CHRISTOPHER M. PEÑA, PH.D.

CURRICULUM VITAE

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PROFILE

Institutional Research – 12 years

- Quantitative research
- Qualitative research
- Assessment/evaluation
- Predictive analytics
- Equity and inclusion
- Student success
- Peer analysis
- Budget and finance

Data Management – 16 years

- Master data management
- Data governance
- Data modeling
- ODS/EDW design
- Database development
- Lifecycle management
- Data visualization
- BI development

EMPLOYMENT SUMMARY

FACULTY

Assistant Professor of the Practice, Business Information & Analytics, 2022-Present
University of Denver

LEADERSHIP

Deputy Strategy Officer, Office of the President, 2022
Metropolitan State University of Denver

Director of Data Management, Institutional Research & Analysis, 2016-2022
University of Denver

Assistant Director, Institutional Research & Analysis, 2015-2016
University of Denver

PROFESSIONAL

Senior Research Analyst, Institutional Research & Analysis, 2014-2015
University of Denver

Research Analyst, Institutional Research & Analysis, 2010-2014
University of Denver

International Student Advisor, International Student & Scholar Services, 2009-2010
University of Denver

Database Development Consultant, English Language Institute, 2007
Oregon State University

International Student Advisor, International Student & Faculty Services, 2006-2009
Oregon State University

Department Manager, Department of Teacher & Counseling Education, 2006
Oregon State University

LEADERSHIP EXPERIENCE

DEPUTY STRATEGY OFFICER
Metropolitan State University of Denver
Jan 2022 – Aug 2022

Directed implementation of the university's strategic plan to ensure identified objectives were measured, assessed, and aligned with MSU Denver's mission, vision, and values across the organization. Advised the chief strategy officer and senior leadership on the strategic use of data to inform institutional planning and support advocacy with community partners and the state legislature.

Data Strategy
Aligning strategic, tactical, and operational planning across the institution to advance access and success for minoritized and underserved students in Colorado.
- Developed the institutional framework for measuring institutional effectiveness and operationalizing the MS Denver 2030 Strategic Plan.
- Project managed development of a KPI dashboard for the Board of Trustees, president, and senior leadership to monitor progress toward strategic goals and identify operational areas of improvement and review.
- Project managed development of a diversity dashboard for the Board of Trustees and chief diversity officer to monitor progress toward goals within the university's strategic plan for diversity, equity, and inclusion and communicate related metrics to faculty, staff, students, and members of the larger community.
- Project managed an exploratory study to inform planning for design and construction of university-owned housing for MSU Denver students.
- In collaboration with the chief strategy officer and chief financial officer, reviewed and redeveloped institutional budget development processes to align with the university's strategic priorities and focus on program viability.
- In collaboration with the director of data and analytics, established practices to effectively communicate institutional data to internal and external stakeholders.

DIRECTOR OF DATA MANAGEMENT
University of Denver
Oct 2016 – Jan 2022

Served as data lead for the academic reporting line and chief reporting officer for the university. Directed central institutional research operations to inform strategic planning, academic and business operations, and budget development. Developed and managed data architecture to deliver analysis and insight to senior leadership. Co-administered the university's business intelligence and visualization software solutions. Led and collaborated with campus partners and data officers to implement policies and practices that advance the strategic use of data in decision-making at the university.

Data Management
Developing and executing functional strategies and objectives to build an agile data infrastructure for Institutional Research & Analysis.
- Developed a data governance framework for the university to advance the use of data assets as a strategic resource across campus. Primary objectives included improving access to data products, expanding and centralizing metadata and data dictionaries, and maintaining security and appropriate use of institutional data.

