Wenning: Summary Data: High School Physics Teacher Recruitment & Retention

Teacher candidate recruitment: What role do you play in physics teacher candidate recruitment? Please place an "X" in the appropriate box. (wk = week; mo = month; sem = semester; yr = year)

Factors		1-4x/mo	1-4x/sem	0-1x/yr
1	How often do you provide opportunities for your physics students to teach others formally? (class presentations, lab leadership, discussion leadership, student demonstrations, board work, teaching assistant, white board presentations, etc.)	13	6	2
2	How often do you provide opportunities for your physics students to teach other physics students informally? (small group work, tutoring, lab activities, white boarding, problem-based learning, answering questions in class, etc.)	21	0	0
3	How often do you express your joy of teaching to your students as a group?	14	5	2
4	How often do you express your joy of teaching to your students individually?	8	10	3
5	How often do you encourage your students as a whole to become teachers in general?	1	11	9
6	How often do you encourage individual students to become teachers in general?	1	12	8
7	How often do you encourage your students as a whole to become teachers of physics and/or physical science in particular?	0	8	13
8	How often do you encourage individual students to become teachers of physics and/or physical science in particular?	1	7	13
9	How often do you talk about the nature of teaching with your students?	6	12	3
10	How often do you express to your students that one of the rewards of teaching is the opportunity to make a difference in the lives of others?	3	12	6
11	How often do you speak with your students about the benefits of teaching (summers off, opportunity to be creative, etc.)	3	12	6
12	How often do you speak with your students about the growing demand for physics/science teachers?	2	6	13
13	How often do you relate a particular student's general abilities (personality, good grades, interest) to the job of teacher?	3	11	7
14	How frequently do you relate the applicability of physics to phenomena encountered in everyday life?	20	1	0
15	How frequently do you talk about the nature of science and/or the scientific endeavor? (NOT Applicable but data are provided)	15	4	1

Student involvement: How frequently are your students involved in the following activities?

Factors		daily	1-4x/wk	1-3x/mo	1-3x/sem	never
16	Making prepared class presentations	0	4	4	11	2
17	Providing whole class lab leadership	0	3	3	6	9
18	Serving as a whole class discussion leader	0	2	1	11	7
19	Presenting a demonstration to the whole class	0	2	4	11	4

	Factors	daily	1-4x/wk	1-3x/mo	1-3x/sem	never
20	Speaking to the whole class about board work	2	10	5	4	0
21	Working as a teaching assistant	0	3	3	6	9
22	Participating in small cooperative group work	4	12	4	1	0
23	Tutoring other students one-on-one	2	10	3	5	1
24	Using white board strategies	1	7	3	3	6
25	Involved in problem-based learning dealing with complex real-world problems	2	5	6	4	4

Teacher retention: To what extent do each of the following factors play in making you glad that you are a teacher?

	Factors	Very important	Somewhat important	Not important
26	Ability to make a positive difference in the lives of students.	1.14	1	
27	A chance to contribute to the building up of society in general.	1.33	5-tie	
28	The joy of working with people in general and youth in particular.	1.29	4	
29	A love for the subject matter.	1.33	5-tie	
30	The joy of being able to share knowledge with others.	1.33	5-tie	
31	The great respect shown for me as a teacher.	2.24		
32	The sense of admiration that people have for me being a teacher of physics and/or physical science.	2.43		
33	The pleasure of demonstrating scientific principles.	1.52		
34	The salary	2.24		
35	Joy of working with students in a variety of settings.	1.19	2-tie	
36	Watching students rise to the challenge of physics.	1.19	2-tie	
37	Academic year allows me to have summers off.	1.90		
	Other (please specify):			

Teacher attrition: If you were to leave the teaching profession, how important would each of the factors be in your decision-making process?

