\$49,226	\$51,450
Minimum	\$40,841	\$37,083	\$37,286	\$43,152	\$44,309
Maximum	\$60,007	\$45,574	\$48,929	\$61,378	\$66,194
Number Below Hawaii	11	12	12	10	10
Number Above Hawaii	1	0	0	2	2

Table IV-13C					
Comparison Adjusting for CWI					
	Comparison 11	Comparison 12	Comparison 13	Comparison 14	Comparison 15
Class	Class V	Class VII	Class VII	Class VII	Class VII
Years of Experience	13	14	22	24	27
Hawaii	\$56,850	\$62,672	\$66,489	\$68,482	\$72,653
Comparison Average	\$52,942	\$54,229	\$62,336	\$65,049	\$66,949
Minimum	\$44,309	\$44,701	\$50,380	\$51,823	\$51,945
Maximum	\$69,194	\$73,924	\$82,016	\$83,861	\$83,861
Number Below Hawaii	9	10	8	6	6
Number Above Hawaii	3	2	4	6	6

Tables IV-14A-14C below show an entirely different picture after COL adjustments are applied. Since all comparison districts have lower COLs, and most have much lower COLs, Hawaii's relative salaries become far less competitive. Hawaii's salaries are lower for all 15 of the comparison points, ranging from around \$17,000 to \$37,000 lower. No district has a lower salary in any of the comparison points after adjusting for COL.

Table IV-14A					
Comparison Adjusting for COL					
	Comparison 1	Comparison 2	Comparison 3	Comparison 4	Comparison 5
Class	Class II	Class II	Class II	Class III (BA)	Class III (BA)
Years of Experience	3	5	9	3	5
Hawaii	\$44,538	\$45,874	\$47,250	\$48,100	\$49,544
Comparison Average	\$64,475	\$66,587	\$71,422	\$65,562	\$67,763
Minimum	\$57,456	\$59,156	\$62,585	\$57,456	\$59,397
Maximum	\$84,585	\$85,913	\$90,597	\$84,585	\$85,913
Number Below Hawaii	0	0	0	0	0
Number Above Hawaii	12	12	12	12	12

Table IV-14B					
Comparison Adjusting for COL					
	Comparison 6	Comparison 7	Comparison 8	Comparison 9	Comparison 10
Class	Class III (BA)	Class III MA	Class III MA	Class III MA	Class IV
Years of Experience	11	3	5	11	13
Hawaii	\$52,561	\$48,100	\$49,544	\$52,561	\$54,663
Comparison Average	\$76,035	\$69,262	\$71,602	\$80,693	\$84,190
Minimum	\$63,015	\$61,545	\$61,760	\$68,242	\$70,533
Maximum	\$90,597	\$86,814	\$88,141	\$92,522	\$96,778
Number Below Hawaii	0	0	0	0	0
Number Above Hawaii	12	12	12	12	12

Table IV-14C					
Comparison Adjusting for COL					
	Comparison 11	Comparison 12	Comparison 13	Comparison 14	Comparison 15
Class	Class V	Class VII	Class VII	Class VII	Class VII
Years of Experience	13	14	22	24	27
Hawaii	\$56,850	\$62,672	\$66,489	\$68,482	\$72,653
Comparison Average	\$86,598	\$88,577	\$101,542	\$105,737	\$108,906
Minimum	\$70,533	\$70,533	\$82,564	\$87,711	\$92,062
Maximum	\$107,584	\$110,288	\$119,910	\$122,607	\$122,607
Number Below Hawaii	0	0	0	0	0
Number Above Hawaii	12	12	12	12	12

Though the CWI and COL adjustments provide dramatically different results when applied, the measures are not necessarily incongruous with one another. The CWI figures suggest it is not costly to attract teachers to Hawaii, as people are probably easily attracted to the island locale and quality of life. Once in Hawaii, however, teachers experience a very high cost of living that can stretch what might be lower than expected salaries, considering the high cost of living.

Combining Workload and Geographic Cost Differences

Overall, the comparisons show that when salaries are adjusted for workload in Hawaii—as measured by the contract, not including work outside of contract hours—then Hawaii salaries are generally lower than those of comparison districts. Geographic cost adjustments provide two different perspectives on salaries in Hawaii. They suggest that it may be somewhat less costly to attract similarly educated personnel in Hawaii than might be expected given the lower salary levels. However, the costs of living that those personnel face in Hawaii are extremely high, and may make salaries less competitive. Tables IV-15A-15C combine workload and geographic cost differences. The figures represent a comparison adjusting for total contract hours and COL. The comparison tries to take into account the fact that, while the workload is somewhat lower in the Hawaii teacher contract, there is still a high COL.

