

Quality and Productivity Commission
33rd Annual Productivity and Quality Awards Program
"Empowering Innovative Solutions"

2019 APPLICATION

Title of Project (Limited to 50 characters, including spaces, using Arial 12 point font):

NAME OF PROJECT: UNPRECEDENTED DISCOVERY WITH CAREER PATHFINDER

DATE OF IMPLEMENTATION/ADOPTION: JUNE 27, 2018

(Must have been fully implemented for a minimum of at least one year - on or before July 1, 2018)

PROJECT STATUS: _____ Ongoing One-time only

HAS YOUR DEPARTMENT PREVIOUSLY SUBMITTED THIS PROJECT? _____ Yes No



EXECUTIVE SUMMARY: Describe the project in 15 lines or less using Arial 12 point font. State clearly and concisely what difference the project has made.

1 Career PathFinder is an online, interactive tool that leverages "big data" to help current
 2 and prospective employees plan their careers. Supported by analysis of hundreds of
 3 thousands of employee records from the past 30 years, Career PathFinder transforms
 4 this rich data into meaningful information to provide never-before-offered insights such
 5 as the most-to-least common paths employees have traveled to or from each job title
 6 and the salary difference of each of those paths. It enables users to interact dynamically
 7 with data to build individualized paths that can guide their career. Garnering an average
 8 of over 2,600 unique visitors per month, Career PathFinder furthers the wave of data
 9 transparency and accessibility championed by LA County in recent years. By making
 10 actual career path data available, Career PathFinder helps users envision the broad
 11 spectrum of career possibilities from each job. It also helps boost users' confidence in
 12 their career decisions by equipping them with the powerful knowledge of where those
 13 decisions have led other employees. In praising the tool, LA County employee Patricia
 14 Martinez said, "How I wished I had this knowledge 10+ years ago," and employee
 15 Andrew Krause said the tool "was amazing to see [and] gave me hope for my future."

BENEFITS TO THE COUNTY

(1) ACTUAL/ESTIMATED ANNUAL COST AVOIDANCE	(2) ACTUAL/ESTIMATED ANNUAL COST SAVINGS	(3) ACTUAL/ESTIMATED ANNUAL REVENUE	(1) + (2) + (3) = TOTAL ANNUAL ACTUAL/ESTIMATED BENEFIT	SERVICE ENHANCEMENT PROJECT
\$	\$	\$	\$	<input checked="" type="checkbox"/>

ANNUAL = 12 MONTHS ONLY

SUBMITTING DEPARTMENT NAME AND COMPLETE ADDRESS Department of Human Resources 500 West Temple St. Room 579 Los Angeles, CA 90012		TELEPHONE NUMBER (213) 974-2407
PROGRAM MANAGER'S NAME Paul Canning		TELEPHONE NUMBER (213) 738-2299 EMAIL PCanning@hr.lacounty.gov
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE (PLEASE CALL (213) 893-0322 IF YOU DO NOT KNOW YOUR PRODUCTIVITY MANAGER'S NAME) Darolyn Jensen 	DATE 6/28/19	TELEPHONE NUMBER (213) 974-2515 EMAIL DJensen@hr.lacounty.gov
DEPARTMENT HEAD'S NAME AND SIGNATURE Lisa Garrett 	DATE 6/28/19	TELEPHONE NUMBER (213) 974-2406

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1st FACT SHEET – LIMITED UP TO 3 PAGES ONLY: Describe the **challenge(s), solution(s), and benefit(s)** of the project to the County. What quality and/or productivity-related outcome(s) has the project achieved? Provide measures of success and specify assessment time frame. Use Arial 12 point font.

CHALLENGE - In the past, individuals seeking information about LA County careers voiced a common frustration about how difficult it was to navigate our agency’s complex structure of 2,000+ job titles. Two general questions emerged from these individuals: “If I apply for [*named job*], what future jobs may exist for me?” and “If I want to hold [*named job*] in the future, how do I get there?” Not being able to easily find answers to these questions resulted in less-than-optimal outcomes for these individuals (e.g., lack of useful knowledge about career possibilities) as well as for LA County (e.g., cost of employee time spent on inefficient career planning, potential loss of talent, and numerous requests for one-on-one career guidance).

