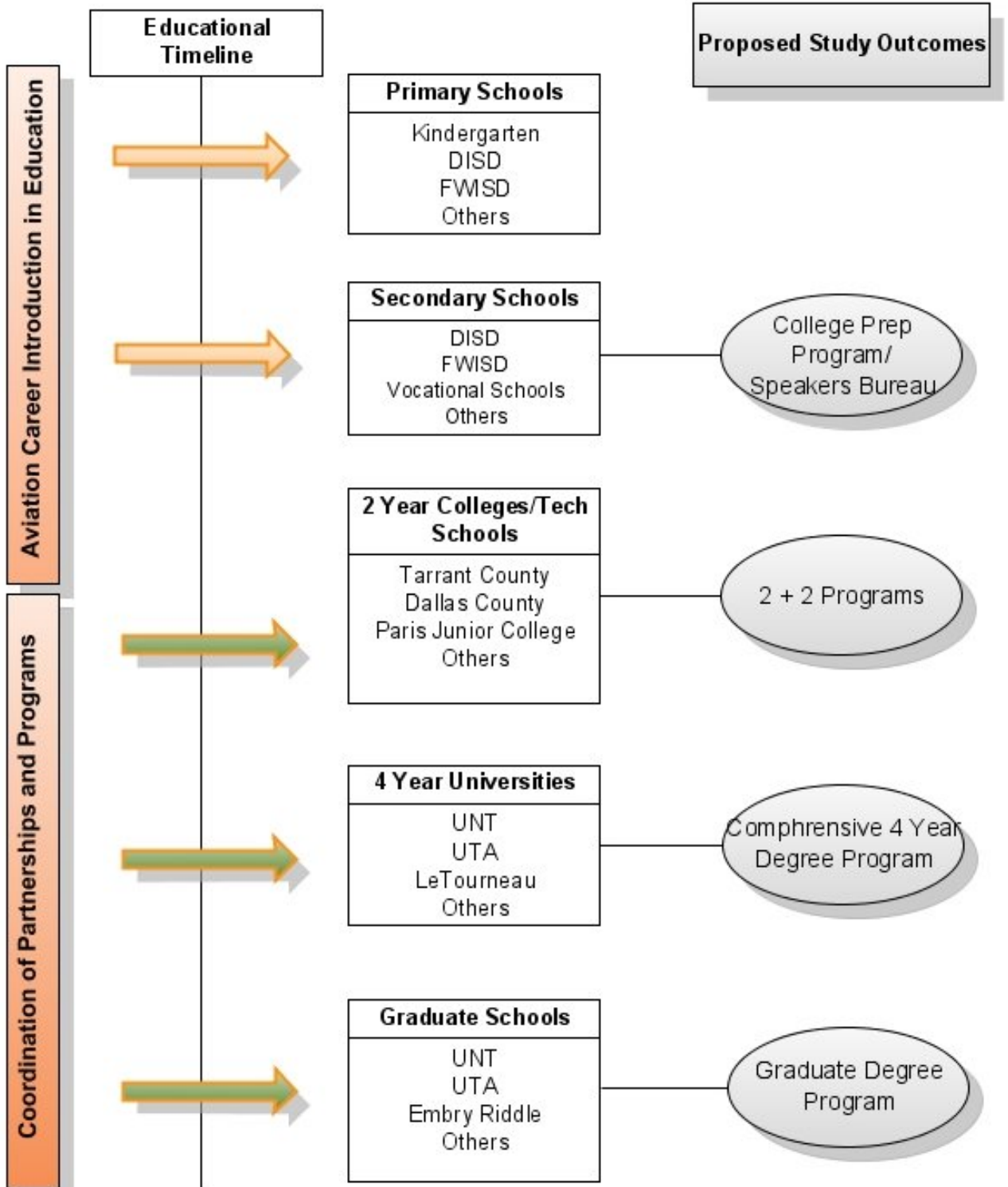