Table IV-15A					
Comparison Adjusting for Contract Hours and COL					
	Comparison 1	Comparison 2	Comparison 3	Comparison 4	Comparison 5
Class	Class II	Class II	Class II	Class III (BA)	Class III (BA)
Years of Experience	3	5	9	3	5
Hawaii	\$44,538	\$45,874	\$47,250	\$48,100	\$49,544
Comparison Average	\$59,489	\$61,462	\$65,888	\$60,525	\$62,588
Minimum	\$50,901	\$50,901	\$56,625	\$50,901	\$50,901
Maximum	\$77,222	\$77,994	\$83,142	\$77,222	\$77,994
Number Below Hawaii	0	0	0	0	0
Number Above Hawaii	12	12	12	12	12

Table IV-15B					
Comparison Adjusting for Contract Hours and COL					
	Comparison 6	Comparison 7	Comparison 8	Comparison 9	Comparison 10
Class	Class III (BA)	Class III MA	Class III MA	Class III MA	Class IV
Years of Experience	11	3	5	11	13
Hawaii	\$52,561	\$48,100	\$49,544	\$52,561	\$54,663
Comparison Average	\$70,204	\$63,954	\$66,150	\$74,548	\$77,791
Minimum	\$57,013	\$55,836	\$56,031	\$61,743	\$63,816
Maximum	\$85,304	\$78,989	\$79,761	\$88,360	\$94,297
Number Below Hawaii	0	0	0	0	0
Number Above Hawaii	12	12	12	12	12

Table IV-15C					
Comparison Adjusting for Contract Hours and COL					
	Comparison 11	Comparison 12	Comparison 13	Comparison 14	Comparison 15
Class	Class V	Class VII	Class VII	Class VII	Class VII
Years of Experience	13	14	22	24	27
Hawaii	\$56,850	\$62,672	\$66,489	\$68,482	\$72,653
Comparison Average	\$80,130	\$81,973	\$94,001	\$97,872	\$100,745
Minimum	\$63,816	\$63,816	\$74,700	\$79,574	\$83,521
Maximum	\$108,006	\$110,721	\$116,835	\$119,464	\$119,464
Number Below Hawaii	0	0	0	0	0
Number Above Hawaii	12	12	12	12	12

Tables IV-15A-15C show that the lower workload does not fully counter the much higher cost of living. Hawaii's salary is lower than the comparison districts on all 15 of the comparison points, and it is lower than all 12 of the comparison districts on each comparison point when contract hours and COL are taken into account. This does not mean that salaries need to be adjusted completely for differences in cost of living. The comparable wage study and the CWI point out that Hawaii is able to attract professionals across industries at lower salaries than might be expected. At the same time, the Hawaii salaries are lower than in all other districts in all comparison points. Tables 15A-15C point out that lower workload does not necessarily negate the effects of higher cost of living.

Conclusion

Hawaii's teacher compensation system is based on a traditional teacher salary schedule that rewards education and experience. Hawaii's schedule tends to place more value on education credits than comparison districts, which tend to focus only on degree attainment with little to no additional compensation for credit attainment. Comparison districts also generally have more experience steps than Hawaii. Some of the comparison districts have steps very closely aligned to years of experience. Most districts kept newer staff on low steps for the first several years, but then steps were often awarded at a pace close alignment with years served.

Hawaii's salaries are competitive with those of comparison districts when examined without any adjustments for workload or geographic cost differences. Hawaii generally offers higher salaries earlier in a teachers' careers, but becomes less competitive, with somewhat lower salaries, later in teachers' careers. When workload is adjusted for contract days and contract hours, Hawaii becomes more competitive due to its lower number of work days and work hours. In fact, when contract hours are accounted for (multiplying work days by work hours), Hawaii's salaries are higher than comparison district averages for all 15 comparison points. Hawaii's salaries become less competitive when accounting for paid days, since Hawaii has more paid days than the comparison districts.

Adjusting for geographic cost differences tells two very different stories. Adjusting for CWI, a measure of comparable wages, Hawaii's salaries are more competitive since Hawaii's CWI figures are lower than those of comparison districts. On the other hand, Hawaii's cost of living is dramatically higher than comparison districts. After adjusting for cost of living, Hawaii's salaries are lower than salaries for all 12 comparison districts in all 15 comparison points. The two figures show that, while it may be easier than expected to attract personnel to Hawaii, once teachers are in Hawaii they face a very high cost of living.

