

**DATE:** December 9, 2016

**TO:** Executive Director, COE for Aerospace and Advanced Manufacturing

**FROM:** Richard N. Strand, Industry Analyst and Educational Consultant

**SUBJECT:** Pre-Employment/Apprenticeship, Visit to Puget Sound Naval Shipyard (PSNS)

**1. BACKGROUND:** In connection with a review of state-wide pre-employment and pre-apprenticeship programs, I visited PSNS in Bremerton, WA to meet with Mr. Reuben Farley, Director of the PSNS apprentice program. The PSNS apprenticeship program was first established in 1901 and for the past 100+ years has enjoyed a rich and storied history. PSNS is listed as the second largest industrial employer in the State, credited with employing some 13,500 personnel, mostly civilian service personnel. To sustain their trade specific requirements, PSNS employs 1,072 apprentices enrolled in a four-year rigorous program in one of 25 trades in addition to an FY 2017 target of 650 Helpers. The Helper program was instituted in 2002 and serves as a feeder program into the Apprentice Program. Presently, 100% of the approximate 300 annual available apprentice positions are filled from the most qualified candidates out of the Helper program. While there is no guarantee that a Helper will ultimately fill an available apprentice position, it offers the most likely pathway to achieve apprentice status. In this sense, it is for all intent and purposes a “pre-apprenticeship” program. Both the PSNS Apprenticeship and Helper programs operate in partnership with Olympic College (OC).

**2. PROGRAM SUMMARY:**

- a. **Apprenticeship.** PSNS anticipates needing 300 newly appointed apprentices annually through FY 2025. At present, PSNS calculates that its program is enjoying an 87% completion rate and a 95% retention rate across all four years of their program. This leads the way nationally among all four Naval Shipyards (Portsmouth, Norfolk, Puget and Pearl) and greatly exceeds the Washington State average for such programs which hovers at closer to 50%. Apprentices begin as a WT-1 with a salary of \$18.38 an hour plus benefits. They steadily rise to a WT-8 level over four years for \$27.03 per hour plus benefits. Upon successful completion of the program (includes an Industrial Trades degree from OC and the necessary hours of work experience from PSNS) they continue their career appointment as a journey-level skilled technician as a Wage Grade 10 level employee with an annual salary of \$56,766 per year.
- b. **Helper.** When the Helper program was first instituted by PSNS in 2002, it was part of the then existing Student Career Experience Program (SCEP) which allowed Federal Civil Service agencies to hire entry-level students on a non-competitive basis as employees into excepted service appointments. Upon successful completion, the employer could then award entry into a higher-level program on an as needed basis based on their demonstrated potential. In 2011 Pathways Programs (for Students & Recent Graduates) replaced SCEP. The Pathways Program provides students enrolled in an educational program with opportunities to work in agencies and explore Federal careers while still in school and while getting paid for the work performed. Students who successfully complete the program may be eligible for conversion to a permanent job in the civil service. Helpers are hired as WG-1 level employees for \$15.65 per hour plus benefits, and may be invited to participate in an after-hour education program that will elevate their chance to become an apprentice inside a year. If they remain in the Helper program and compete all requirements in the assigned year, they may be promoted to WG-5 at \$21.07 and remain on the roles as employment needs mandate and/or until merit promotions become available for placement into the apprentice program. In rare instances, they may also compete for a higher-level position if their background and skill-set warrant it.

- c. **Helper and Apprentice Program.** Operating in tandem, these two programs employ a total of 1,600-1,700 entry-level personnel, who are engaged as students and working as they progress through their career conditional positions. The goal is to achieve their full performance level as journey-level employees. This total represents approximately 12% of the total workforce and is benchmarked by PSNS against a forecast of long-term employment needs. These needs are shared with their academic partner in a collaborative fashion to ensure they are fully capable of supporting and sustaining the PSNS plan.
- d. **PSNS Work Study Program.** In addition to the aforementioned programs, PSNS leverages a student Work Study Program that allows for from 25-30 students to compete annually for placement in an internship program that pays approximately \$10 per hour and involves two 8 week sessions involving 320 hours of actual work experience per session (640 hours total) in one of 11 designated trades at PSNS. Students must be age 16, and present a positive attitude and be of good status in school. PSNS staff recruit students to fill these positions throughout Washington. On average, 40+ students apply for the program. This past year 25 were admitted, nearly all were registered as high school students. If they complete their first 8-week session successfully between their junior and senior year, and the need remains, they may be invited back for a second 8-week session during their senior year between March and June to complete the program. For post-secondary students, or students from institutions other than high school, the work schedule is arranged with the educational institution. Upon completion they may be considered for admission into the Helper Program. In the recent past, up to 75% of the Work Study students have leveraged this opportunity to become Helpers in hope of further advancing into the Apprenticeship program.

3. **SUMMARY ASSESSMENT.** The PSNS programs offer one of the most enduringly successful examples known to exist across the State. The long-term forecasting of employment needs, the level of transparency with their partner college, and the way the programs stair-step one into another, represents a “best-practice.” Research indicates that for either a pre-apprenticeship or pre-employment program to be both relevant and viable, several conditions should exist. The following table lists these conditions and applies them to the PSNS model.

Desired Condition	Applied to PSNS Programs
<b>Actively engage local businesses</b>	PSNS is a federal program that is based locally in and around the Kitsap Peninsula with their largest concentration of employees in Bremerton
<b>Rely on labor market data to drive decisions</b>	PSNS relies on attrition, retirement, and workload forecasts to assess needs.
<b>Require that participants treat the training like a job.</b>	Program participants are enrolled in fully accredited and credentialed academic programs at the same time they are fully employed. Tuition is paid by the employer.
<b>Connect people to a career opportunity</b>	Each level of training connects to a higher level of training along a viable career pathway.
<b>Provide wrap-around student services</b>	Both the college partner and the employer provide assistance along the way to facilitate student success.
<b>Tap innovative funding sources</b>	PSNS builds the funding required into their budget; WA State allows for discounted tuition for apprentices which makes the program more affordable.
<b>Embrace evaluation</b>	The employer has established very high academic/work standards.