

NTCPI

NATIONAL TRANSPORTATION CAREER PATHWAY INITIATIVE

TRANSPORTATION PLANNING

CAREER PATHWAY REPORT

SECTION 4 EXCERPT: IMPLEMENTATION PLAN

FEBRUARY 2019



THOMAS O'BRIEN, DIRECTOR
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SOUTHWEST TRANSPORTATION WORKFORCE CENTER



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SECTION 4.0 CAREER PATHWAY IMPLEMENTATION

4.1 Project Title

“Transportation Planning Professional Plus Certification”

4.2 Workforce Priority

In Spring 2018, SWTWC piloted a career pathway demonstration for the transportation planning discipline, that would test, validate, and document strategies for pathway deployment and the challenges/barriers institutions face in implementing such programs. Taking the form of a customized “Intro to GIS” class, this demonstration pilot introduced CTE students at Los Angeles Trade Technical College (LATTC), along with their dual-enrolled Los Angeles Unified School District classmates, to the transportation planning career path and the use of GIS technology in a planner’s typical work activities.

In this class, the use of industry contextualized curriculum, work-based project learning, accessible class scheduling, and strong employer engagement were measured to evaluate their success in steering early student career objectives. For students, this pilot provided a glimpse into the world of the transportation planner, experienced first-hand through actual fieldwork and candid discussions with industry practitioners.

Through the introduction of SWTWC’s clearly-articulated academic and occupational pathways, students were also exposed to the multiple levels of interesting, forward looking employment opportunities within this growth sector.

Over the course of researching this discipline and designing and evaluating its demonstration pilot, it became clear that few of the current academic planning programs available to planners today emphasize experiential learning (co-curricular activities) or introduce cross-disciplinary competencies in their academic plan.

As demonstrated in the 2018 pilot, both of these missing components can play a significant role in engaging K-12 and community college students around this relatively unknown career path, while at the same time prepare them for work as a modern transportation planner, using readily available tools like contextualized instruction and work-based learning activities.



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4.3 Project Description

The Transportation Planning Professional Plus (TPP+) Certificate program is intended to complete a planner's academic preparation by offering a series of extra-curricular courses in the form of modular, non-credit professional development opportunities. This course series, which culminates in a capstone project and professional certification, will deliver a set of in-demand, cross-disciplinary workplace competencies to students within a graduate planning program of incumbent professionals seeking to upskill and/or advance in their career.

By replicating CSULB's Center for International Trade & Transportation's proven Global Logistics Specialist and Marine Terminal Operator programs—both offering a series of non-credit, modular, and fee-based professional development courses that lead to professional certifications—SWTWC brings experience and infrastructure to this TPP+ implementation.

TPP+ Program Highlights:

- Industry recognized approach.
- Hierarchical, modular credentialing.
- Leads to planning professional designation.
- Supported by SoCal Universities, APA, Esri, HNTB.
- Offers credit-by-exam; credit for prior learning.
- Sustainable; fee-based instruction is self-supporting.
- Capstone project-based learning, students collaborate in multi-disciplinary teams.
- Students receive direct access to employers; incumbent career advancement.

To achieve this, SWTWC will assemble a new competency steering committee of practicing industry professionals, who collectively will perform a needs assessment to determine which competencies are most valued by employers (and missing from new-hires), then prioritize them in terms of their deployment within the modular/stackable course framework of TPP+.

Once a modular TPP+ course framework is designed, syllabi prepared, and a pilot curriculum developed, SWTWC will launch the first course at its own continuing education facility on the CSULB campus. Pilot participants will be recruited from partner organizations, the USC Price School of Public Policy, and from APA's local chapter membership.

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TPP+ Module Competencies:

- Presenting complex problems using GIS story maps.
- Understanding land use policy and regulations.
- Working with environmental studies and litigation teams.
- Rendering complex scenarios through data visualization.
- Public and community engagement.
- Esri ArcMap for Dummies.

Full scale deployment of the TPP+ program will include access to multiple, stackable modules that culminate in a student capstone project and a professional certification. SWTWC will work with project partner APA to endorse the TPP+ certificate nationally and to recognize its courses for continuing education credit. Articulation agreements for credit transfer (credit by exam or credit for prior learning) with local colleges and universities will also be negotiated.

4.4 Implementation Partners

SWTWC thanks its partners for their continued engagement, contribution, and commitment to developing workforce solutions that positively impact the lives of students and the incumbent workforce. In their support of this career pathway pilot implementation for the transportation planning discipline, each of these valued partners have agreed to participate as key contributors to this plan's deployment, success, and long-term sustainability. SWTWC's partner organizations, including their roles and responsibilities, are presented below:

Los Angeles Trade Technical College (LATTC): As both a deployment and implementation partner, LATTC provides access to underrepresented student populations, facilities for classroom orientation and facilitation, on-campus recruitment resources, access to their CTE Transportation Pathway student pipeline, and connection to their Transportation Workforce Institute employer network and high school program. As a funding recipient of California's Strong Workforce program—which seeks to develop more workforce opportunity and lift low-wage workers into living-wage jobs—LATTC is also a valued funding provider for pilot courses.