V. COMPARISON OF BENEFITS, STIPENDS, AND RETIREMENT

This section of the report examines the stipends and benefits offered in comparison districts, and compares them to Hawaii's stipends and benefits. APA collected data for this section by examining documents from district websites and making phone calls to districts. This section, unlike the section above it, does not make direct comparisons between Hawaii and all twelve comparison districts. Direct comparisons are avoided here for two main reasons: First, the amount of data APA was able to collect from each district varied. Some districts have robust information posted online regarding benefits, stipends, and retirement. Other districts have limited data, were unable or unwilling to provide full details, even when contacted via phone. Second, the manner in which districts implement or provide benefits, stipends, and retirement varies widely, making direct comparisons difficult in some cases.

Benefits

APA examined the health, dental, vision, and life insurance provided by comparison districts. APA also examined the numbers of sick and personal days provided to teaching staff.

Health Insurance

The comparison districts provide support for health insurance in one of two ways: direct coverage of all or some portion of health insurance costs for the employee, or a lump sum cafeteria plan where the employee chooses how to allocate the funds. Only one of the comparison districts uses a cafeteria plan. That one district provides \$400 per month to employees who use a district-offered health insurance program. The money is used to cover any costs the employee or his or dependents may incur.

All other districts provide direct support to employees to cover all or some portion of healthcare. The range of coverage is wide. Coverage differs in terms of whose costs are covered (e.g. employees only versus employees and dependents), and in terms of the amount of funding provided. Within comparison districts, some pay only for employees while others contribute to covering both the employees and dependents. Two of the comparison districts only fund coverage for employees. In these districts, dependents are eligible for coverage, but the district does not pay any of the cost for these dependents. For the two districts that only pay for employees, one district covers 90 percent of the costs to the employee, and the other district covers 100 percent.

One district provides a fixed amount based on factors like an employee's marital status, number of dependents, or family makeup. The amount varies from \$500 to \$1000 based on the employee's situation. Another district similarly provides funding based on family status, but also funds differently based on which health plan an employee chooses. For employees who choose lower-cost plans, the district also provides a certain amount of money for a health savings account. The most robust coverage is 100 percent coverage for the cost of health insurance, available for employees and all eligible dependents, regardless of plan. The district that provided this full coverage was one of two districts that also had health insurance provided by a trust outside of the school district.

Beginning in 2014-15 and running through the 2016-17 school year, Hawaii's health insurance costs will be covered at 60 percent of the rates established by the Hawaii Employer-Union Health Benefits Trust Fund (Trust Fund). Employees receive contributions based on their numbers of dependents—no dependents, one dependent, or two or more dependents. Hawaii is similar to most comparison districts in that it differentiates levels of coverage based on an employee's number of dependents. It is hard to directly compare how Hawaii's 60 percent coverage compares to coverage in other districts, since comparison districts only publish dollar amounts covered, not percent of total cost. Thus, the only conclusion that can clearly be drawn is that Hawaii's coverage is below that of the district that covers 100 percent of employee and dependent healthcare costs.

Dental and Vision

All comparison districts seem to offer some form of dental or vision coverage. It appears that districts will cover all or most of employees' dental coverage more frequently than districts will cover vision insurance. Only a few districts mentioned covering vision insurance. Hawaii provides 60 percent coverage for both dental and vision insurance.

Sick Leave and Personal Days

The comparison districts have relatively similar sick leave policies. One implementation difference is the manner in which days accumulate. Most of the comparison districts allow employees to accumulate one sick day per month. A few of the districts provided teachers with a small pool of sick days at the start of employment, around three days, and then additional accumulation. Only one district provided noticeably fewer days per year, at just five days. Most district policies allow teachers to earn between 10 and 15 days per year. All districts examined allow teachers to accumulate days across years, and the majority of them do not cap the accumulation amount.

Personal days varied more across comparison districts. Many of the districts policies allow personal leave, but personal leave days are taken out of a teacher's pool of sick leave days. Districts with this policy had between five and eight sick leave or personal leave days per year. A few districts had two to five specifically designated personal days. These days did not accumulate across years.

Hawaii teachers get 18 sick days per year and take up to six personal days that are deducted from sick days.

