

Oregon Population Forecast Program

Regional Forecast Meeting - March 7, 2018

Preliminary Coordinated Forecasts for
Lake County, its Urban Growth Boundaries (UGBs),
and the Area Outside UGBs

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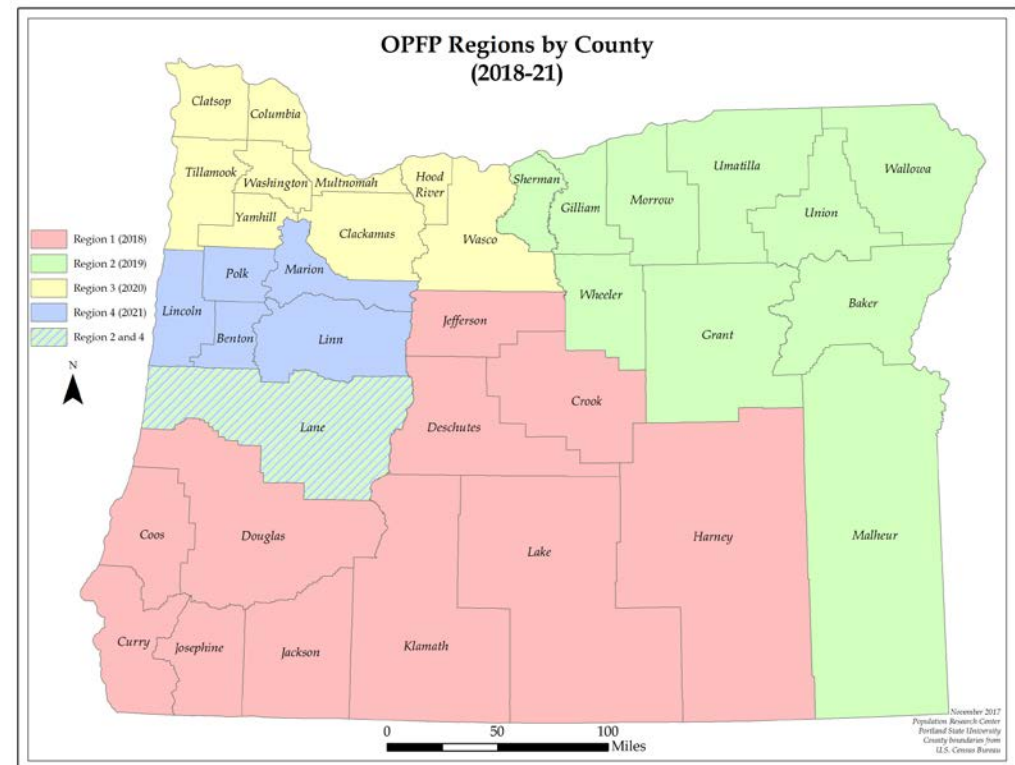
Charles Rynerson,
Research Consultant

Agenda

- Present and discuss preliminary forecast results
 - Proposed Forecasts by March 31st, 2018; To be posted on Oregon Population Forecast Program (OPFP) website:
<http://www.pdx.edu/prc/opfp>
- Explain our assumptions for future change
- Obtain your feedback