- Developed a master data management plan for the institutional research data architecture and warehouse, identifying and prioritizing data stores for development and mapping relationships between products and platforms to reduce redundancy and improve access to high-quality data.
- Designed and built solutions in Python, Cognos, and R to automate completion of recurring reports and compliance reporting for federal and state governments and accrediting bodies, yielding a net gain of five months of FTE time that was redirected to institutional research, analytics, and development projects.
- Designed and built an inventory of SQL and Python scripts to automate routine data preparation, transformation, and calculation tasks, improving consistency of derived data and eliminating duplication of work across projects.
- Developed business and technical documentation for definitions, data sources, and reporting methodology for institutional research operations, ensuring consistency in reporting and analysis across projects.
- Served as data management lead during implementation of Civitas, an enterprise application acquired to model persistence outcomes and support student success. Directed mapping and validation of data from the university's main information system and collaborated with stakeholders to develop practices to centrally store and maintain external data critical to the project.
- Directed development of a programmatic solution to generate faculty course evaluation summary reports for annual faculty reviews and tenure and promotion after Information Technology failed to deliver a product after a four-year delay.
- Successfully negotiated with Information Technology to upgrade Tableau Server after a three-year delay, resolving version conflicts between Tableau products and ensuring secure-access data were properly stored and shared within the university network.

Institutional Research & Analysis

Delivering systematic, objective research and analysis to inform decision-making and advance access, equity, and success in higher education.

- Served on the Fall Logistics Task Force, convened by the chancellor to address the institution's response to COVID-19 and inform planning during the pandemic.
- Project managed identification of new comparator and competitor institutions for peer analysis and benchmarking student outcomes using statistical modeling.
- Directed qualitative analysis of results from the university's administration of the ModernThink Employee Engagement survey, a proprietary tool acquired to understand challenges around engagement and climate on campus.
- Project managed the university's pilot participation in the Delaware Cost Study, bridging data between multiple academic and finance systems to enable accurate peer analysis of instructional costs and productivity.
- Designed and conducted a comprehensive analysis to identify and recommend measures that could be leveraged to improve the university's standing in the U.S. News, QS, and Times Higher Education rankings in alignment with the chancellor's 4-D model for student success.

- Designed and conducted the university's first predictive analytics study to understand the factors related to first-time, first-year student persistence.
- Developed the institutional framework for measuring and reporting persistence, graduation rates, and debt load for graduate students, and designed and built a dashboard to communicate outcomes at the program level for enrollment managers.
- Designed and conducted an assessment of the effect of the university's English Language Proficiency Assessment (ELPA) exam on retention and graduation outcomes of non-native speakers of English.
- Designed and conducted a comprehensive historical analysis of graduate admissions in the Josef Korbel School of International Studies to inform strategic planning for enrollment management.
- Designed and managed an analysis of curriculum changes among undergraduate students from matriculation to graduation to understand their effect on outcomes.
- Designed and managed an analysis of major, minor, and concentration combinations among undergraduate students to understand how the university's core curriculum policies and practices support interdisciplinary education.
- Designed and conducted a comprehensive analysis of retention and graduation outcomes of graduate programs for integration with enrollment management.
- Established and strengthened partnerships with data officers in academic units and the Registrar's Office, Office of Admission & Financial Aid, Office of Graduate Education, Office of Business & Financial Affairs, Office of Research & Sponsored Programs, Office of International Education, and University Advancement, laying the foundation for dotted line reporting to Institutional Research & Analysis.

Diversity, Equity, and Inclusion (DEI)
Establishing Institutional Research & Analysis as a trusted partner in institutional efforts to achieve diversity, equity, and inclusion.
- Project managed development of the university's Diversity, Equity, and Inclusion Dashboard to bring public transparency and accountability to DEI outcomes in academic and business operations.
- Project managed and developed the data integration plan for the University's inaugural participation in the Aspire Institutional Change (I-Change) Network self-assessment, which is designed to catalyze systemic institutional change to advance DEI faculty and student initiatives in STEM.
- Identified substantive technical errors in the university's Affirmative Action Plan (AAP) report, ensuring institutional compliance with EEO reporting and resolving pervasive issues of misidentification of race/ethnicity, promotion history, and educational background.
- Drafted a policy statement and revised nomination procedures for the Board of Trustees' membership committee with the co-chair of the Staff of Color Association (SOCA) to increase diversity and equity on the university's governing board, at the Board's request.