Although sequential career paths were clear (e.g., Analyst I to II to III and so on), less clear was the full spectrum of career paths that may exist (e.g., Analyst I to Administrator II to Deputy I). Individuals faced definite career planning hurdles if they did not already have or know someone who had deep familiarity with our job structure. To clear the way for these individuals to effectively plan their careers, we faced the challenge of clarifying, simplifying, and translating the intricacies of career moves within LA County.

SOLUTION - Our Career PathFinder is a key solution to this problem. It is an online tool for exploring the actual paths employees have taken during their careers with the County. It transforms hundreds of thousands of employee records from the past 30 years into meaningful information about actual job-to-job employee moves. Through an interactive, question-driven exploration of the data, users choose specific jobs to include on their career path based on information such as the historical popularity of each career move (i.e., most-to-least common paths traveled to and from each job title), the current salary difference from job-to-job, the number of incumbents, etc. Having these previously unavailable insights is key to effective LA County career planning.

Project vision and objectives. Driven by the Department of Human Resources’ (DHR’s) strategic goal to “transform HR services through continuous innovation, enhanced partnerships, and the creation of digital ecosystems,” we aimed to clarify, simplify, and translate the intricacies of career moves within LA County to benefit career planners, managers, supervisors, and HR professionals.

Customers. Career PathFinder serves all current and potential LA County employees.

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As an employer of choice, LA County receives employment applications from all over the country. As such, the Career PathFinder was designed to be used by anyone interested in a career with the County – regardless of geographical location and career stage. In addition to serving these career planners, Career PathFinder also serves the managers, supervisors, and HR professionals who help guide those career planning efforts.

Innovation/Resourcefulness/Uniqueness. People may think that career planning is a well-established field of practice in which little to no innovation is likely to occur. Our Career PathFinder shatters this thinking by leveraging technology, huge datasets, and creative design to empower career planners in new ways. LA County is potentially the first in the world to mine its massive employee data records to develop a robust career-planning tool. We are proud to serve as a model to agencies seeking to leverage big data to inform and inspire career planners.

Technology. After many iterations over several years that included a functioning Microsoft Excel prototype, the development of Career PathFinder accelerated with use of the free and open-source R language for data analytics and visualization. This technology enabled our data scientists to better understand vertical and horizontal career moves across 3,000+ current and now-obsolete job titles and nearly 200,000 employees over 30 years (e.g., direction of each move, time between each move, popularity of each move). It also enabled our data scientists to formulate business rules to make the data more useful to end-users (e.g., remove records that introduced anomalous paths or noisy data) and build a robust web-based prototype to quickly test the usability of the business rules as they were being developed.

The final Career PathFinder application is a WordPress site with React JS plugins that drive users’ unique interaction with the data (e.g., which job title to explore, whether to explore paths leading to or from that job title, and whether to explore the most recent 15- or full 30-year dataset). To streamline the process of updating the data displayed to users, we also used R technology to develop a desktop application that acts as an intermediary between the County’s HRIS and the WordPress site. This desktop application enables analysts without prior knowledge of R to update the Career PathFinder.

Partner Contributions. Career PathFinder’s development was led by DHR’s Workforce and Employee Development Division - Succession & Workforce Planning Program team through a collaboration with partners in DHR’s Information Technology Services Division. The project team demonstrated a prototype of the Career PathFinder to various forums within LA County in order to solicit feedback and better

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understand the needs of employees. These forums included participants in the Management Development Program, Data Science Forum, and Career Day events. From the feedback received during these demonstrations, we were able to identify new features for the Career PathFinder.