2018-2021 Update

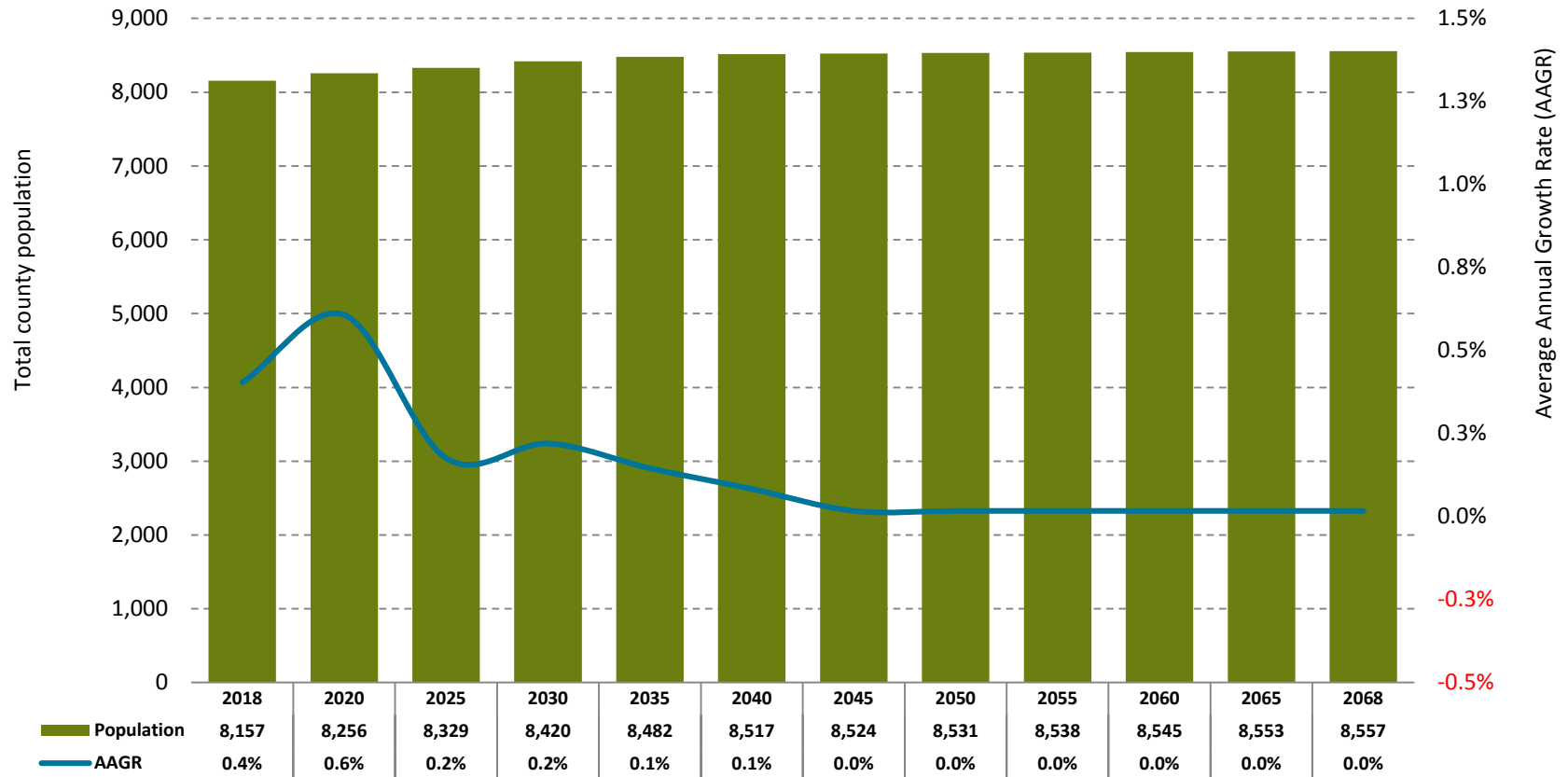
- Modified Methodology (50 Year Period)
- Forecast Methods (2018-43)
 - Cohort-Component and Housing Unit Model
- Modified Method (2043-68):
 - County: AAGR of the last 5 year period (2040-45) is extrapolated out for the remaining 25 years.
 - Sub-areas: Trend the sub-area share of the County for the remaining 25 years.



