

Geospatial and Population Studies

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Director

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Mission

Geospatial and Population Studies supplies trustworthy information that serves communities and government agencies; offers cutting-edge technology and research methods; and provides a fertile training ground at UNM for a new generation of applied researchers and decision makers.

CY 2018 Goals And Status

Goal 1: Increase funding sustainability.

Status: GPS increased funding from \$1.3 million in 2017 to \$1.7 million in 2018.

Goal 2: Ensure that the U.S. Census Bureau has a complete and up-to-date address frame for New Mexico.

Status: GPS secured \$380,000 in funding for Local Update of Census Addresses (LUCA) program and submitted over 100,000 residential addresses that were either missing or incorrect in the Census Bureau's Master Address File.

Goal 3: Continue to update census geodatabase.

Status: Redesigned a state master residential address file database.

Goal 4: Standardize all GPS databases.

Status: Traffic Research Unit databases have been standardized and awaiting the finalization of SQL server infrastructure. Demographic Research Unit database will be integrated later this year.

Goal 5: Increase staff professional development.

Status: All staff members underwent a variety of professional development, including conferences, cross training, online courses and academic classes.

Goal 6: Change name to "Institute for Geospatial and Population Studies."

Status: In consultation with GPS advisory committee.

Goal 7: Develop new integrated website with integrated branding.

Status: Launched the newly integrated website. Initiated a GPS Facebook page with relevant posts. Expanded awareness within state and local governments.

Membership of Advisory Committee

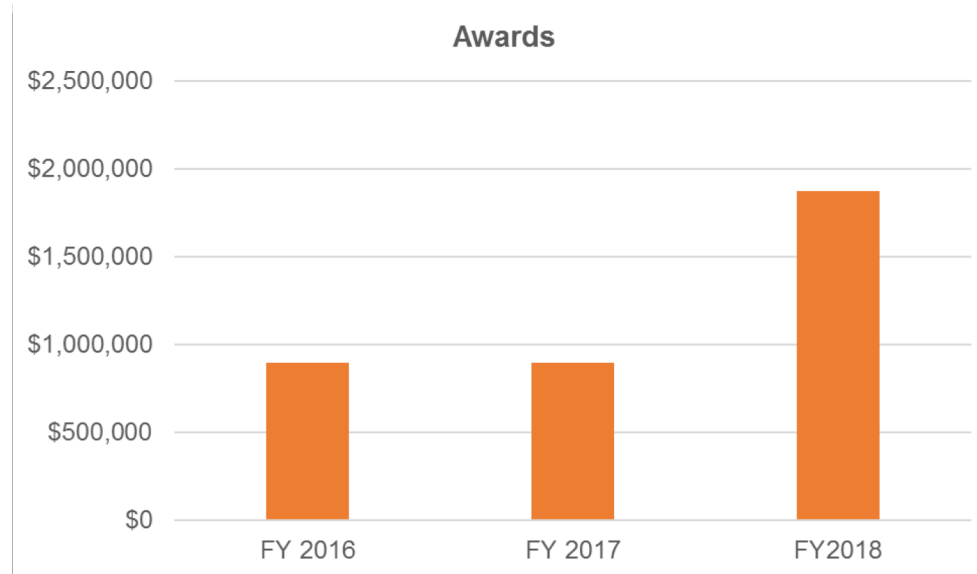
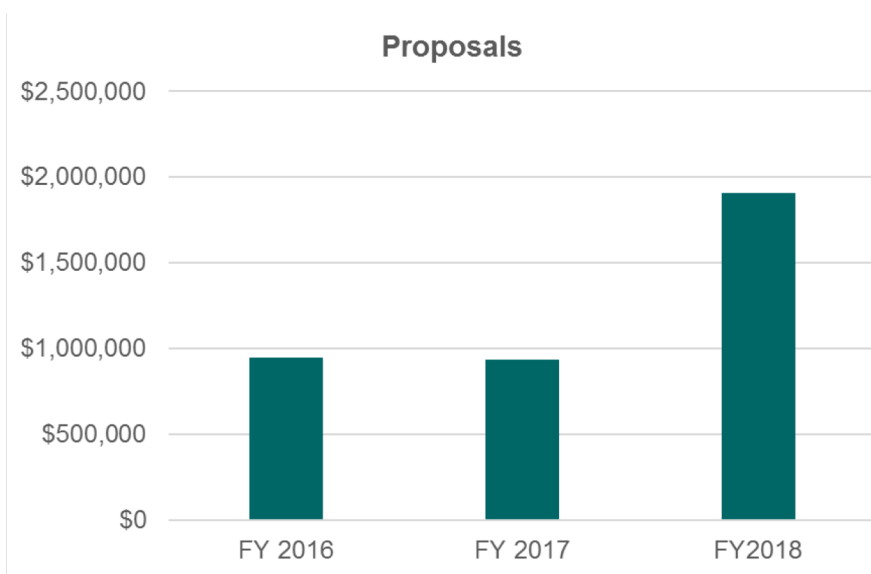
- Amy Ballard, Associate Dean, Central New Mexico Community College
- Renia Ehrenfeucht, Professor, UNM School of Architecture and Planning
- Allan Oliver, Executive Director, Thornburg Foundation
- Gabriel Sanchez, Professor, UNM Department of Political Science
- David Swanson, Professor Emeritus, University of Washington