With generous funding from LA County’s Quality and Productivity Commission, a vendor was contracted to create the final WordPress site according to the project team’s statement of work and with ongoing input from the project team.

BENEFITS - Recent industry research states that 60% of HR leaders believe their companies provide employees a clear career path, while only 36% of employees believe this to be true. The Career PathFinder has helped to bridge this gap for our agency, and it has achieved noteworthy results to date.

Since August 16, 2018 there have been over 22,600 unique visitors to the Career PathFinder tool, averaging over 2,600 users per month. According to Google Analytics, the website has seen visitors from 49 states, including other government agencies and educational institutions. Approximately 10% of visitors have been from outside the Los Angeles metropolitan area and 5.5% from outside California. Comments from our online feedback survey illustrate Career PathFinder’s impact:

- “It is user friendly and the information provided gives you a glimpse of what is out there in LAC (actual percentage of people holding such job title). In my years working with LAC, this is the first time a tool like this has been introduced. Thank you DHR!”
- “I like that the report identifies all of the possible paths in items/classifications, along with the salary differences, that one might not necessarily consider when applying for jobs.”
- “Gives me ideas of which way I can go. I never knew about this. This would have helped me years ago. I thought I was stuck because I didn’t want to move forward as a secretary”

Career PathFinder has generated an estimated annual cost avoidance of more than \$226K per year (see page 6), earned a 2018 GCN Government Innovation Award, 2019 National Association of Counties Achievement Award, and achieved the endorsement of a Regional Director of SEIU Local 721 - Southern California’s largest public sector union. There are still many ways in which the Career PathFinder will result in tangible outcomes. In the coming months and years, DHR intends to study impacts on recruitment, engagement, and retention since the launch of the Career PathFinder.

Please consider the Career Pathfind for the Customer Service Award.

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Linkage to the County Strategic Plan – 1 page only. Which County Strategic Plan goal(s) does this project address? Explain how. Use Arial 12 point font.

Career PathFinder aligns with County **Strategic Plan Goal III: Realize Tomorrow’s Government Today**, which states that “Our increasingly dynamic and complex environment challenges our collective abilities to respond to public needs and expectations. We want to be an innovative, flexible, effective, and transparent partner focused on advancing the common good.” Specifically, the Career PathFinder addresses the fourth Strategy identified in the Plan for achieving this Goal:

- **Strategy III.4 - Engage and Share Information with Our Customers, Communities and Partners.** Push data and information to internal and external customers, communities, and partners to enable informed decision making and to support partnerships.

The aspects of “innovation” and “transparency” in the Goal and “informed decision-making” in its Strategy are where Career PathFinder thrives. Career PathFinder enables users to make informed decisions about jobs to pursue by outlining the career futures those jobs have actually created. This level of transparency about career trajectories and histories has never been offered before – by the County or any agency. In an employment landscape where talented individuals change jobs with more frequency than in years past, it is imperative for the County to clearly showcase the vast number of career options that exist within our wide-reaching organizational umbrella to attract and retain talent. Career PathFinder showcases this data and information to enhance current and prospective employees’ career-related decision-making, driving home the County’s commitment to addressing their needs and expectations in dynamic, innovative, open ways.

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COST AVOIDANCE, COST SAVINGS, AND REVENUE GENERATED (ESTIMATED BENEFITS TO THE COUNTY): If you are claiming cost benefits, include a calculation on this page. Please indicate whether these benefits apply in total or on a per unit basis, e.g., per capita, per transaction, per case, etc. You must include an explanation of the County cost savings, cost avoidance or new revenue that matches the numbers in the box. Remember to keep your supporting documentation. Use Arial 12 point font

Cost Avoidance: Costs that are eliminated or not incurred as a result of program outcomes. Please indicate whether these are costs to the County or to other entities.

Cost Savings: A reduction or lessening of expenditures as a result of program outcomes. Please indicate whether these were expenditures by the County or by other entities.

Revenue: Increases in existing revenue streams or new revenue sources to the County as a result of program outcomes.

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