Assumptions for Lake County

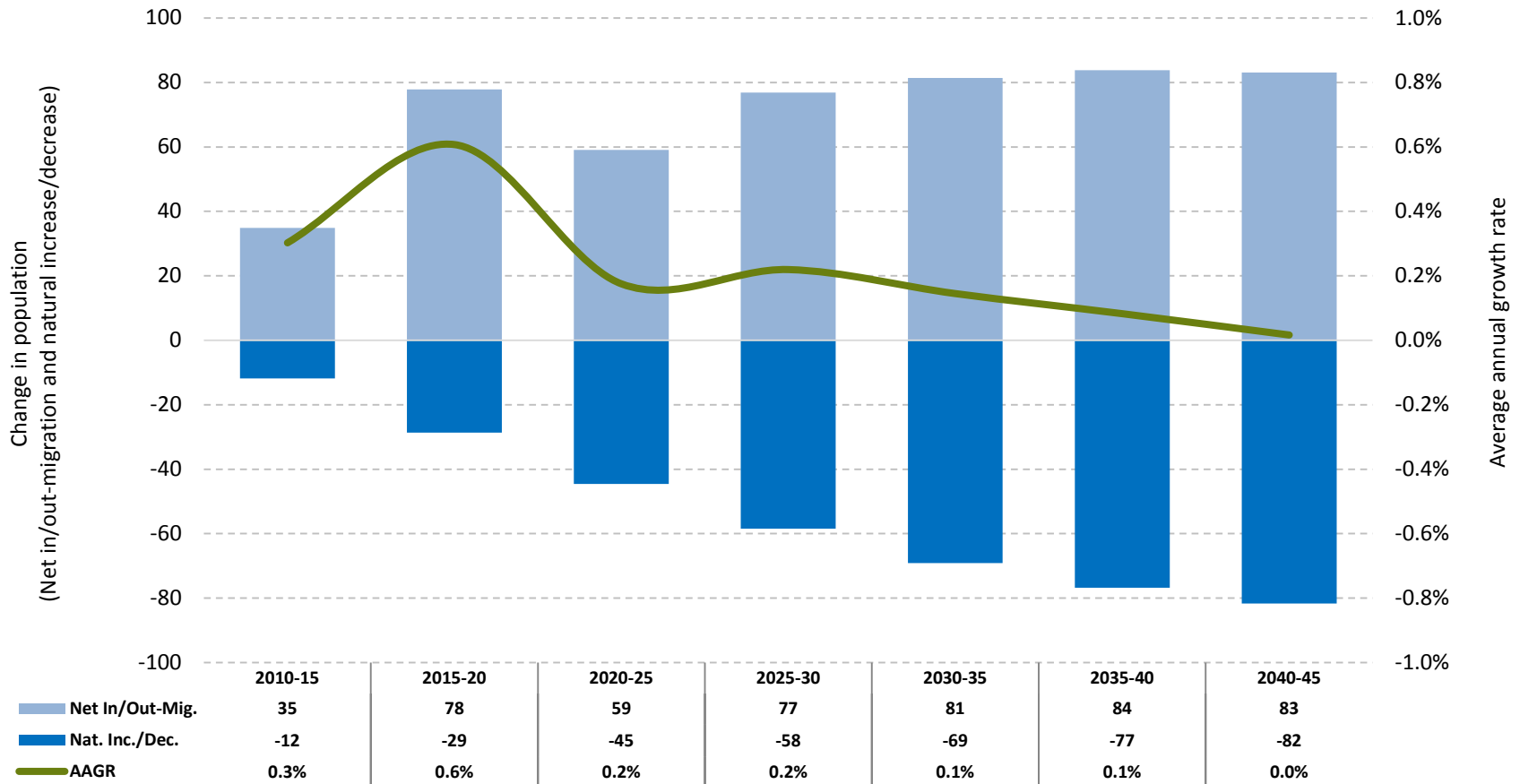
1. As the economy strengthens and Oregon's population ages, we assume net in-migration and housing construction to increase into the 2010-20 decade.
 - a) Despite the recent influx of net in-migration over the last few years, we expect growth to regress during early 2020's as the economy contracts.
 - b) Net in-migration will occur over the entire forecast horizon.
2. We incorporate state and local trends into our assumptions for fertility and mortality.
 - a) As a result of aging Baby Boomers, deaths increase and peak in the 2040's.
 - b) Total fertility rates remain stable throughout the period.
 - c) As a result, the County and its sub-areas will continue to experience a natural decrease at a growing magnitude.
3. Total population is expected to remain stable as natural decrease offsets net in-migration.

