



GOVERNING BOARD AGENDA ITEM AMPHITHEATER UNIFIED SCHOOL DISTRICT NO. 10

DATE OF MEETING: May 25, 2021

TITLE: Approval of Essential Recruitment Stipends – Chemistry, Engineering, and Math

BACKGROUND: The Governing Board first approved offering an Essential Recruitment Stipend for “Hard to Fill” positions as part of the meet and confer recommendations for FY 2005-2006. That year, the meet and confer teams recommended that the Board approve stipends for “Hard-to-Fill Positions” using criterion to be developed by the District. Their recommendation further suggested:

The addenda applies to qualified candidates holding necessary, non-emergency status certificates. This stipend shall be adjusted on a pro-rata basis, based upon the employee’s FTE in the hard-to-fill area. If the need for the stipend is no longer current, the stipend will not be offered for new hires, but will not be withdrawn from employees who are already receiving the stipend and who remain in the previously hard-to-fill area.

Following the Board’s approval of those meet and confer recommendations, Administration developed the following criteria for determination of when a position is eligible for an Essential Recruitment Stipend:

1. Number of vacancies District wide;
2. Average length of time vacancy is open;
3. Proportion number of vacancies bears to number of total positions in the district;
4. Number of similar vacancies in other districts;
5. Documented market conditions;
6. Liability factors;
7. Number of qualified applications available.

This criterion has been used consistently since then to determine eligibility for an Essential Recruitment Stipend with the final determination on whether to offer an Essential Recruitment Stipend being made by the Governing Board.

This year, Amphitheater Public Schools has experienced considerable difficulty in attracting and retaining teachers who are appropriately certified to teach chemistry, engineering, and math, which has resulted in multiple vacancies for extended lengths of time. Administration has been working to fill vacancies for teachers qualified to teach chemistry and math since the beginning of the fiscal year. Similarly, it is difficult to find teachers to teach engineering since a math, physics, or science endorsement is needed. The details associated with each category are provided below.

Chemistry

Chemistry qualifies as a difficult to fill position largely due to the competition from private industry looking to hire qualified chemists. According to TopUniversities.com, “[c]areer opportunities within science and technology are seeing unprecedented growth across the world, and those who study chemistry or another natural

science at university now have increasingly better career prospects”¹ In Arizona, chemistry teachers need an undergraduate degree in chemistry and an Arizona teaching certificate to qualify to teach chemistry. Unfortunately, private industry lures potential teachers away from the profession with promises of high salaries and career trajectory, which public schools cannot promise given the current funding provided by the state.²

The District currently has two (2) vacancies for chemistry teachers in the high schools. The first is at Canyon del Oro High School and the second is at Ironwood Ridge High School. We are competing with multiple other school districts to fill these chemistry teacher positions. The Ironwood Ridge vacancy has been advertised consistently since September 2020. It was filled this year through an addendum contract. Because of the number of students who take chemistry at Ironwood Ridge, the school has had to use addendum contracts for chemistry almost every year since 2017.

The addendum contract solution is not ideal since it requires another qualified teacher to teach an additional chemistry class during the teacher’s assigned planning time. This generally adds another type of class for which the teacher needs to prepare lesson plans, quizzes and tests, and teachers who take on this added responsibility end up working added hours each night, which takes away from their personal or family time, and leads to professional burn out. It is better in the long run both for students and staff to fill the vacancy with a full-time teacher than to piece-meal the classes to qualified teachers through addendum contracts.

At this time, the pool of qualified applicants is minimal and competition remains high. The current chemistry essential recruitment stipend is \$3,000. Federal ESSER III funds are available for school districts to use to recruit teachers after the pandemic. With the benefit of these additional funds being available to the District for the next two years to be able to recruit quality teachers to the profession post-pandemic, Administration recommends that Governing Board authorize an increase to the chemistry teacher essential recruitment stipend so that the stipend is \$5,000 to be effective for FY 2021-2022. At a proposed cost of approximately \$15,000, the decision to increase the essential recruitment stipend for chemistry teachers will place the District in being better able to recruit chemistry teachers and provide support for (and avoid burn out of) our current chemistry teachers.

Math

The same is true for math teachers. In 2018, the United State Department of Education qualified math as the area with the highest teacher shortage. “In addition to reporting high-demand subject areas, the Department of Education lists the number of states reporting teacher shortages for each of these areas and math is the highest. Math teacher shortages were found in public schools in 48 states plus the District of Columbia, which is a pretty astounding number.”³ Like chemistry teachers, math teachers need a bachelor degree in math and a teaching certificate to teach math in middle or high school. Private employers incentivize individuals with math degrees away from the teaching profession with offers of higher salaries and career mobility, thereby limiting availability of candidates who apply to teach math.