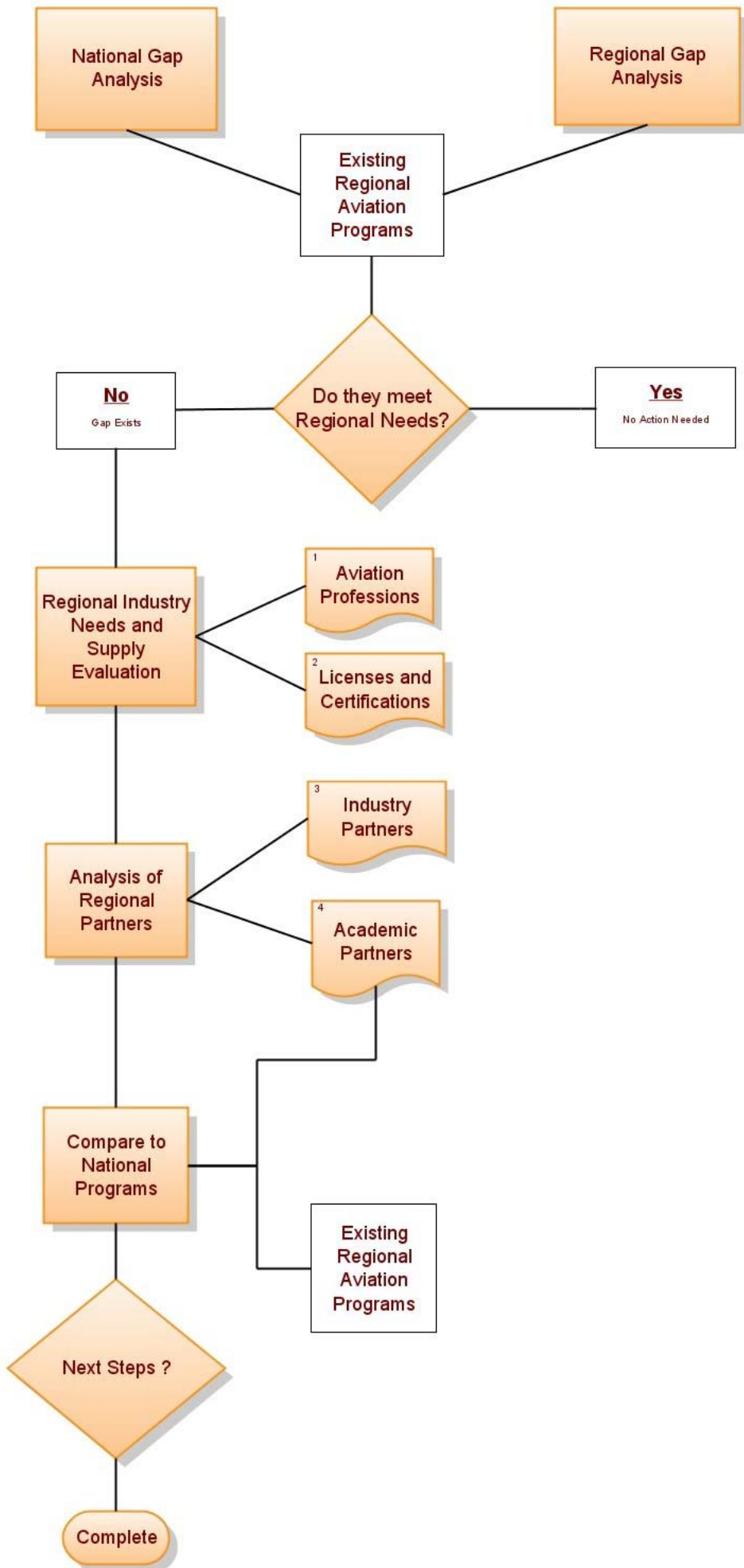


