



Information Communications Technologies Study

This study represents a unique partnership among three organizations—The AT&T Foundation, the Latino Institute for Corporate Inclusion (LICI), and the Career Ladders Project (CLP)—who share a core commitment to enlarging opportunities for diverse Californians, especially among populations historically underrepresented in the ICT workforce. The study focuses on strategies to increase Latino and African-American representation in ICT careers.



ICT is the umbrella term that encompasses everything related to computing, software, information, networking and communications technologies. This study focuses on entry and middle-level ICT careers with an interest in increasing diversity and highlighting potential pathways of growth. The information gathered through this study will prove valuable for California employers, enabling them to plan for their future workforce, develop potential partnerships with educational institutions, and inform their approach to education and training in this sector.

Preliminary findings include themes related to the central importance of career knowledge, applied learning, structured programs and navigation support to increase pursuit and attainment of ICT career goals among Latinos and African-Americans. The study identifies the critical role of collaboration in the development of ICT industry informed career pathway strategies.

PARTNERSHIP

The AT&T Foundation provided funding to the Latino Institute for Corporate Inclusion for the research study, recognizing the LICI's role as a Latino diversity advocate and partner with corporate America. In carrying out the research, the LICI partnered with the Career Ladders Project, leveraging CLP's expertise across educational and workforce systems to explore the challenges to diversification in the ICT sector and the potential for systems change.





PRELIMINARY FINDINGS

THEMES TO INCREASE LATINO AND AFRICAN-AMERICAN PARTICIPATION IN ICT

1. CAREER KNOWLEDGE
Equip Latinos and African-Americans with the information and support they need to make informed decisions about the pursuit of careers in ICT
2. APPLIED LEARNING
Prepare Latinos and African-Americans for ICT careers and generate excitement for technology through applied learning in both educational and workplace settings at all levels of the educational continuum
3. STRUCTURE AND NAVIGATION
Accelerate development of highly structured ICT career pathways that empower Latinos and African-Americans to set and pursue short- and long-term goals and to successfully navigate the academic environment
4. COLLABORATION
Leverage collective resources and synergize efforts to help Latinos and African-Americans attain postsecondary credentials and advance in ICT careers through a ladder of opportunities
5. TAKING PRACTICES TO SCALE
Elevate a shared career pathway agenda across systems, scaling what works for students of color