¹ Top Universities. 2021. *What Can You Do With A Chemistry Degree?* Available at: <<https://www.topuniversities.com/student-info/careers-advice/what-can-you-do-chemistry-degree>> [Accessed 18 May 2021].

² Journal, Linda BorgProvidence. “Science Project: Schools Have Tough Time Finding Math, Chem, Physics Teachers.” *Southcoasttoday.com*, Southcoasttoday.com, 23 Aug. 2018, www.southcoasttoday.com/news/20180823/science-project-schools-have-tough-time-finding-math-chem-physics-teachers.

³ “What Kind of Teachers Are in the Highest Demand?” *AllEducationSchools.com*, 11 Nov. 2020, www.alleducationschools.com/blog/what-kind-of-teachers-are-in-demand/.

Every year, the District struggles to fill math vacancies and ends up offering addendum contracts to contain class sizes in middle and high school math courses. The below table demonstrates the history of math addendum contracts since 2017:

School Year	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021
Full Time	.4 – AHS	.4 AHS	.2 – AHS	.4 – AHS	1.4 – AHS
Equivalency	.2– CDO	.2 AMS	.2 – AMS	.8 – AMS	1.7 – AAO
(FTE)	.2– LCMS	1.0 – CDO	1.0 – CDO	.8 - CDO	1.2 – IRHS
Addendum	.2– Wilson	.2 – Coronado	1.2 - IRHS	.2 – CMS	.4 – LCMS
Contracts		1.0 – IRHS		1.2 - IRHS	
By School		.2 - Wilson			
Total	1.0 FTE	3.0 FTE	2.6 FTE	3.4 FTE	4.7 FTE

There are currently several math vacancies at the middle and high school levels. The Amphitheater District is currently competing with private industry and neighboring school districts and charter schools to fill those vacancies in this highly competitive teacher market. Marana Unified School District is offering math teachers an additional \$10,000 as a recruitment incentive this year. With the District’s present essential recruitment stipend for math at \$2,000, principals are losing math teacher candidates to Marana. For this reason, Administration recommends that the math stipend be increased this year to \$5,000, which is closer to the stipend paid by Marana, to enable schools to fill their current math vacancies with new teachers instead of addendum contracts. This will cost the District approximately \$154,000, which it can fund with federal ESSER III funds for the next two (2) years. Even better, it will help reduce the number of addendum contracts required of the current math teachers to provide them with a better work/life balance and help retain them for future years.

Engineering

Engineering classes are offered in high schools as part of the District’s Career Technical Education program. Some of the District’s engineering classes qualify for dual enrollment course credit at the University of Arizona, which is an important incentive to junior and senior high school students enrolled in Amphitheater Public Schools.

Engineering teachers need either a math, physics or general science endorsement to be appropriately certified to teach engineering. There are three (3) engineering teachers in the District, and their total engineering FTE equates to 1.0 since each teacher only teaches a few engineering classes in addition to their regular subject area.

Historically, the engineering essential recruitment stipend has aligned with the math essential recruitment stipend since engineering classes are typically taught by a math teacher. This ensures that math teachers do not experience a financial loss when assigned to teach engineering in lieu of math. Because administration is recommending that the math essential recruitment stipend be increased to \$5,000, the same increase should be applied to the engineering essential recruitment stipend to keep the two stipends aligned. This would also bring the engineering stipend closer in amount to the physics stipend (\$8,000) so that there is not as significant a financial loss when a physics teacher is assigned to teach engineering in a District high school. This change will cost the District approximately \$2,420, which similarly can be funded through ESSER III funds for the next two (2) years.

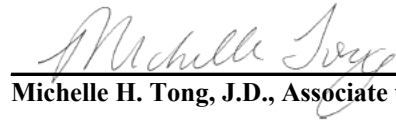
Conclusion

The proposed changes will benefit the Amphitheater District and its community by making it easier to recruit quality high school teachers in the areas of math, engineering, and chemistry. It enables the middle and high

schools to use fewer addendum contracts in future years while continuing to offer these courses at current class sizes. It also permits current teachers to realize the intended work/life balance and avoid burn out caused by multiple years of addendum contract responsibilities.

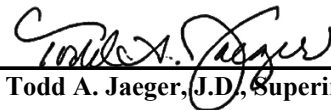
RECOMMENDATION: For the foregoing reasons, Administration recommends that the Board approve increasing the current essential recruitment stipends for teachers who teach chemistry, engineering and/or math classes to the amount of \$5,000.00 to be effective beginning in the 2021-2022 school year.

INITIATED BY:



Michelle H. Tong, J.D., Associate to the Superintendent

Date: May 18, 2021



Todd A. Jaeger, J.D., Superintendent