Establishing the Context and Outcome





University Aviation Curriculum Development

-  Process/Action
-  Decision
-  Documentation/Findings

- ¹ **Aviation Professions**
1. Air Traffic Controllers
 2. Aviation Maintenance
 3. Pilots
 4. Aviation Management
 5. Aviation Planners
 6. Aircraft Dispatcher / Flight Operations Officer
 7. Other
- ² **Licenses and Certifications**
1. Pilots Licenses (ATP, Commercial, etc.)
 2. Airframe and Powerplant (A&P)
 3. Avionics Line Maintenance (ALM)
 4. Certification of Dispatchers
 5. Control Tower Operator License

- ³ **Industry Partners**
1. American Airlines
 2. Southwest Airlines
 3. Bell Helicopter
 4. Lockheed Martin
 5. Fed Ex
 6. UPS
 7. Local Airports
- ⁴ **Academic Partners**
1. University of North Texas
 2. Mountain View College
 3. Tarrant County Community College
 4. Paris Community College
 5. Local ISDs

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Task 1.0: Project Management

This task includes the management, administration, reporting, regulatory compliance, and oversight associated with Tasks 2.0 through 5.0, including all subtasks. This task is to be accomplished throughout the duration of the project.

Anticipated subtasks include the following:

Subtask 1.1: Develop a Project Management Plan (PMP). The consultant shall produce a detailed Project Management Plan for management of this study including a detailed study timeline for all tasks and subtasks. A draft PMP must be submitted to the Project Review Committee no later than 30 days after the Notice to Proceed and will be reviewed for approval. (Deliverable: Project Management Plan document.)

Subtask 1.2: Submit monthly reports to NCTCOG staff. (Deliverable: Monthly reports in standard format, due on the 10th of each month, detailing work accomplished and funds expended each reporting period.)

Subtask 1.3: Provide updates on an as needed basis to the Project Review Committee. (Deliverable: Presentation materials and attendance at Project Review Committee meetings, anticipated on a quarterly basis.)

Subtask 1.4: Sustain compliance with regulatory requirements to include reporting, audits, reimbursements, cash flow, etc. (Deliverable: Assistance with related reports and audits as needed.)

Task 2.0: Review Existing National and Regional Gap Analyses

Both national and regional gap analyses have been completed for aviation industry needs versus the current supply of aviation workforce. These analyses will be reviewed as part of a comprehensive literature review. The consultant team will identify other literature that has reviewed these needs and report on it to NCTCOG staff. (Deliverable: One-page summary of additional literature to be considered. Oral reports provided to NCTCOG staff and the Project Review Committee.)

Task 3.0: Evaluate National/Regional Industry Needs and Supply/Conduct Gap Analysis

This analysis will specifically detail the existing aviation industry needs with the supply of trained professionals both at the macro level (to review on-going national trends related to aviation workforce) and at the micro level (to review and identify aviation workforce needs specific to the North Central Texas region). The analysis will result in a listing of aviation professions; required degrees, licenses, and certifications; and how those professions are being supplied with qualified individuals in the 16-county region of North Central Texas.

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Following the review of aviation professions that are required in the region, this study will review the pipeline through which students travel to become employed in each profession. This will include a comprehensive analysis of existing higher education aviation programs in the nation, State, and region. The programs will be compared to one another and compared to sample curriculum.

A detailed report of these professions and qualifications will be compiled to outline the workforce opportunities in the region. This evaluation will serve as a library of aviation workforce professions highlighting the rich aviation industry in the North Central Texas region.

Anticipated subtasks include the following:

Subtask 3.1: Collect data pertaining to aviation employment nationally and regionally. This data is to include all available details including, but not limited to, job description, job requirements, salary information, etc. This shall also include a review of the overall demand for each profession, including estimates of the number of new jobs created each year, and the number of retiring employees being replaced each year. It will also have a portion dedicated to a detailed Environmental Justice Analysis. (Deliverable: Data sets and their sources, documented in a memo to NCTCOG staff.)

Subtask 3.2: Compile a comprehensive library of aviation industry employers in the region and in the State of Texas. This list shall be developed in segments related to each aviation profession (pilot, mechanic, dispatcher, air traffic controller, etc.). (Deliverable: Listing of aviation employers, their work force needs, contact information, and employment statistics.)