Supplemental Pay

The comparison districts have a wide range of supplemental pay structures. Generally, these included school-based supplements, such as supplemental pay for department heads; and activity-based supplements, such as drama or athletic coach stipends. APA collected documents from the comparison districts listing the supplemental pay for different roles and positions. It is important to note that APA does not have any information on time commitments or other requirements for supplementary positions, so it is impossible to know how similar supplementary workloads are across districts.

The majority of districts provide dollar amount stipends for all supplemental pay that was examined. Only one district provides stipends as a percentage of salary, linking the percentage to base salary for the district. Most of the districts do not differentiate by teaching experience, instead offering stipends at a fixed dollar amount. Two of the comparison districts do differentiate by experience, providing higher stipends to more experienced teachers.

The comparisons below are broken up into two groups: non-athletic coach stipends and athletic coach stipends. For the comparison, APA examined the raw dollar figures and the dollars as a percentage of base salary for the district. For the two districts that differentiated stipends based on experience, APA picked a mid-point stipend for comparison purposes.

Non-Athletic Coach Stipends

APA compared all non-athletic coach stipends listed in Appendix XIV except librarians. The list below shows each stipend type and dollar amount for Hawaii teachers, according to Appendix XIV:

- Assistant athletic director - \$1,390
- Director of performing high school bands or orchestras - \$3,750
- Director of performing intermediate or middle school bands or orchestras - \$1,875
- Department and grade level chairperson of large school - \$1,295
- Department and grade level chairperson of small school - \$1,045
- Drama Coaches - \$1,000
- Director of performing chorus or choral group - \$1,000
- Vocational agricultural teacher with large farms - \$1,250
- Vocational agricultural teacher with small farms - \$1,000

For each stipend APA was able to find at least five comparable figures except for agricultural teachers and small school department and grade level chairperson. The tables below show the comparison information for the remaining stipends. Table V-1 shows the raw dollar amounts, Table V-2 shows the amounts as a percentage of base salary.

Table V-1						
Comparison of Non-Athletic Coach Stipends						
	Assistant Athletic Director	Director of Band or Orchestras	Director of Performing Arts Middle School	Department Chair - Large School	Drama Coach	Director of Chorus
Hawaii	\$1,390	\$3,750	\$1,875	\$1,295	\$1,000	\$1,000
Comparison Average	\$3,095	\$4,124	\$2,048	\$1,759	\$2,446	\$2,632
Minimum	\$2,100	\$2,380	\$1,185	\$1,000	\$788	\$989
Maximum	\$7,040	\$8,180	\$4,090	\$2,596	\$4,718	\$5,260

Table V-1 shows that Hawaii's non-athletic coach stipends are lower than comparison district averages for all six comparison stipends. Hawaii's stipends for assistant athletic directors, drama coaches, and directors of chorus are all much lower than the comparison averages. The other three other comparison figures are lower, but only by a few hundred dollars. For assistant athletic directors, Hawaii's stipend is lower than the minimum in any of the comparison districts. It is important to note again that APA does not have information on the workload or requirements of each position in the comparison districts; the tables simply compare the values paid to teachers without any comparison of what teachers must do to earn the stipend.

Table V-2						
Comparison of Non-Athletic Coach Stipends as a Percentage of District's Base Salary						
	Assistant Athletic Director	Director of Band or Orchestras	Director of Performing Arts Middle School	Department Chair - Large School	Drama Coach	Director of Chorus
Hawaii	3.1%	8.4%	4.2%	2.9%	2.2%	2.2%
Comparison Average	7.1%	9.8%	4.7%	4.3%	5.6%	6.1%
Minimum	4.5%	5.1%	2.6%	2.3%	2.0%	2.4%
Maximum	15.1%	17.5%	8.7%	6.4%	10.2%	11.2%

Table V-2 converts each stipend to a percentage of each district's base salary. This provides some context on the level of additional pay each district offers for each stipend, compared to that district's salary level. The comparative results are similar to those in Table V-1, with Hawaii's stipends lower than stipends in comparison districts. Again, Hawaii's stipends for assistant athletic directors, drama coaches, and directors of chorus are far lower than comparison district averages, with the other stipends much closer. Hawaii's assistant athletic director and director of chorus stipends are below the minimum stipend percentage for the comparison districts.

Athletic Coach Stipends

As with the non-athletic coach stipends, APA does not have information on the workload or responsibilities associated with coaching jobs in each district. The comparisons are simply dollar to dollar comparisons of similarly titled coaching positions. All of the districts, including Hawaii, have many different coaching stipends; APA picked five coaching positions for this comparison. They are all high school positions and include head football coach, assistant football coach, head basketball coach, head track coach, and head volleyball coach. Table V-3 shows the Hawaii stipend amounts and the average, minimum, and maximum stipend amounts for the comparison districts.