Lake County—Total Population by Five-year Intervals (2018-2068)



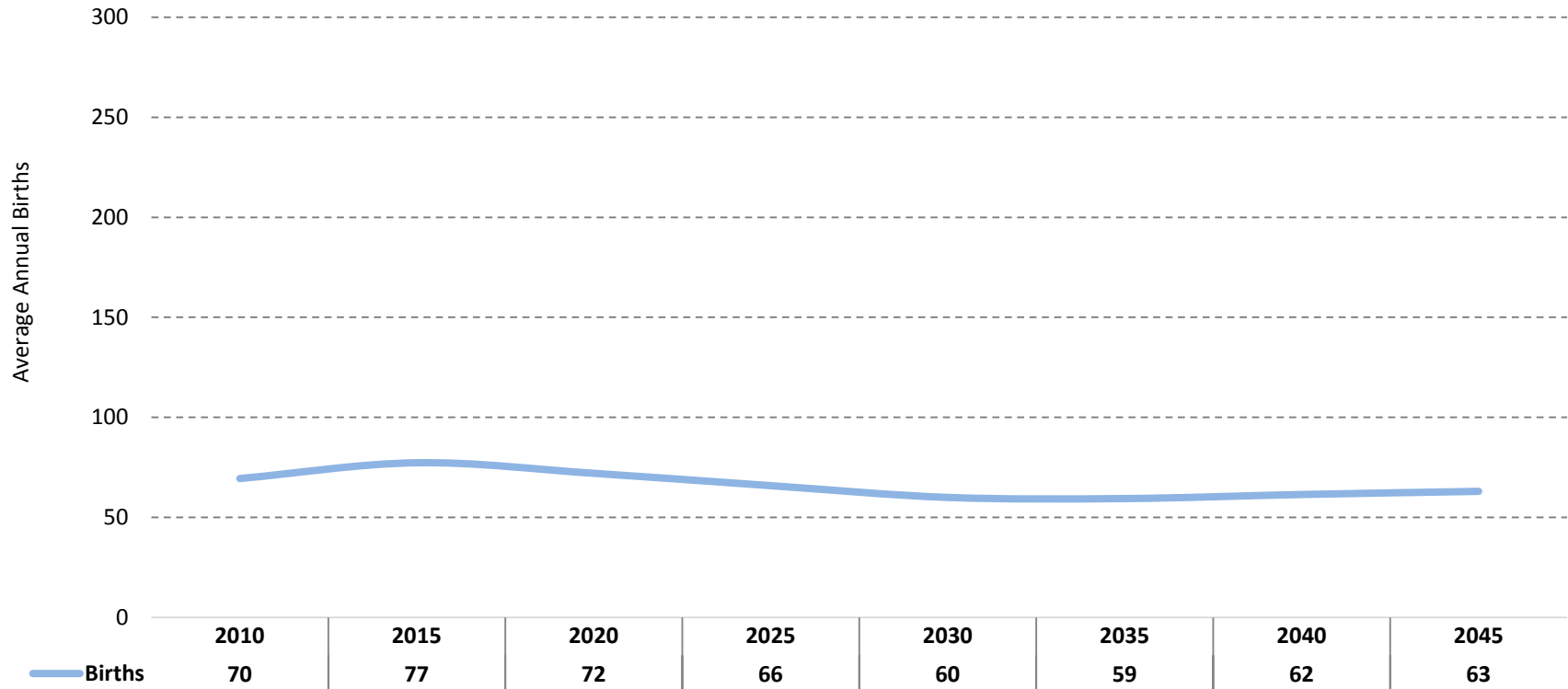
Source: Forecast by Population Research Center (PRC).

Lake County—Components of Population Change by Five-year Intervals (2015-2045)



Source: Forecast by Population Research Center (PRC)

Lake County—Average Annual Births



Sources: Oregon Health Authority, Center for Health Statistics. Calculations and Forecast by Population Research Center (PRC).

Note: The years signify the end of the period for which average annual numbers were calculated. The average annual numbers for "2010" were calculated for the 2000-2010 period, with the remaining years calculated for their preceding five-year periods.