- Project managed and developed the research plan and instrument for the university's inclusive excellence audit, a three-year study of the capacity to achieve inclusive excellence in academic and business units. Results informed development of unit-level strategic plans to achieve inclusive excellence.
- Served as a founding member of the Chancellor's Diversity and Equity Advisory Council (CDEAC), a council of faculty, staff, and administrators who advised the chancellor on ongoing and emerging issues related to diversity, equity, and inclusion. Represented CDEAC in searches for the provost, vice chancellor for information technology, vice chancellor for student affairs, chief diversity officer, and senior associate provost for academic administration.
- Served as an ex-officio member of the university's DEI Steering Committee, advising the Interim Vice Chancellor for Diversity, Equity, and Inclusion on planning and analysis to develop a formal framework to present to the chancellor, provost, and campus community for approval.
- Served as a member of the Pay Equity Study Advisory Committee, which was charged with identifying and addressing systemic institutional inequities in compensation practices for women and people of color. Advised leadership on research design for the study, data management, and communications with the campus community. Collaborated with the chancellor's chief of staff to address issues of inequity in leadership of the project, weak research design, and poor quality of service from external consultants.
- Advised and coached the co-chair of the Staff of Color Association (SOCA) in a two-year process of redeveloping the organization from a social network into an advocacy group with formal voice in university policy development, administrative hires, and advancing strategic initiatives around diversity, equity, and inclusion.

Team Development
Building capacity and cultivating a culture of excellence to expand the scope and efficiency of the institutional research function.
- Designed an eight-month development program to rapidly develop systems knowledge, data literacy, and agile approaches with research analysts. Transitioned the program into Canvas in preparation for instruction with external data officers.
- Developed a three-month training program in Canvas for institutional research staff to gain advanced SQL development skills, enabling them to build more complex and efficient queries.
- Developed a one-month training program in Canvas for institutional research staff to gain advanced report development skills in Cognos, enabling them to use the product for reporting and analysis and building self-service tools.
- Developed a structured onboarding program in Canvas to introduce new staff to the history, values, and strategic goals of the office and adjust to their position during the first three months of employment.
- Successfully managed the separation of two underperforming research analysts and redesigned the search process to identify and recruit high-performing candidates and accurately discern their ability and potential for professional development.

- Developed a career ladder and growth rubric to guide the professional development and advancement of research analysts by connecting them to opportunities and experiences tailored to the needs of the office and their individual goals.
- Developed a structured process for internal and external reporting and analysis that emphasizes autonomy and peer review of work products to ensure accuracy and consistency and sharpen data literacy skills.
- Transitioned weekly staff meetings for the office to biweekly individual check-ins with research analysts and biweekly all-staff meetings that emphasize making local learning global through presentations on projects, literature reviews, and emerging issues in institutional research and data management.

Policy Analysis
Developing institutional policy and practice to advance the strategic use of data in decision-making at the university.
- Drafted the university's policy on institutional reporting and data sharing in accordance with the National Association for College Admission Counseling (NACAC) Principles of Good Practice.
- Conducted an exhaustive review of data governance policies and practices at other institutions to develop a framework for data strategy at the university.
- Directed a review of national and international rankings to map methodologies, identify potential areas of focus, and recommend practices to improve the university's rankings in alignment with the strategic plan.
- Directed a review of institutional policies at other colleges and universities to identify and implement best practices around the collection and analysis of data related to diversity, equity, and inclusion, including demographics, campus climate, and outcome measures.

ASSISTANT DIRECTOR
University of Denver
Oct 2015 – Sep 2016

Led and conducted institutional research projects to support strategic and operational planning at all levels of the university. Project managed the development of dashboards, visualizations, and analytic tools to deliver strategic metrics to administrators. Trained and supported research analysts to ensure accurate reporting and analysis.