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Pima Community College (PCC): Like LATTC, Pima is another partner launch site in Arizona for scaling and replicating the 2018 “Intro to GIS” planning demonstration pilot. Pima’s mostly rural and tribal student population will benefit from exposure to the transportation planning career path and its documented career potential, while at the same time providing SWTWC with new feedback and refinement on this K-12 to community college to university bridge program.



PimaCommunityCollege

USC Price METRANS Transportation Center: The Sol Price School of Public Policy at the University of Southern California is the first of five regional universities with an APA-accredited planning program to partner with SWTC on TPP+. As home of the METRANS Transportation Center—a responsibility shared with CSULB, USC and its broad network of industry partners will play a critical role in assessing the competencies and workplace skills most desired for their planner incumbents, advising on curriculum development and experiential learning activities, providing professional planning faculty advisors, and evaluating the outcomes of the first TPP+ module pilot.



Statewide Director for Advanced Transportation & Logistics: As part of the California Community College Chancellor’s Office “Doing What Matters for Jobs and the Economy” initiative, the Office of ALT oversees all transportation-related workforce projects, collaboratives, and initiatives within the state of California. This office provides the comprehensive network infrastructure necessary to fully assess, pilot, and scale the TPP+ program through to capstone certification.



Esri: An international supplier of geographic information system software, web GIS, and geodatabase management applications, Esri is a major contributor to pilot deployment through the licensing of its ArcGIS software and providing in-class guest lecturers and access to GIS data sets.



Southern California Association of Governments (SCAG): Another critical industry partner, SCAG is the nation's largest metropolitan planning organization, representing six counties, 191 cities, and more than 18 million residents. SCAG offers internships, guest lecturers, assessment committee advisors, subject matter expertise, and access to a wide cache of research project data.



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4.5 Partner Commitments

In an expression of their commitment to the deployment and mission of this implementation plan, SWTWC partners have “signed-on” as key contributors of time, expertise, resources, and in some cases funding, through the authorized letters of agreement presented below. It is this level of engagement that makes a program of this scale possible.



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USC Price

Sol Price School of Public Policy

Genevieve Giuliano
Margaret and John Ferraro Chair in Effective Local Government
Director, METRANS Transportation Center

February 19, 2019

Dr. Thomas O'Brien, Director
Southwest Transportation Workforce Center
California State University, Long Beach
6300 State University Drive
Long Beach, CA 90815

RE: National Transportation Career Pathways Initiative
Planning Career Pathway Implementation Partnership

Dear Dr. O'Brien,

The METRANS Transportation Center, Sol Price School of Public Policy, University of California, is pleased to partner with the Southwest Transportation Workforce Center in the deployment of a career pathway program for the transportation planning workforce. METRANS recognizes the importance of transportation and urban planning in our regional economy and remains firmly committed to creating and articulating clear career pathways that promote student access to higher learning, success in their academic endeavors, and that open up opportunities for a professional career. We believe partnering with SWTWC in this venture is in direct alignment with our mission.

We understand the proposed project, Transportation Planning Professional Plus (TPP+), would establish a series of non-credit multi-disciplinary learning modules that deliver in-demand workplace competencies to students in planning programs and to professional planners. Modeled after the successful Global Logistics Specialist and Marine Terminal Operator programs, SWTWC would host TPP+ courses that are taught by industry professionals, offer continuing education credit, and culminate in a transportation planning capstone project and TPP+ professional credential.

As a lead project partner, we intend to participate in the following ways:

- Test pilot TPP+ courses with Price School students.
- Advise on a needs assessment of competency module learning objectives.
- Support an NSF proposal for longitudinal tracking of student career choice.
- Attend and participate in Planning discipline working group meetings.

University of Southern California
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giuliano@usc.edu



METRANS is highly supportive of this initiative. We look forward to better equipping professionals for career opportunities in transportation planning.

Sincerely,

Genevieve Giuliano
Professor and Director
Margaret and John Ferraro Chair in Effective Local Government

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Pima County Community College District

February 18, 2019

Dr. Thomas O'Brien, Director
Southwest Transportation Workforce Center
California State University, Long Beach
6300 State University Drive
Long Beach, CA 90815

RE: National Transportation Career Pathways Initiative
Planning Career Pathway Implementation Partnership

Dear Dr. O'Brien,

Pima Community College (PCC) is pleased to partner with the Southwest Transportation Workforce Center (SWTWC) in the deployment of a career pathway program for the transportation planning workforce. PCC is firmly committed to advancing communities through pathways to academic and career success that empower students to achieve career technical certificates, associate degrees, career training programs, and continuing education. We believe partnering with SWTWC in this venture is in direct alignment with our mission.