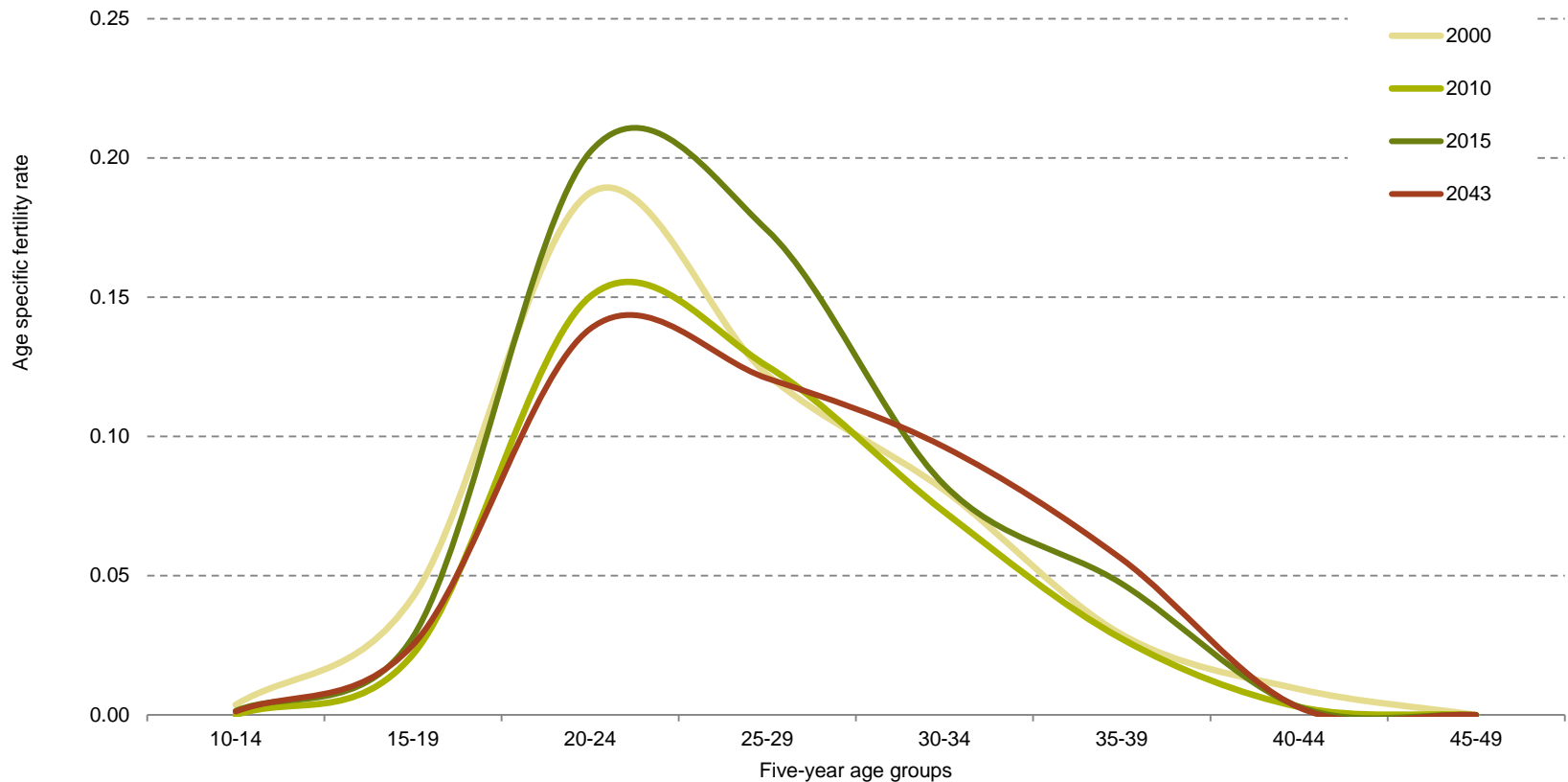
Total Fertility Rate (TFR)