Development
Employed best practices in business intelligence and analytics to deliver information and insight to the university's leadership.
- Project managed development of the strategic metrics dashboard for the Board of Trustees to deliver key performance indicators and peer analysis on enrollment management, student outcomes, and financial health.
- Implemented business-side administration of Tableau Server and Tableau Desktop, a $150K solution acquired by the university to support data visualization and improve access to data and analytic insights across campus.
- Project managed the transition of the University Factbook to self-service visualizations in Tableau, eliminating over 200 manually generated PDF reports and recouping two months of FTE time.

PROFESSIONAL EXPERIENCE

SENIOR RESEARCH ANALYST
University of Denver
Sep 2014 – Sep 2015

Designed and conducted institutional research projects to inform planning and development. Developed reporting tools, dashboards, and visualizations to deliver institutional data to internal and external audiences. Provided functional training and technical support to data officers across campus.

RESEARCH ANALYST
University of Denver
Sep 2010 – Aug 2014

Conducted recurring and ad hoc data analysis for campus stakeholders. Prepared and submitted institutional data to federal and state agencies, accrediting bodies, and higher education publishers. Monitored data in central reporting system to ensure their accuracy and consistency and tested upgrades in Banner, Cognos, and reporting views.

INTERNATIONAL STUDENT ADVISOR
University of Denver
Jun 2009 – Sep 2010

Advised international students and exchange visitors on issues related to their immigration status. Served as Designated School Official for the F-1 program and Alternate Responsible Officer for the J-1 program. Developed institutional policies and practices in accordance with guidelines issued by DHS, DOS, and USCIS. Administered the fsaAtlas international student and scholar management system. Designed and managed the office website and communication plan.

DATABASE DEVELOPMENT CONSULTANT
Oregon State University
Jun 2007 – Dec 2007

Temporary position to project manage development of a SQL Server database application to support academic and administrative operations in the English Language Institute, including admissions, enrollment management, registration, teaching loads, and grades. Replacement of the prior legacy system was a prerequisite for initiating an institutional partnership with INTO UK, the first in the United States.

INTERNATIONAL STUDENT ADVISOR
Oregon State University
Sep 2006 – Jun 2009

Advised international students and exchange visitors on issues related to their immigration status. Served as Designated School Official for the F-1 program and Alternate Responsible Officer for the J-1 program. Ensured institutional compliance with federal reporting requirements to the Department of Homeland Security and the Department of State. Developed and administered database applications to manage international student and scholar data, office workflow, and immigration consulting.

DEPARTMENT MANAGER
Oregon State University
Jan 2006 – Sep 2006

Managed the daily operations of the Department of Teacher and Counselor Education and served as executive assistant to the department chair. Oversaw the hiring of adjunct instructors and generated the department course schedule. Managed the application process for undergraduate and graduate programs. Developed and administered database applications to manage admission applications and teacher and counselor licensure.

ADMINISTRATIVE ASSOCIATE
Baylor University
Aug 2003 – Aug 2004

Assisted the office manager in managing daily operations for the Department of Geosciences. Scheduled laboratory course sections and supervised graduate teaching assistants. Prepared assistantship award packages and disbursements. Managed contracts for the acquisition and maintenance of scientific equipment.

EDUCATION

Ph.D., Research Methods and Statistics, 2023
Concentration: Institutional Research
University of Denver

M.A., Research Methods and Statistics, 2015
Cognate: Business Information and Analytics
University of Denver

Graduate Certificate, Business Intelligence, 2011
Emphasis: Data Warehouse Design
University of Denver

B.A., Anthropology and French, 2003
Minor: Philosophy
Baylor University

LEADERSHIP EDUCATION

Emerging Leaders Program, 2017
University of Denver – Daniels College of Business

The Emerging Leaders Program is three-month experiential learning program designed to help participants develop their personal philosophy of leadership and acquire effective team member and team leadership skills. Participants come from a diverse range of industries, including business, finance, information technology, and education.

