

RESEARCH PROPOSAL  
JULY 24, 2008

\*\*\*\*\*

LANE COUNTY 2035 POPULATION FORECASTS

**BACKGROUND**

Lane County (County) has requested that Portland State University's Population Research Center (PRC) prepare long-term population forecasts to the year 2035 for its thirteen cities and unincorporated area. The County seeks to maintain coordinated 20-year population forecasts for the county and its cities as mandated by OAR 660-024-0030. The forecasts are intended to aid the County's long-range planning efforts.

**POPULATION FORECAST METHODOLOGY**

Two primary demographic models will be utilized to produce the population forecasts:

Forecasts for Lane County and the cities of Eugene and Springfield Forecasts for the County and its two largest cities will rely primarily on the Cohort-Component Method<sup>1</sup>. This method predicts future populations as outcomes of life events: births, deaths, and in- and out-migration. It involves estimating key vital rates: fertility, mortality, and net migration. Fertility rates are derived from birth records and female population from Census and PRC annual population estimates; mortality rates are extrapolated from existing life tables, such as those for Oregon. Estimates of migration are based on recent trends from the decennial Census, and on employment and housing trends. Regional and local plans for transportation, housing, and land use also factor into the analysis. Three scenarios of future population changes will be developed to account for different demographic assumptions: a most-likely, or medium growth scenario, a lower growth scenario, and a scenario for higher growth.

Forecasts for the remaining cities and unincorporated area Forecasts for the remaining cities and the unincorporated portion of the County will be based on the medium growth scenario. These forecasts will rely primarily on the Housing Unit Method<sup>2</sup>, which projects future household populations based on recent and expected housing trends. This method involves estimating changes in housing stock for a given area, housing vacancy rates, and average household sizes. Base figures are developed from the decennial Census summary tabulations; post-Census figures are based on analysis of building permits, planned residential development, buildable land, and other land use characteristics. Birth data and data on the composition of age, race, and Hispanic origin of the population are used to evaluate likely changes in average household size. This methodology also requires the adding of the number of persons residing in group quarters

---

<sup>1</sup> For a discussion, see: Smith, S., J. Tayman, and D. A. Swanson. 2001. "State and Local Population Projections: Methodology and Analysis." New York, NY: Kluwer Academic Press, pp. 43-159.

<sup>2</sup> For a discussion, see Siegel, J. and D. A. Swanson (Eds). 2004. "The Methods and Materials of Demography", 2<sup>nd</sup> Edition., New York, NY: Elsevier Academic Press, p. 550.

facilities (such as college dormitories or prisons) to the forecasted household population. The group quarters populations are predicted based on recent trends.

Additional models will be used to provide support or verification of the results produced by the primary models. These include a population trends model based on recent historical changes in population and the shares of the County that individual cities represent, and a simple economic model based on employment projections developed by the Oregon Employment Department.

## **DATA SOURCES**

The forecasts will be based on data either explicitly entered into the forecasting models or used implicitly to make judgments about future trends. These data and their sources include:

- U.S. Census Bureau, 1990 and 2000 Censuses of Population and Housing and the 2005-2006 American Community Survey— age and sex structure, racial and ethnic composition, housing inventory by the type of structure, household composition.
- Center for Health Statistics, Oregon Human Services Department – 1990-2007 births.
- Population Research Center, Portland State University – Annual Population Estimates, 2001-2007.
- Oregon Department of Education, K-12 school enrollment data for school years 1989-1990 to 2007-2008.
- Workforce and Economic Research, Oregon Employment Department – labor trends and employment projections.
- Office of Economic Analysis, Oregon Department of Administrative Services – state and county population forecasts by age and sex, 2000 to 2040.
- Population Division, U.S. Census Bureau – state population projections, 2004-2030.
- City and County Offices – taxlot-level data on developed and vacant land, current and past land uses including type and yearbuilt of existing housing, current and planned future zoning, historic and recent building permit data, locations of new subdivisions, urban growth boundaries, streets, comprehensive plans, previously adopted forecasts, and other relevant data and related planning documents.

## **MAJOR PROJECT TASKS**

Develop a tabular & spatial data set. An integrated data set covering the study area is needed to assess recent-historical and current demographic and socio-economic characteristics of the County, its cities and the unincorporated area, and to establish and analyze population and housing trends.