We understand the proposed project, Transportation Planning Professional Plus (TPP+), would establish a series of non-credit multi-disciplinary learning modules that deliver in-demand workplace competencies and provide experiential learning opportunities to students looking beyond their college education to a professional career. We see the potential for TPP+ to expand access to priority occupations in transportation planning to K-16 students by helping them contextualize their academic learning experience and foster engagement around career choice.

As a lead project partner, PCC intends to participate in the following ways:

- Provide leadership in developing workforce solutions.
- Participate in the student screening and recruitment process.
- Work collaboratively to develop and administer training programs.
- Offer access to classrooms, computer labs, course instructors, and textbooks.
- Attend and participate in all Planning discipline working group meetings.

PCC is highly supportive of this initiative and we look forward to providing our students with better access to career opportunities in transportation planning.

Sincerely,

Ian R. Roark, Ed.D., Vice President of Workforce Development

Cc: Lee D. Lambert, Chancellor & CEO
David Dore, Ed.D., President

Community Campus

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4.6 Project Outcomes

During the first year of deployment, SWTWC, in collaboration with its Planning Steering Committee and implementation partners, will deliver the following project outcomes:

Transportation Planning Professional Plus Initiative

1. Pilot Bridge Program Launch w/ 10 Students, Pima Community College.
2. Quarterly Convenings: Planning Steering Committee.
3. Transportation Planning Industry Needs Assessment Report.
4. Project Plan w/ Syllabi for Full Rollout, TPP+ Program.
5. New Curriculum, Pilot TPP+ Competency Module.
6. Pilot TPP+ Course Launch w/ 10 Students, Cal State Long Beach.
7. Credit Articulation Agreement, USC/CSULB Academic Programs.
8. APA Credential Endorsement; CE Credit Authorization.
9. NSF Funding Proposal for Student Career Tracking.

4.7 Project Timeline

The proposed implementation activities for project year 2019-2020 are outlined below:

Transportation Planning Professional Plus Initiative

- | | |
|---|------------------------------|
| 1. Replicate Bridge Program at Pima | July – December 2019 |
| 2. Assemble & Convene Steering Committee | July 2019, Quarterly |
| 3. Complete Industry Needs Assessment | August 2019 |
| 4. Validate thru Broad Network Survey | September 2019 |
| 5. Establish Framework, TPP+ Series | September – November 2019 |
| 6. Develop Syllabi, TPP+ Credential | October – December 2019 |
| 7. Develop Curriculum, Pilot Module | November 2019 – January 2020 |
| 8. Identify Faculty, Train-the-Trainer | October 2019, January 2020 |
| 9. Promote, Recruit, Enroll Students | January 2020 |
| 10. Launch Pilot (10 Students Min) | Spring 2020 |
| 11. Measure, Evaluate, Report, Refine | June 2020 |
| 12. Establish Roadmap, Full Rollout | April 2020 |
| 13. Establish Credit Articulation, Post-Secondary | May 2020 |
| 14. Establish Credit/Certificate Endorsement, APA | June 2020 |
| 15. Submit First-Year Project Report | July 2020 |
| 16. Develop Student Pathway Tracking Strategy | January – February 2020 |
| 17. Submit NSF Funding Proposal (est.) | March 2020 |

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4.8 First Year Workplan



PROJECT TITLE: Transportation Planning Professional Plus Certificate Program
ORGANIZATION: Southwest Transportation Workforce Center
PROJECT PI: Dr Thomas O'Brien

	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19	Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20
Replicate Bridge Program at Pima												
Access Unique Tribal Demographic												
Develop & Deploy Intake Program												
Launch, Track, Measure, Evaluate												
Generate Summary Report												
TPP+ Steering Committee												
Assemble & Convene												
Industry Needs Assessment												
Broad Stakeholder Network Survey												
Identify Faculty Candidate												
Meet Quarterly to Refine Program												
TPP+ Certification Program												
Establish Framework, TPP+ Series												
Develop Syllabi, TPP+ Credential												
Develop Curriculum, Pilot Module												
Prep Instructor (Train the Trainer)												
Recruit/Enroll Pilot Students												
Launch Pilot Module												
Launch, Track, Measure, Evaluate												
Establish Roadmap, Full Rollout												
Establish Credit Articulation												
Credit/Certification Endorsement, APA												
Submit 1st-Year Project Report												
Propose Student Tracking to NSF												
Develop Pathway Tracking Strategy												
Submit NSF Funding Proposal												

(July 2020)

(estimated)

(end of report)