GPS' Advisory Committee is constituted in accordance with UNM Policy A91#1

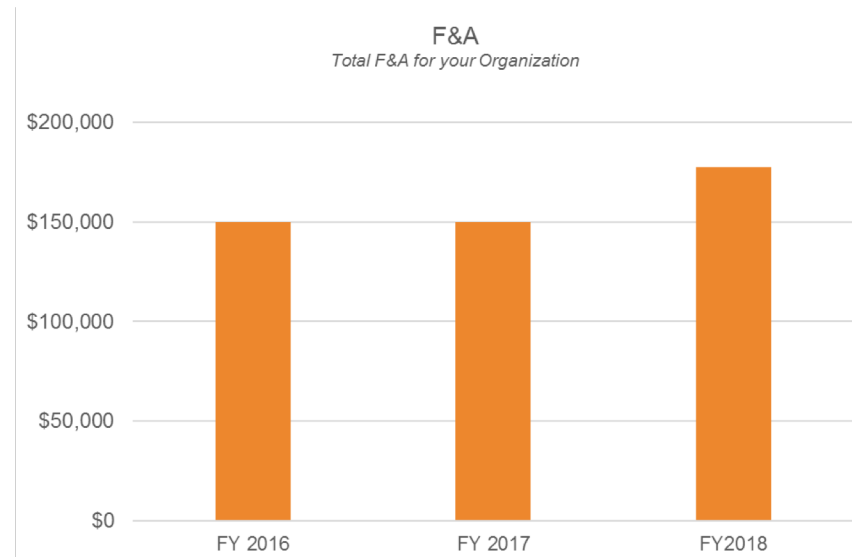
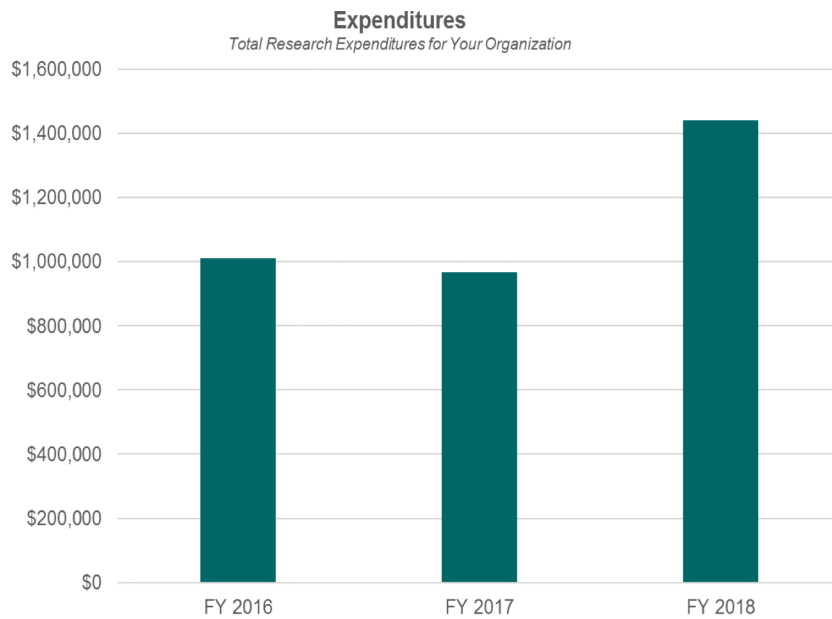
CY 2018 Highlights

- Awarded multiple contracts to complete the Local Update of Census Addresses (LUCA) program and submitted over 100,000 residential addresses to the Census Bureau which will result in hundreds of millions of federal dollars allocated to New Mexico over the next decade.
- Four-year renewal of NMDOT data analysis contract, which included a 3 percent annual increase in funding.
- Annual renewal of NMDOH small-area population estimates contract, which included a 5 percent increase in funding and an agreement to provide additional funding when re-series of past estimates are needed.
- Renewal of Carfax and Experian contracts.
- Award of contract on commercial driver license facial recognition, from the NM Taxation and Revenue Department.
- Award of special projects contract from NMDOT.
- Addition of 2 FTE equivalents to GPS staff.
- Planning and preparation for the Second Biennial Population and Public Policy Conference.
- Raised awareness around the state about the importance of counting the 2020 Census.
- Had over 6,000 website views in the 4th quarter of 2018 and created a GPS Facebook to increase public awareness.