Table V-3					
Comparison of Athletic Coach Stipends					
	HS Head Football	HS Assistant Football	HS Head Basketball	HS Head Track	HS Head Volleyball
Hawaii	\$3,450	\$2,069	\$2,644	\$2,874	\$2,644
Comparison Average	\$4,850	\$3,820	\$4,302	\$3,260	\$3,453
Minimum	\$3,038	\$1,735	\$2,604	\$1,400	\$2,099
Maximum	\$7,040	\$6,600	\$9,245	\$5,730	\$6,200

Like its non-athletic coach stipends, Hawaii's athletic coach stipends are below the averages of the comparison districts. All the stipends, other than the head track coach stipend, are far below comparison averages, though Hawaii's stipend is higher than at least one comparison district in all cases. Table V-4 shows the stipends as a percentage of base salary for each district. Again, Hawaii's percentages are below the average in all cases, and far behind in many instances. The head basketball coach stipend as a percentage of base salary is below all comparison district figures.

Table V-4					
Comparison of Athletic Coach Stipends Relative to Base Salary					
	HS Head Football	HS Assistant Football	HS Head Basketball	HS Head Track	HS Head Volleyball
Hawaii	7.7%	4.6%	5.9%	6.5%	5.9%
Comparison Average	11.7%	9.0%	10.2%	7.8%	8.1%
Minimum	7.6%	4.3%	6.5%	3.2%	5.7%
Maximum	15.5%	14.1%	19.8%	12.2%	13.2%

Retirement

Hawaii's teachers are currently enrolled in one of four retirement plans.¹⁵ Teachers hired before June 30, 1984 are in the Contributory Plan, which requires a 7.8 percent contribution. Teachers hired after June 30, 1984 but before June 30, 2006 are in the Non-Contributory Plan, which has no contribution requirement. Teachers hired after June 30, 2006 but before July 1, 2012 are in the Hybrid Plan, which requires a 6 percent contribution. Finally, employees hired on or after July 1, 2012 are in a modified Hybrid Plan, which requires an 8 percent contribution. The retirement age rules and calculation of

¹⁵ www.hawaiipublicschools.org

benefits differ for each plan. Because of this variation in plans, APA does not compare data from comparison districts to Hawaii in the tables below.

Like Hawaii, teacher retirement plans in comparison districts are state-based programs, and are not specific to individual districts. APA used a combination of state retirement websites, district websites, and other websites to find data for all 12 districts. APA collected information on employee contribution, requirements to reach full retirement, types of salary used to compute benefits, and methods of calculating final benefits. The data is all for a single point in time, and it is clear that changes are occurring to some, if not many, of the retirement systems. For example, Texas districts show a contribution rate of 6.4 percent, which will increase over the coming years to a high of 7.7 percent in 2017. The 6.4 percent rate is used for comparison purposes. Table V-5 shows the average, minimum, and maximum contribution rates for comparison districts.

Table V-5	
Comparison District Teacher Contribution Rates	
Average	5.9%
Minimum	3.0%
Maximum	11.9%

Teacher contributions range greatly but are concentrated around the average of about 6 percent. The average contribution rate is below the current new hire rate for Hawaii and the rate for the Contributory Plan. It is nearly the same as the rate for Hybrid Plan.

Rules for when teachers qualify for retirement benefits vary by district, with most plans employing multiple rules. One type of rule designates a required minimum number of years of service. The requirement ranged from 30 to 33 years of service for comparison districts. Some districts combined the service years rule with a minimum age requirement. For example, a district might set the 30-year service requirement but mandate that an employee must also have reached the age of 55 before retiring. A variation of this rule for older employees allows them to retire at a higher minimum age, but with far less service credit. For example, a number of the comparison districts had the used the “65/5 Rule,” which allows employees who are 65 or older to retire after a minimum of five years of service. Another approach is the “rule” of a total number of years. This approach adds the employee’s age to his or her service credits to determine a total number of years. This total is then compared to a district-determined minimum requirement of years for retirement. Comparison districts using the rule of total number of years had both an 80-year and a 90-year requirement for qualification. Hawaii’s various plans have different rules for qualifying for retirement. The plans use variations of the rules described above, including a minimum service amount of 25 years for the Contributory Plan, or 30 years of service credits plus a minimum age of 60 for the modified Hybrid Plan.