HONORS AND AWARDS

Graduate Education Dissertation Fellowship Award, University of Denver, 2023
Featured Presentation Award, Association for Institutional Research (AIR) Forum, 2016
Schomburg Fellowship, State University of New York at Buffalo, 2004-2005

CERTIFICATIONS

CITI Program – Responsible Conduct of Research (Credential ID 39195850)
CITI Program – Human Subjects Research for Investigators (Credential ID 39195849)
CITI Program – Conflict of Interest (Credential ID 39195851)

FIELD EXPERIENCE

FIELD ASSISTANT
Baylor University
Mar 2001

Surveyed potential investigation sites in Thy, Denmark, under the supervision of Dr. Tina Thurston. Collected and catalogued material samples for archaeological analysis. Retrieved and reviewed regional parish maps for 800 to 1100 A.D. to identify historical changes in urban development to guide site digs.

TEACHING EXPERIENCE

UNDERGRADUATE

INFO 1010 – Analytics I: Data Management & Analysis – Fall 2022-Present
INFO 3240 – Enterprise Information Management – Fall 2022-Present
INFO 3300 – Data Warehousing – Fall 2022-Present

GRADUATE

INFO 4140 – Business Databases – Spring 2022-Present
INFO 4240 – Data Warehousing – Summer 2022-Present

SELECTED PRESENTATIONS

CONFERENCES

Data and DEI: The Demographic Landscape at DU. Panel discussion at the University of Denver Diversity Summit in Denver, CO. January 2021.

Building Capacity and Creating a Culture of Excellence in IR. Speaker session presented at the AIR Forum in Denver, CO. June 2019.

Using Python to Automate Reporting and Data Management. Speaker session presented at the AIR Forum in Orlando, FL. Denver, CO. June 2019.

Beyond Campus Climate: Assessing Capacity to Achieve Inclusive Excellence. Speaker session presented at the AIR Forum in Orlando, FL. 2018.

Impact Visualization Showcase. Panel discussion at the AIR Forum in Washington, D.C. June 2017.

Using Data Visualization Software to Develop an Interactive Factbook. Speaker session presented at the AIR Forum in New Orleans, LA. June 2016.
* Selected as one of ten featured presentations at the conference.

An Analysis of Factors Related to First-Time, First-Year Persistence. Speaker session presented at the AIR Forum in New Orleans, LA. June 2016.

INVITED TALKS

An Inclusive Future for Latinx People in Colorado. Panel session moderated during the University of Denver Hispanic Heritage Month in Denver, CO. October 2021.

Strategic Planning and College Rankings. Presented to HED 4294 Seminar: Rankings in Higher Education at the University of Denver in Denver, CO. October 2019.

Leveraging Tableau to Advance Institutional Research. Presented at the Denver Tableau User Group meeting in Denver, CO. February 2017.

Communicating Institutional Data through an Interactive Factbook. Presented at the Colorado Tableau Higher Education Group meeting in Denver, CO. April 2016.

Internationalization at Home: A Review of Efforts at DU. Speaker session presented at the University of Denver Internationalization Summit in Denver, CO. April 2015.

Using Tableau to Redesign the University Factbook. Presented at the Colorado Tableau Higher Education Group inaugural meeting in Denver, CO. June 2015.

SERVICE EXPERIENCE

PROFESSIONAL SERVICE	*Secretary,* AIR Board of Directors, 2022-Present
	Member, AIR Board of Directors, 2021-Present
	Member, AIR BOD – Governance and Orientation Committee, 2021-Present
	Member, AIR BOD – Board of Directors as Ambassadors Committee, 2021-2022
	Member, AIR Forum Program Committee, 2015-2018
	Proposal reviewer, AIR Forum, 2015-2018
	Grant reviewer, Colorado Department of Education, 2015-2016
UNIVERSITY COMMITTEES	*Member,* Data Governance and Integrity Team, 2022
	Member, MSU Denver Community Cabinet, 2022
	Co-Chair, DEI Data Committee, 2021-2022
	Chair, Data Governance Steering Committee, 2020-2022
	Member, Pay Equity Study Methods Working Group, 2020-2022
	Member, COVID-19 Fall Logistics Task Force, 2020-2022
	Member, Pay Equity Study Advisory Committee, 2019-2022
	Member, Civitas Data Implementation Steering Committee, 2018
	Member, Registration and Billing Committee, 2016-2022
	Member, Chancellor's Diversity and Equity Advisory Committee (CDEAC), 2015-2020
	Member, Diversity and Inclusive Excellence Audit Working Group, 2015-2018
	Member, Diversity Dashboard Working Group, 2015
	Member, Information, Measurement & Analysis Council (IMAC), 2014-2022
	Member, Status of Faculty and Staff of Color Committee, 2014-2015
	Member, HLC Accreditation Review Working Group, 2010-2011
	Member, Daniels College of Business Inclusive Excellence Committee, 2009-2010
	Member, University Advisory Council for Persons with Disabilities, 2006-2009