Proposals & Awards



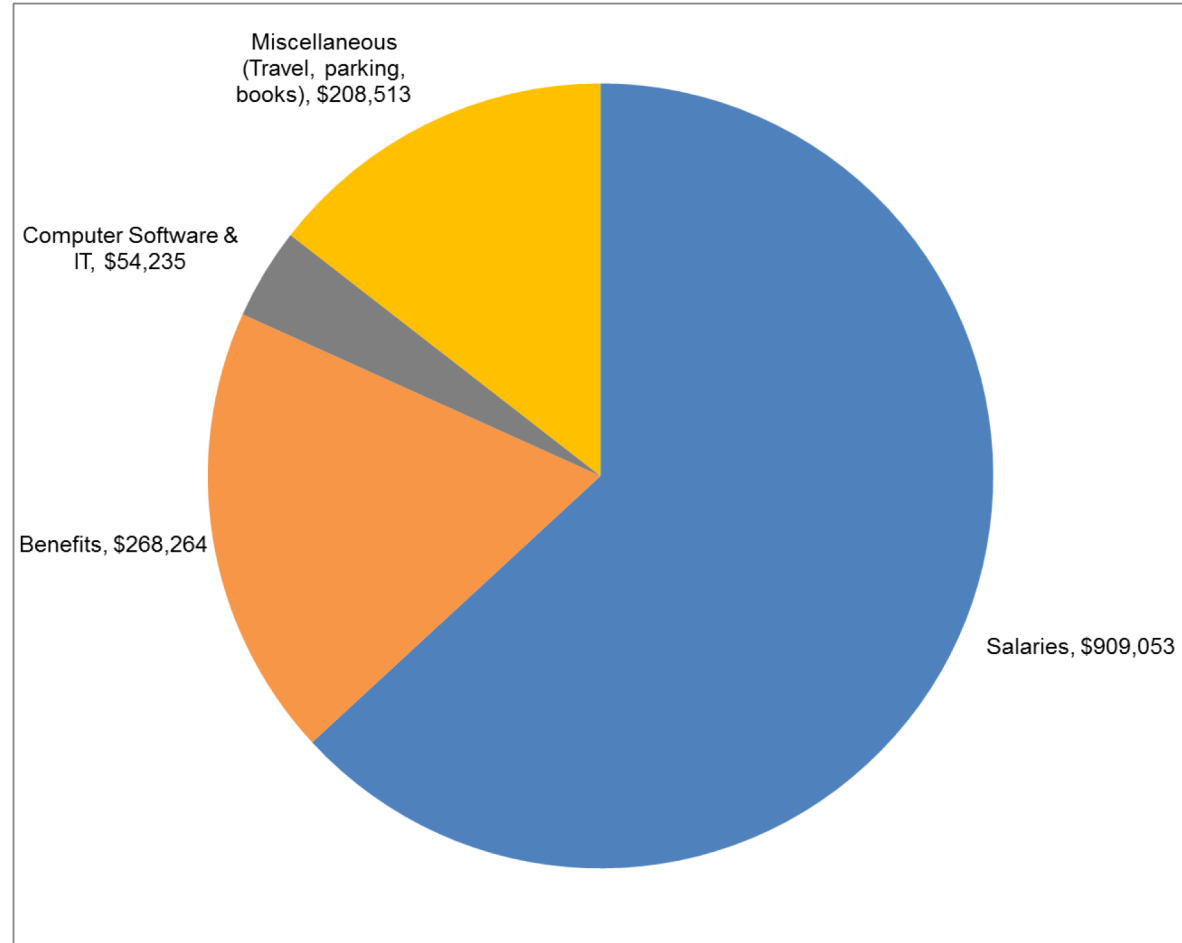
Research Expenditures and F&A



GPS FY 18 Expenditure Details

FY 2019 Sources of Revenue

- Contracts and Grants - \$ 1,343,986.00
- Census RPSP - \$264,800
- F&A Return – \$43,904



Research Center Impacts

- Submitted over 100,000 residential addresses to the Census Bureau as part of our LUCA initiative, which will ultimately result in hundreds of millions of federal dollars allocated to New Mexico over the next decade through a more accurate 2020 Census count.
- As the leading experts on New Mexico demography and traffic crash statistics, we serve as a resource for the state.
 - Principal source for census expertise by the state government.
 - Serves as New Mexico's official liaison to the Census Bureau and related organizations.
 - Serves as U.S. Census Bureau state liaison for decennial census estimates and projections.
 - Provides traffic crash data, analysis, and publications that affect policy regarding traffic safety.
 - NMDOT's federal reporting requirements provided by GPS which ensures state funding.
 - Produces state and county population projections by age and sex used by community, state, and business leaders.
 - Produce small-area population estimates by age, sex, race/ethnicity, which insure accurate population statistics for the Department of Health
- Supports UNM's educational mission by:
 - Providing data for use in research by other institutes on campus.
 - Serving as guest lecturers.
 - Consulting with and providing analytic support to students and faculty members on population topics.
 - Training students on GIS, programming and more.