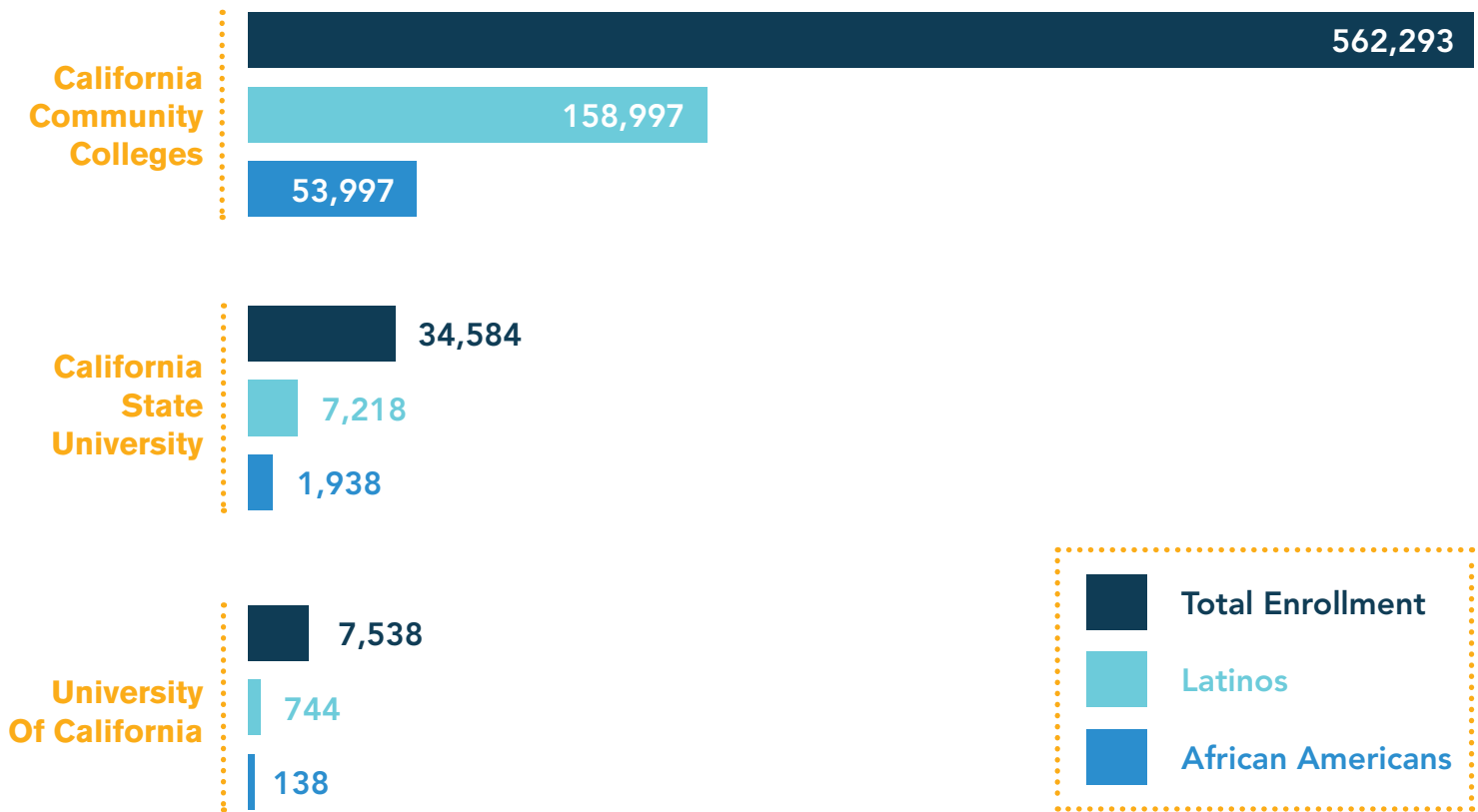
BARRIERS TO ENTRY INTO ICT PROFESSIONS

1. Limited information and opportunities for exploration of ICT professions and careers
2. Limited opportunities for applied learning that opens doors to entry and middle-skill ICT careers and beyond
3. Unclear steps and industry-required credentials along the pathway to ICT career entry and advancement
4. Structural siloes that isolate K-12 schools, community colleges, four-year institutions, workforce systems and industry
5. Small scale of California's inventive and effective career pathway programs and approaches

When done right, the career pathway framework addresses all five themes, weaving ongoing career exploration, experiential learning, coherent programs and services, model partnerships and systems change seamlessly together on behalf of students and workers. The themes also signal ways that we can rethink and restructure practice across the entire educational continuum. If we are to avoid short-tracking students and truly realize the goal of increasing college and career attainment for historically underrepresented groups, then innovation must continuously reach back into K-12 education as well as forward to transfer institutions and beyond.

Change in the composition of the ICT workforce will not come about overnight. It will require the inspiration, creativity and commitment of multiple partners, addressing the core themes above from varied perspectives, shaping new strategies and changing systems in profound ways. This Study includes the voices of ICT students and workers, teachers and school administrators, hiring managers and leaders in industry in this ongoing dialogue.

Enrollment in ICT Programs Overall and by Ethnicity: 2010



Source: Population data from CA Department of Finance for 2010, <http://www.dof.ca.gov/research/demographic/reports/projections/p-1/>. UC and CSU Enrollment data from California Postsecondary Education Commission Custom Data Reports, most recent data available is Fall 2010 data: <http://www.cpec.ca.gov/OnLineData/SelectFinalOptions.asp>. Enrollment based on matches between CIP codes and ICT TOPs codes. Enrollment includes undergraduate and graduate enrollment. CCC enrollments are from CCC Chancellor's Office, 2010-11 academic year for credit enrollment, collected by MPICT. Study is in progress, system data analysis has yet to be finalized.

California Population

Total	37,309,382
Latinos	14,057,596
African Americans	2,188,296



ICTS

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ACKNOWLEDGEMENTS

The Latino Institute for Corporate Inclusion wishes to acknowledge and thank the AT&T foundation for funding this study. We are very grateful for AT&T's generous support and we are proud to have partnered with the Career Ladders Project in this important research.

The primary research conducted for this Study was overseen by Dr. Lois A. Ritter, EdD, MS, MA, MS-HCA. Advisors to the Study included Ruben Jauregui and Dr. Donna Maria Blancero, Ph.D. of the Latino Institute for Corporate Inclusion; and Linda Collins, Theresa Rowland, Luis Chavez and Veronica Sanchez-Casian of the Career Ladders Project. Central to the successful recruitment of survey and interview participants were representatives from the Bay Area Video Coalition, Coalition for Science After School, Exploratorium, Mid-Pacific ICT Center (MPICT), and SRI International. We extend special thanks to each individual who participated in an extended interview.

The Study's themes, recommendations and policy agenda evolved through the engaged participation and shared insights of leaders in the field. We recognize the dedicated commitment of the members of the Study's Review Panel: Stephanie Couch, John Carrese, Ingrid Dahl, Doris Duncan, Olivia Herriford, Ruben Jauregui, Leslie Kern, David Pena, Olis Simmons, Pier Thiry and Chris Wu. We also express our appreciation for the expert consultation of two California State University, East Bay faculty members: Dr. Doris Duncan, Professor in Computer Information Systems and Accounting, and Dr. Eddie Reiter, Professor in the Department of Mathematics and Computer Science.

The attached report builds on research by Dr. Ritter, as well as additional data and case studies conducted by the Career Ladders Project. The report was drafted by Kathleen Schaefer and Jennie Mollica and completed by the Career Ladders Project. Mallory Newell conducted statistical research and data analysis to inform the Study, and Roy Robles of the Career Ladders Project was responsible for the production of the Study, including its photography and design.

Note: Next phase of peer review is currently in progress; additional reviewers to be added to this list.

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