SEARCH COMMITTEES	
Administrators	*DEI representative,* Assistant Vice Provost for Student Success, 2021
	DEI representative, Vice Chancellor for Information Technology, 2020
	DEI representative, Vice Chancellor for Diversity, Equity, and Inclusion, 2020
	DEI representative, Vice Chancellor for Student Affairs*,* 2020
	DEI representative, Provost and Executive Vice Chancellor, 2020
	DEI representative, Vice Chancellor for Diversity, Equity, and Inclusion, 2020
	DEI representative, Provost and Executive Vice Chancellor, 2018
	DEI representative, Vice Chancellor for Information Technology, 2016
	DEI representative, Sr. Assoc. Provost for Budget, Planning & Analysis, 2016
	Member, Assistant Provost for Institutional Research & Analysis, 2016
Professional Staff	*Member,* Director of Planning and Design, 2022
	Member, Director of Equal Opportunity, 2019
	Member, Student Success Analyst, 2019
	Chair, Institutional Research Analyst, 2018
	Chair, Institutional Research Analyst, 2017
	Member, Director of Academic Assessment, 2016
	Member, Senior Research Analyst, 2016
	Member, Institutional Research Analyst, 2016
	Member, Institutional Research Analyst, 2015
	Member, Academic Data Specialist, 2014
	Chair, Institutional Research Analyst, 2013
	Member, Institutional Research Analyst, 2012
	Chair, SEVIS Coordinator, 2010
	Member, Student Services Coordinator, 2009
	Member, International Student Advisor/Sponsored Programs Manager, 2009
	Chair, EEO/AA Specialist, 2007

PROFESSIONAL AFFILIATIONS

CURRENT	
	Association for Institutional Research (AIR)
	American Education Research Association (AERA)
	American Statistical Association (ASA)
	Data Management Association International (DAMA)
	Data Management Association – Rocky Mountain Chapter (DAMA-RMC)
	National Association of College and Business Officers (NACUBO)
	Educause
	Denver Tableau User Group
	Higher Education Tableau User Group
PAST	NAFSA: Association of International Educators
	American Anthropological Association

LANGUAGES

MODERN	English – Native proficiency
	French – Full professional proficiency
	German – Professional working proficiency
LITERARY	Latin – Intermediate reading proficiency
	Old English – Basic reading proficiency

TECHNICAL SKILLS

STATISTICS/ANALYSIS	SPSS, SPSS Modeler, STATA, AMOS, JMP, MPlus, Winsteps, Facets, ArcGIS
DATABASES	SQL Server, Oracle, Hadoop, AWS, Azure, NoSQL, PostgresSQL MongoDB
DATABASE DEVELOPMENT	SSMS/SSRS/SSIS, Oracle Data Modeler, Oracle SQL Developer, Visio
PROGRAMMING	SQL, Python, R, Visual Studio, VBA, PL/SQL
VISUALIZATION	Tableau, Power BI, Python, R, Cognos Analytics
PROJECT MANAGEMENT	MS Project, Crystal Ball, Asana
REPORTING	Cognos Analytics, SAS, Tableau, Ellucian ODS/EDW, Theia
WEB DESIGN	Drupal, Dreamweaver, OmniUpdate, HTML, CSS
OPERATIONS	Banner, Canvas, Blackboard, Activity Insight, Qualtrics, fsaAtlas, TerraDotta