To calculate the final benefits an employee receives, retirement plans use a calculation that generally incorporates years of service, retirement salary level, and an applied factor. The majority of comparison

districts use an average salary figure as the retirement level salary. The factor applied also differed for each district. To compare the differences in retirement benefit calculations, APA calculated an expected monthly retirement benefit for a hypothetical retiree. This calculation assumes the retiree reached full retirement, had a salary of \$65,000 in the final year, and an average final salary of \$62,000 over the last years of teaching. The teacher has taught for 30 years. Table V-6 shows the average, minimum, and maximum amounts for the comparison districts based on this hypothetical. It is important to note that this analysis does not take into account final salary levels, which may influence the factors used in calculation. Higher salary districts, like Montgomery County and Virginia Beach, might be able to provide lower factors since calculations would be based on higher final salaries. This would allow recipients to have higher monthly benefits even at lower factors.

Table V-6	
Comparison Districts Hypothetical Monthly Benefit Amounts	
Average	\$3,046
Minimum	\$2,325
Maximum	\$3,875

Using the same hypothetical, Hawaii's monthly benefits would range from \$1,938 to \$3,100. The Contributory Plan and Hybrid Plan provide the highest benefits, slightly above the comparison average. The Non-Contributory Plan provides the lowest benefits, well below the comparison average, and the Modified Plan would provide \$2,713, also below the average.

Conclusion

Hawaii provides a robust package of insurance coverage to its teachers, covering 60 percent of the costs of health, dental, and vision insurance. All of the comparison districts provide access to similar coverage, but some do not make contributions to help pay for the costs of dental or vision insurance. Comparison districts vary on coverage of health insurance costs for dependents. Some districts only contribute to insurance costs for employees, while others cover dependents as well. Comparison districts also vary in how much they will cover of health insurance costs. Comparison districts only providing funding for employees tend to pick up the whole cost, or most of the cost, of insurance. Districts covering the costs of dependents tend to provide just a percentage of the cost, though one district does cover the full cost of the employee and any dependents.

Hawaii provides sick days at a similar or slightly higher rate than comparison districts. Like many of the comparison districts, Hawaii allows teachers to use personal days, which are deducted from available sick days. Hawaii's personal days allotment is higher than in comparison districts. Generally, the comparison districts allow unused sick days to be carried over without limit.

Comparison districts, on average, pay higher stipends for both non-athletic coach stipends and athletic stipends. This is true when looking at the raw value of stipends or looking at the stipends as a

percentage of base salary. For many of the stipends used for comparison, Hawaii pays far below the average amount of the comparison districts.

Comparing retirement benefits is more difficult, since Hawaii's current teachers have a number of different retirement plans depending on the date when they started teaching. Overall, teachers in Hawaii who are providing a contribution to their retirement plans pay a higher contribution rate than the comparison district average. The amount of benefits a teacher receives in retirement is highly dependent on that teacher's level of education, experience, and age at retirement. Examining a hypothetical retiring teacher, two of Hawaii's plans seem to be competitive with the comparison districts while two others do not seem to be as competitive.

VI. RECRUITMENT AND RETENTION AND RECOMMENDATIONS

The work above looked at various aspects of Hawaii's compensation system. This final chapter examines what these aspects might mean for the recruitment and retention of teachers. This chapter also provides recommendations on adjustments that might be made to Hawaii's compensation system.

Recruitment

As mentioned in Chapter Two, Hawaii's flow of teachers is similar to that of many school districts. Most of Hawaii's new teachers are younger, with lower levels of education. The comparable wage study in Chapter Three shows that Hawaii is able to attract professional talent at rates below what might be expected due to its high cost of living. The salary comparisons in Chapter Four show that unadjusted salaries, as well as salaries adjusted for workload or CWI, are very competitive at the early levels of teaching. This might help attract new teachers to the system. New employees receive a robust benefit package, but may not care as much about coverage of dependents as they care about coverage of employees alone. If new teachers work in hard-to-staff schools, they do have a hard-to-staff stipend available to them. This stipend is shown to help with teacher retention.

Retention

Hawaii's flow of teachers out of the system is comparable to many school districts. Figure II-2 shows the U-shaped distribution of teachers leaving of the system. Hawaii teachers tend to either leave a few years into teaching or stay late into their careers; in fact, many teachers seem to retire later in their careers in Hawaii than in other districts APA examined. Chapter Four showed that salaries become somewhat less competitive as experience and education increase. Teacher contracts in Hawaii have fewer contract days and total hours than most of the comparison districts, but more paid days.