Subtask 3.3: Compile a comprehensive library of aviation academic programs in the region and in the State of Texas. This list shall include detailed documentation of available degree programs, courses, licenses, certifications, tuition rates, financial aid available, etc. (Deliverable: Listing of aviation academic programs that exist today, including course requirements, degrees, licenses, certifications, etc.).

Subtask 3.4: Utilizing the libraries developed in Subtasks 3.2 and 3.3 create a matrix comparing the industry needs with academic supply for the State of Texas, and the North Central Texas region specifically. (Deliverable: Matrix comparing needs and supply.)

Subtask 3.5: Analyze the matrix developed in Subtask 3.4 to identify gaps in the current aviation academic programs offered in North Central Texas. (Deliverable: White paper detailing (1) the national aviation workforce supply (graduates from sample programs) and need (industry requirements related to retention and growth), (2) the regional aviation workforce supply (graduates from sample programs) and need (industry requirements related to retention and growth), and (3) any existing gaps at the regional level.

Task 4.0: Recommend Expanded, Coordinated, and Comprehensive Regional Aviation Curriculum

Based on the gap analysis performed in Task 3.0, the consultant will recommend a robust regional aviation curriculum to include components at the university, community college, trade

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school, high school, and junior high school level. The analysis will include recommendations related to coordination between programs including options for credit transfer between institutions throughout the region, as well as strategies for the early inclusion of aviation in academic programs from an early age.

Anticipated subtasks include the following:

Subtask 4.1: Create a sample pipeline curriculum for each aviation profession in the region to include: Aviation Management, Aviation Flight, Aircraft Maintenance, and other programs identified through the gap analysis in Task 3.0. This will include recommended connections between applicable programs at the university, community college, trade school, and high school levels. (Deliverable: White paper detailing sample curriculum for each identified profession.)

Subtask 4.2: Create a sample degree plan for a comprehensive four-year aviation curriculum program at a public university, including flight experience as necessary for each profession. (Deliverable: Sample degree plan for a university aviation program with associated timeline for implementation.)

Subtask 4.3: Develop a recommended plan for coordination between the programs at various academic levels. (Deliverable: White paper detailing coordination requirements necessary for the development of seamless aviation educational experience in the region.)

Subtask 4.4: Create an implementation plan, including a detailed schedule that will advance the development of aviation curriculum from concept to implementation on a regional level. Identify benchmarks, required participants, and funding required that will ensure regional implementation of the programs. Include recommendations related to the coordination between programs at various academic levels, to create a seamless aviation educational experience throughout the region. This will include recommended actions to connect aviation students with in-region internship opportunities and develop additional aviation scholarship opportunities. (Deliverable: Report including implementation plan, schedule, benchmarks, funding, coordination, and internship and scholarship opportunities.)

Task 5.0: Develop a Public Outreach Plan

A public outreach plan will be developed to ensure that there is an adequate future supply of students to aviation programs in the region. This plan will include outreach to area educational facilities such as primary, secondary, technical, and university institutions to spark interest in the curriculum programs that will be implemented. This plan will leverage existing programs used by aviation industry partners related to employment outreach.

Anticipated subtasks include the following:

Subtask 5.1: Develop a Speakers' Bureau which can be accessed to provide topical speakers to various educational programs throughout the region, including speakers from a cross-section of aviation professions. (Deliverable: Phone-book style listing for speakers

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who have agreed to participate. One-page marketing brochure advertising the program for distribution to schools throughout the region.)

Subtask 5.2: Create a listing of recommended outreach techniques and resources with defined focus areas for both academic and industry coordination. (Deliverable: White paper detailing recommended outreach actions to be taken by each identified partner.)

Subtask 5.3: Create a marketing plan to ensure that locally-available training opportunities are advertised to potential students. (Deliverable: Four-page marketing brochure detailing existing aviation academic programs in the region. This will include an electronic copy as well as 1,000 copies that are ready for distribution.)