Institutional Research – Headcount and Demand Analysis.
Email between Stephen Pool to Stephanie Kane

Sustainable Aviation Fuels

All,

I'm forwarding Stephen's review of the Sustainable Aviation Fuels program. It was difficult for him to find comparable matches for this program.

In terms of enrollment projections, both of us feel that the peak enrollment of 60 as included in the proposal is extremely unlikely. To maintain this level of enrollment, the program would have to bring in about 30 students a year, and graduate 30 students a year (assuming 2 years for typically Master's program). Given the specificity of this program and the market information below, we do not believe that to be possible or sustainable, though as Stephen notes, the industry support letters are positive. Additionally, while the Engineering Management MS program on Global currently has 56 students, most are small (with enrollments < 10). Power Systems Engineering has 19 students enrolled.

We would recommend that the program revise their enrollment projections and corresponding budget to something more modest; perhaps with entering cohorts of 5-10 for a total enrollment similar to PSE.

Please let us know if you have any questions!

Thanks,

Stephanie

From: Pool, Stephen E. <stephen.pool@wsu.edu>
Sent: Friday, October 31, 2025 4:31 PM
To: Kane, Stephanie <slkane@wsu.edu>
Cc: Walter, Jon <jdwalter@wsu.edu>
Subject: Sustainable Aviation Fuels Program Review

Hi Stephanie,

I've finished reviewing the available LMI related to the proposed Sustainable Aviation Fuels program and have put together some thoughts for you. Apologies for the delay, this necessitated a significantly deeper dive than any of my other reviews. I've done my best to summarize everything, but if you have any questions or suggested revisions for this, please let me know.

- CIP Mapping: It is unclear what the best CIP match is for a Sustainable Aviation Fuels program (SAF). Reviewing job postings from some key companies in this space, such as SkyNRG, Lanzajet, Philips 66, and Flint Hills Resources, Chemical Engineering (CIP 14.0701) presents itself as a common match. Given the emphasis on alternative energies, Energy Systems Engineering, General (CIP 14.4801) may also be appropriate, even if not what's being primarily requested by hiring companies.

- Labor Demand: Reviewing occupation mappings for both Chemical Engineering and Energy Systems Engineering, General programs, we see that Architectural and Engineering Managers; Engineers, All Other; and Chemical Engineers are standout occupations. All three have excellent wages and occupation demand for them is growing in Washington for all but Chemical Engineers, with a collective 310 annual openings. All three are stagnant or contracting within Global's highest enrollment five-state region (Washington, California, Oregon, Idaho, and Texas), but still have a collective 2,839 annual openings. Unfortunately, these occupations maps are far too broad for the relatively niche SAF.

- Job Postings: Reviewing job posting records for SAF related positions can help give us a closer proxy occupational demand for a SAF program. We were able to review job postings from Lanzajet, Philips 66, and Flint Hills Resources and found that Refining Engineers is likely our best job title match, with Process Engineers and Asset Engineers being secondary possibilities. These are still broader job titles than SAF, but reviewing national postings from these companies from 2024 to 2025, we do see 54 unique postings for Refining Engineers, 12 for Process Engineers, and 13 for Asset Engineers.

- Industry Activity: Given the niche nature of SAF, reviewing industry activity (especially within the five-state region) can help give us an another angle on demand. While Washington currently doesn't have any SAF operations, SkyNRG is establishing a facility in Walla Walla that is expected to create 100 jobs once production begins. In Texas, Diamond Green Diesel is currently producing SAF and USA BioEnergy is building a plant that will support 200 new jobs. In California, the state plans to use SAF to fuel 40% of the state's intrastate air travel demand, an effort supported by Phillips 66's SAF production in the state.

- Program Completions: In attempting to review similar programs I broadly found that fuel-specific programs are uncommon. A number of universities have programs in Sustainable Aviation (Purdue University, Embry-Riddle Aeronautical University, and University of Michigan being notable) which are looking at sustainability across a broad spectrum within aviation and aerospace, which for some programs did also include fuels. While I certainly may have missed something in my review, as it stands I cannot offer an apples-to-apples comparison.

- Key Takeaways: Based on my review of available LMI, it's difficult for me to conclusively assess occupational demand for this program. Based on my industry review, I believe there is current and increasing demand for this type of training. This is further enhanced by the letters of support written in regard to the program's creation. That said, while I do not have an exact match to compare to, I believe enrollment expectations should be tempered. Embry-Riddle Aeronautical University's Master of Science in Aviation and Aerospace Sustainability had an enrollment of 60 students in 2024 academic year (47 of which were online students). Given the university's specialization and the broader nature of their program, I would anticipate softer demand for the proposed program.