Return On Investment

- GPS was awarded 14 contracts worth over \$1.7 million in revenue.
- Employed and trained 14 Undergraduate and 2 Graduate students
- Publications
 - 2 Peer-reviewed articles:
 - Miller, J.A., Smith, E.A., Caldwell, L.L., Mathews, C., & Wegner, L. (2018). Boys are victims, too: The influence of perpetrators' age and gender in sexual coercion against boys. *Journal of Interpersonal Violence*. <https://doi.org/10.1177/0886260518775752>
 - Vasan S., Baker J., and Alcantara A. (2018). Use of Kernel Density and Raster Manipulation in GIS to Predict Population in New Mexico Census Tracts, *Review of Economics & Finance*. ISSN: 1923-7529; 1923-8401 @ 2018 Academic Research Centre of Canada.
 - 4 Reports
 - 2017 New Mexico Small Area Population Estimates
 - NM Traffic Crash Annual Report, 2016.
 - NM DWI Report, 2016.
 - Community crash reports for all 33 counties and over 50 municipalities in the state.
 - 2 Other publications
 - Poster: Progress on Drunk Driving Plateaus
 - Jivetti, B., Alcántara, A. N., Miller, J.A., & Rhatigan, R. (2018, September). *Financing Health Care in Kenya: Are Kenyans Willing to Pay Higher Taxes for Better Health Care?*. Proceedings of the 11th Annual Conference Kenya Scholars & Studies Association (KESSA). Atlanta, GA. Available at: <https://kessa.org/wp-content/uploads/2019/03/2018-KESSA-PROCEEDINGS-.pdf>
- Submissions: 5 manuscripts to refereed journals, 4 funding proposals, and 9 conference presentations
- GPS and GPS staff referenced in at least 10 news articles, including by the ABQ Journal, Stateline, North State Journal, The Associated Press, SF New Mexican, Los Alamos Daily Post, Searchlight New Mexico

- Recognized experts in New Mexico demographics: the only entity in the state producing population projections and small-area population estimates.
- Expertise in traffic data analysis and long-term crash statistics.
- Sustainable funding model.
- Successful record of working with federal, state and local agencies.
- Growing network of potential funders, including state agencies, philanthropic organizations and nonprofits.
- Disparate background of staff members that includes expertise in GIS and spatial analysis; communications; programming, and database design, integration and management.

STRENGTHS

- Lack of name and brand recognition.
- Lack of diverse fiscal resources.
- Contract limitations on publishing restricts dissemination of research.
- Lack of funding for peer-reviewed research.

WEAKNESSES

- Census complete count / population task force.
- Continuing to grow marketing component.
- Funding for global health.
- Endowment for GPS.
- Expansion of interdepartmental collaborations.
- Potential research for NMDOT.

OPPORTUNITIES

- Compensation doesn't keep pace with inflation.
- Competitive job market increases competition.
- UNM IT costs are increasing, but service quality and timeliness are decreasing.
- Existence of departmental silos restricts collaborative research.
- Negative perception of applied research.

THREATS



Looking Ahead To 2019

- Prepare for Census 2020 to minimize NM undercount, by supporting and providing insight to complete count committees, developing a NM address frame, and conducting outreach to the Colonias
- Publish state and county population projections
- Host the Second Biennial Population and Public Policy Conference
- Increase research contracts
- New partnerships/relationships
 - Convening of GPS advisory committee
 - Partnership for clearinghouse for neighborhood-level data.
 - Partnership to study effect of government assistance on poverty.
- Other projects
 - Artificial Intelligence Neural Network Application to replace traditional optical character readers.
 - Automation of part of traffic crash annual report.
 - Interactive website for traffic safety data.
- Continue to improve our marketing strategy.
- Submit two book proposals: Population and Public Policy conference proceedings through Springer Publishing Co. as part of the Applied Demography Series and '100 years of Demographic Change in New Mexico' through UNM Press
- Establishment of ABCNM 360 project

Summary

- GPS has been highly successful in achieving its mission by providing trustworthy information to communities and government agencies, and training students and staff.
- GPS is positioned well for the future, with sustainable funding and a strong, fundable research agenda.
- With the 2020 Census just one year away, GPS is a critical resource for ensuring a complete count in New Mexico, and are poised for the challenge. GPS has leveraged the increased exposure into new opportunities and relationships with important stakeholders and potential funders.