Based on the analysis, younger teachers remain in the first three steps of the salary schedule for a large portion of their careers. Teachers later in their careers seem to progress faster through the steps, as shown in Chapter Two, but this progression is still not a clear year-to-year adjustment based on experience.

Hawaii teachers receive lower stipends for additional service in both non-athletic coach and athletic coach positions than in comparison districts. They receive a robust benefits package including health, dental, and vision benefits, but they pay a higher amount to retirement than comparison districts. Teachers also have the ability to gain additional pay by moving across classes on the salary schedule. Unlike in many districts, progression can often be based solely on credit attainment and not on degree attainment.

The regression in Chapter Two shows the hard-to-staff component of the compensation system may already be contributing to teacher retention. However, factors associated with working conditions (e.g. higher proportions of free and reduced lunch students) are only weakly associated with attrition.

Recommendations

APA offers the following list of recommendations based on the analysis in Chapters Two through Five. These recommendations are based on the assumption that the general structure of the system will stay the same. Though other adjustments might be made to the system, the actions listed below are APA's recommendations based on the work done in this study.

- **Lower the number of classes in the salary schedule.** Currently, the system is paying for credit attainment alone in Classes IV, V, and VI. Many of the comparison districts only pay for degree attainment. Hawaii needs to examine the value of credits versus degree attainment on the effectiveness of teachers, and then determine if paying for additional credits is valuable to the system.
- **Raise the number of steps in the salary schedule.** Most of the comparison districts required new teachers to stay on one step early in their careers, or did not change salary for the first few steps of the salary schedule. After these early years of slow or no growth through steps, comparison district teachers tend to earn steps in conjunction with increases in years of service. Hawaii's system has relatively few steps, and young teachers spend long periods of time in the early steps. Looking at Table II-4, teachers may take up to 15 years to get through the first four steps, but then they can move through eight steps in their next 15 to 20 years of teaching. Recognizing teacher experience more directly, and earlier in their careers, may help retain teachers.
- **Raise stipend levels for non-athletic coach and athletic coach stipends.** Comparison districts had higher average stipends across the board. APA does not know if the current stipends are impeding schools' abilities to fill these roles, but it is clear that the compensation does not align with stipend compensation in other districts.
- **Examine expanding the use of targeted stipends.** The hard-to-staff stipend is proving to be effective in retaining employees. Hawaii should examine the use of additional targeted stipends in need areas. One possibility to examine is the use of stipends to retain younger teachers around the time they would leave teaching or leave Hawaii. This could be important if steps for newer teachers are not expanded.

APA is not making a specific recommendation on adjusting salary levels. It is clear from the comparable wage study and CWI salary comparison that Hawaii is a desirable place to work. Raw salaries, workload-adjusted salaries, and CWI-adjusted salaries all show Hawaii's salaries are competitive in relation to comparison districts. At the same time, Hawaii teachers face a very high cost of living. It is unclear whether cost of living differences should/could be fully taken into account. With this in mind, it is important for Hawaii to ensure that teachers receive attractive benefits. Such benefits could include the current shorter work year and work hours, a robust benefits package, and a good retirement system.

Appendix A: Regression Results, Correlation with Leaving

This appendix provides a more complete representation of the regression analysis discussed in section II. It has 2 tables . Table A-1 are the complete results of the regression.

Table A-1				
Regression Results Predicting Whether a Teacher Will Leave				
Number of obs	49440			
LR chi2(18)	4108.18			
Prob > chi2	0			
Pseudo R2	0.1866			
Log likelihood	8953.13			
Predictors	Odds Ratio	Std. Err.	z	P
Total years of Service Credit	0.99	0.00	-5.33	0
Indicates has 3 or fewer years of service credit	9.97	0.06	39.38	0
Year is 2010	8.45	0.06	37.41	0
Year is 2011	2.78	0.07	14.36	0
Year is 2012	2.62	0.07	12.92	0
Age is 62 or higher	2.30	0.08	10.85	0
Works in the charter district	2.70	0.15	6.48	0
Works in the Central district	1.08	0.09	0.89	0.372
Works in the Hawaii district	0.96	0.09	-0.43	0.665
Works in the Honolulu district	1.00	0.09	0.05	0.957
Works in the Kauai district	0.85	0.13	-1.3	0.193
Works in the Leeward district	1.07	0.08	0.85	0.394
Works in the Maui district	1.05	0.09	0.55	0.581
Percent proficient in reading	0.80	0.31	-0.7	0.481
Percent proficient in math	0.65	0.21	-2.06	0.039
Percent of students who qualified for free and reduced lunch	1.00	0.00	1.67	0.095
Percent of students enrolled for entire school year	1.00	0.00	0.46	0.646
Received a \$1,500 Hard to staff bonus	0.32	0.15	-7.71	0
Constant	0.02	0.41	-10.03	0