	Factors	Very important	Somewhat important	Not important
38	Re-certification requirements	2.33		
39	Requirements imposed by diversity (e.g., IEP's, multiculturalism)	2.19		
40	Political correctness	2.19		
41	Lack of suitable materials for teaching (e.g., demonstrations, labs)	2.14		
42	Boredom with subject matter	2.33		
43	Unrealistic expectations of parents	2.24		
44	Unrealistic expectations of administrators	1.95		
45	Unrealistic expectations of students	2.33		

	Factor	Very important	Somewhat important	Not important
46	Poor attitudes of students (e.g., disrespect, misbehavior, disinterest, laziness, flippant attitudes, disengagement, etc.)	1.67	1	
47	Student misbehaviors (e.g., disrespect, bad language, fights, etc.)	1.71	2-tie	
48	Unrealistic demands placed upon science teachers	1.81	8-tie	
49	A personal sense of professional inadequacy	1.9		
50	Too much diversity among students in terms of interest and ability.	2.71		
51	Low ability levels of students (e.g., math inadequacy, poor logic)	2.43		
52	Experiences differ from expectations	2.29		
53	Inadequate professional preparation by teacher education program	2.67		
54	Requirements for documentation of lessons (e.g., daily lesson plans, unit plans)	2.52		
55	Legal liability concerns (e.g., civil law suits)	2.19		
56	Salary not consistent with experience, knowledge, and work	1.95		
57	Unrealistic or unfair teaching load	2.		
58	Too many class preps.	1.86		
59	Too much of a demand on personal/family time	1.76	6-tie	
60	Lack of or low level of fringe benefits	2.1		
61	Undesirable location (e.g., urban vs. suburban vs. rural)	2.33		
62	Inability to get a “desirable” job (e.g., inadequate salary, poor location, low socioeconomic status of students)	2.29		
63	Lack of support and respect from students, parents, or administration	1.71	2-tie	
64	Teaching outside of my endorsement area(s)	2		
65	Great appeal of a non-teaching job	1.9		
66	Sense of being under-prepared to teach physics subject matter	2.62		
67	Sense of being under-prepared to establish and maintain an engaging classroom environment	2.57		
68	Growth of demands on teachers without increased compensation	1.9		
69	Unrealistic expectations by students, parents, and/or school administers	1.95		
70	Lack of induction process and mentoring	2.81		
71	Unfair distribution of workload between experienced and novice teachers.	2.52		
72	Recent changes in re-certification procedures (CPDU’s/CEU’s)	2.52		
73	Required high-stakes testing	2.24		
74	The No Child Left Behind initiative	2.14		
75	Lack of adequate class preparation time	2.1		
76	Growing accountability of teachers for student learning	2.24		
77	Overly large class size (e.g., 30+ students)	1.95		
78	Lack of academic success among students being taught	2.29		

	Factors	Very important	Somewhat important	Not important
79	Increasing family demands (e.g., child rearing)	1.71	2-tie	
80	Relocation of spouse	1.71	2-tie	
81	Approaching retirement age	1.76	6-tie	
82	High cost of health coverage in relation to salary	1.81	8-tie	
83	Negative impact of teaching on family	2		
	Other (please specify):			

Your school: Please tell us a bit about some of your school's offerings; delete incorrect responses.

84	Does your high school have a science club?	YES-10	NO-8	Uncertain-3
85	Does your high school have a Scholastic Bowl, Science Olympiad, WYSE, or JETS team?	YES-18	NO-3	Uncertain
86	Does your high school have a club for future teachers?	YES-5	NO-15	Uncertain-1

Demographic information: Tell us a bit about yourself. (Please delete incorrect responses or type in correct responses if blank)

87. Has one of your students ever gone on to become a high school physics or physical science teacher?	YES-10 NO-8 Uncertain-3
88. What is/are your original secondary endorsement area(s) of teaching certification?	Physics-3 Chemistry-3 Biology-3 Math-0 Muliple-12
89. How many years have you been teaching as a science teacher?	1-5(4) 6-10(4) 11-15(3) 16-20(2) 21+(8)
90. Are you currently endorsed to teach physics?	YES-20 NO-1 Uncertain
91. How many physics content courses (not methods courses) have you taken in college?	12(10%) 3(10%)4 5 or more(80%)
92. What post-college training in physics do you have?	Summer workshop(38%) Regular graduate-level course (43%) both(14%) none(5%)
93. How well-prepared do your feel to teach physics?	Very well-62% Fairly well-38%
94. Do you have satisfactory lab equipment and space?	YES-67% NO-33%
95. Do you have satisfactory demonstration equipment?	YES-67% NO-33%
96. How did you obtain your certification?	Regular Teaching Prog.(86%)Alt. Cert. Prog.(14%
97. During what year were you originally certified as a second school teacher?	
98. Please specify any careers besides teaching science	
99. How many physics courses do you teach each year?	
100. How many different physics courses do you teach daily?	