Summarize key demographic/housing characteristics trends and rates. Key trends and rates, such as changes in migration, fertility, and housing characteristics, will be assessed for the County, each city, and the unincorporated area. These will be described in the final report.

Produce population forecasts for the County, Eugene, and Springfield. Long-term population forecasts by 5-year age groups and sex for years 2010 through 2035 in 5 year intervals will be prepared. Alternate low- and high-growth scenarios for the population forecasts will be developed based on possible changes in population and housing growth in the County and its two largest cities.

Produce population forecasts for ten remaining cities and the unincorporated area. Long-term population forecasts for the years 2010 through 2035 in 5 year intervals will be prepared. These forecasts will rely on the area-wide medium, most-likely growth scenario.

Prepare final report. Results of the population forecasts will be reported. Assumptions about future growth and the methods used in producing the forecasts will be described. Data sources used in the study will be documented. A summary of major demographic trends that have occurred during the 2000-2007 period will also be included.

Present the final report. PRC will prepare and make one presentation to County staff and interested stakeholders at a venue of the County's choice.

## **PROJECT DEADLINE AND DELIVERABLES**

The deadline for delivery of the final report is March 16, 2009. Other deliverables include:

- An initial meeting between PRC and County staff in Eugene to discuss details about the project and the study area.
- Preliminary County and city population forecasts prepared for review by County staff in mid-January, 2009 (sent electronically via email).
- Final county and city population forecasts prepared by mid-February, 2009 for review by County staff.
- Presentation of the results of the study at a public meeting after the report is reviewed by County staff.

An additional meeting may be requested by Lane County staff and scheduled before or after the preliminary population forecasts are developed and reviewed by Lane County staff at an additional cost.

*Lane County will provide professionally maintained spatial and attribute data typical of county or metropolitan service area GIS service providers, primarily data items under the last bullet under "data sources" above. The County will provide assistance with collecting data and information from its jurisdictions as needed to complete the project.*

## **COST**

The fee for the final report and other deliverables is **\$41,400.**

The cost for an additional 2-hour meeting in Eugene would be \$1,485.

## **PROJECT STAFF**

The project team will consist of demographic researchers who collectively have over 30 years of experience in developing population forecasts. Project team members are listed below.

*Ms. Proehl, Demographic Analyst*, has been with PRC since 1998. She manages the Oregon Population Estimates Program and is responsible for preparing the population estimates for the State of Oregon and its counties and cities. Ms. Proehl is a member of the Federal-State Cooperative Program for Population Estimates (FSCPE), which is an organization of U.S. Census Bureau staff and state representatives who work together for the improvement and advancement of methodologies for sub-national population estimates. In addition to her responsibilities as Estimates Program Manager, Ms. Proehl develops population forecasts for school districts and special areas, community needs assessments, and affordable housing market analyses.

*Ken Radin, GIS & Planning Analyst*, has been with PRC since 2004. He is primarily responsible for demographic and land use spatial analysis, and Geographic Information Systems (GIS) utilization. He also develops small-area population estimates, demographic profiles, and integrates area-wide housing and population projections with sub-area projections. Mr. Radin served as co-investigator or principal investigator on several recent studies, including the Tualatin Valley Fire & Rescue District Demographic Profile and 2020 Forecast, the Gresham Parks Demographic & Parks Access Analysis (which included forecasts through 2020), and population estimates for a number of smaller Oregon service districts and cities.

*Charles Rynerson, Demographic Analyst*. Mr. Rynerson has over 20 years of experience as an Applied Demographer at PRC, the San Diego Unified School District, and the San Diego Association of Governments (SANDAG). At PRC between 1984 and 1995 and again since 2006, he has conducted county and special district forecasts, school enrollment forecasts, city and county population estimates, and has planned and coordinated census and survey fieldwork throughout Oregon.

Additional staff may include a research assistant to assist in data collection, mapping, graphical and copyediting support, and/or similar tasks.

For further information contact:  
Risa Proehl (503-725-5103), [proehlr@pdx.edu](mailto:proehlr@pdx.edu)  
Population Research Center  
Portland State University  
POB 751  
Portland, OR 97207