APA used different model formulations with various combinations of the school descriptors: Percent proficient in reading, Percent proficient in math, Percent of students who qualified for free and reduced lunch, Percent of students enrolled for entire school year (a measure of transience). Percent proficient

in math and reading was consistently negatively associated (i.e. less than 1) with attrition. The other descriptors around transience were consistently not significant. Free and reduced lunch was significant in a few formulations, but usually not in the expected direction, i.e. it was positively associated with attrition.

The reference for the location data is a combination of Offices that had small numbers of teachers:

- District-BOE
- District-Office of Superintendent
- District-OSFSS
- District-OHR
- District-OCISS
- District-OITS
- District-OFS

Table A-2 provides summary information on the data used for the regression. This data can be used to interpret the results.

Table A-2					
Summary Information on Variables Used in the Regression					
Variable	Obs	Mean	Std. Dev.	Min	Max
Quit	55,135	0.073	0.26	0	1
Total years of Service Credit	51,572	15.787	9.57	0	53
Indicates has 3 or fewer years of service credit	55,135	0.085	0.28	0	1
Year is 2010	55,135	0.083	0.28	0	1
Year is 2011	55,135	0.253	0.43	0	1
Year is 2012	55,135	0.251	0.43	0	1
Age is 62 or higher	55,135	0.251	0.43	0	1
Works in the charter district	55,135	0.019	0.14	0	1
Works in the Central district	55,135	0.183	0.39	0	1
Works in the Hawaii district	55,135	0.137	0.34	0	1
Works in the Honolulu district	55,135	0.176	0.38	0	1
Works in the Kauai district	55,135	0.052	0.22	0	1
Works in the Leeward district	55,135	0.215	0.41	0	1
Works in the Maui district	55,135	0.116	0.32	0	1
Percent proficient in reading	53,397	0.685	0.12	0	0.951965
Percent proficient in math	53,397	0.515	0.16	0	0.986842
Percent of Students who qualified for free and reduced lunch	52,847	47.243	19.58	2.1	100
Percent of students enrolled for entire school year	52,844	91.043	5.50	43.9	99.3
Received one HM bonus	55,135	0.040	0.20	0	1

Appendix B

Appendix B		
Table of Comparison Groups		
Comparison Group	Included Occupations	Data source and occupational coding.
Other college educated workers	All individuals with a BA are included, regardless of occupation. Sample is restricted to full time (35+hours per week), full year (27+weeks per year) workers ages 22-65, not in school, not self employed.	ACS 5 year sample 2012
Professional and Technical Workers	Management Occupations; Business and Financial Operations; Computer and Mathematical Occupations; Architecture and Engineering; Life Physical and Social Science; Community and Social Service; Legal; Education, Training and Library; Arts, Design, Entertainment, Sports, and Media; Healthcare Practitioners and Technical Occupations.	BLS Occupational Employment Statistics (OES), May 2013. Includes OCC Codes 11-0000 through 29-9999.
EPI Identified Comparison Occupations	Accountants and auditors, Registered nurses, Occupational therapists, Physical therapists Trade and industrial teachers, Vocational and educational counselors, Underwriters, Personnel-training and labor relations specialists, Inspectors and compliance officers, except construction, Architects, Forestry and conservation scientists, Archivists and curators, Clergy, Technical writers, Editors and reporters, Computer programmers	BLS Occupational Employment Statistics (OES), May 2013. OCC codes 13-2011, 2053, 1071, 1075,1041 15-1131 17-1011, 1012 19-1031 21-1012, 2011 25-4011,4012 27-3042, 3043, 3041 29-1111, 1128
Expanded Comparison Occupations	Business and Financial Operations; Computer and Mathematical Occupations; Architecture and Engineering; Life Physical and Social Science; Community and Social Service; Education, Training and Library Occupations. Also includes editors, reporters, and technical writers, registered nurses and health therapists.	BLS Occupational Employment Statistics (OES), May 2013. Includes all OCC codes listed above and Occupational categories 21, 13, 15, 17, 19 , and 25 (not including K-12 teachers)