	2000	2010	2015	2043
Lake County	2.37	2.00	2.69	2.20
Oregon	1.98	1.81	1.72	--

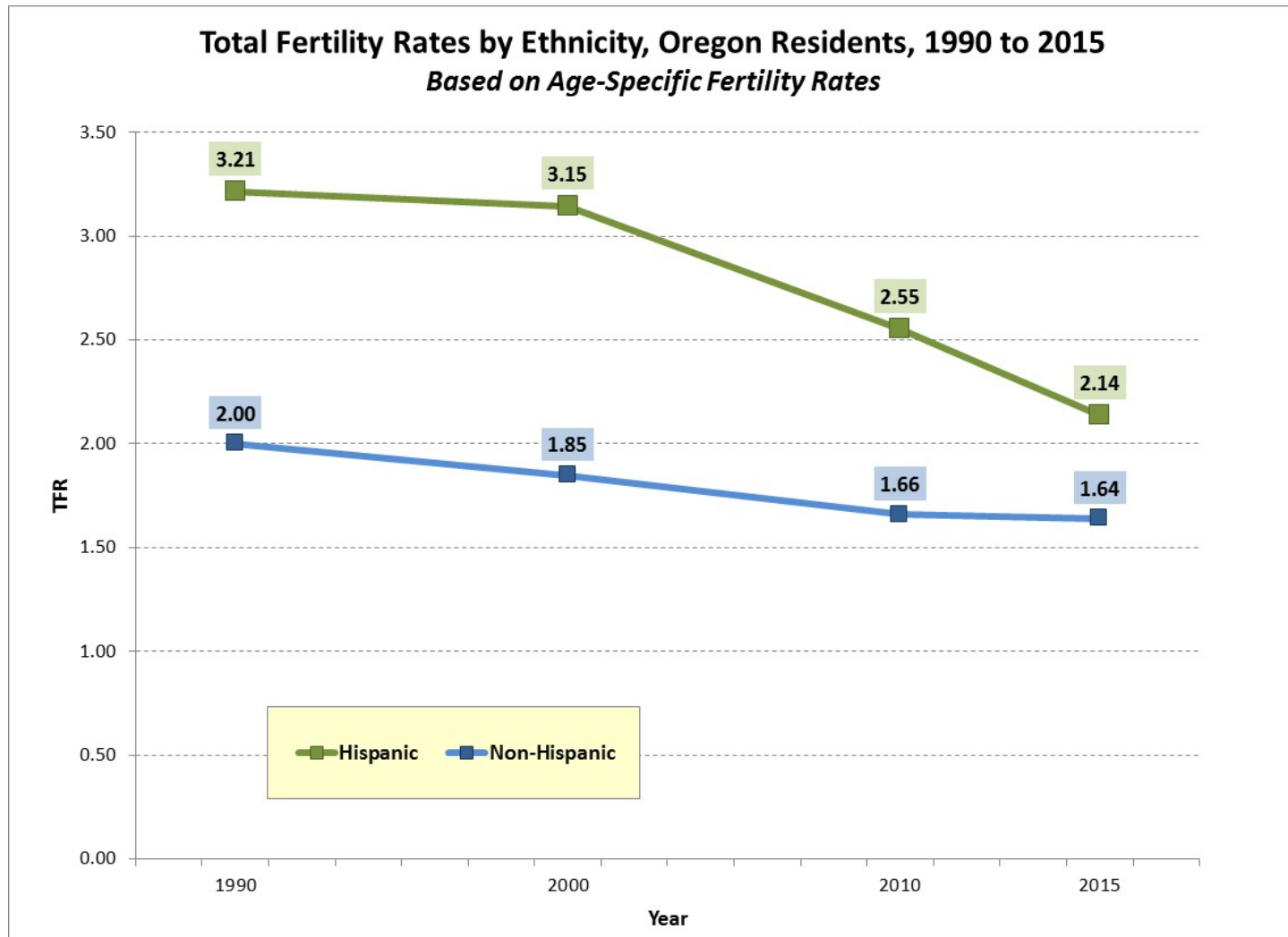
Sources: U.S. Census Bureau, 2000 and 2010 Censuses. PRC Estimates. Oregon Health Authority, Center for Health Statistics. Calculations and Forecast by Population Research Center (PRC).

Note: 2000, 2010 and 2015 are annual TFRs, whereas the TFR for 2043 is for the preceding five-year forecast period. In other words the TFR for 2043 is calculated for the 2040 to 2045 forecast period.

Lake County—Age Specific Fertility Rate (2000, 2010, 2015 and 2043)



Sources: U.S. Census Bureau, 2000 and 2010 Censuses. PRC Estimates. Oregon Health Authority, Center for Health Statistics. Calculations and Forecast by Population Research Center (PRC).

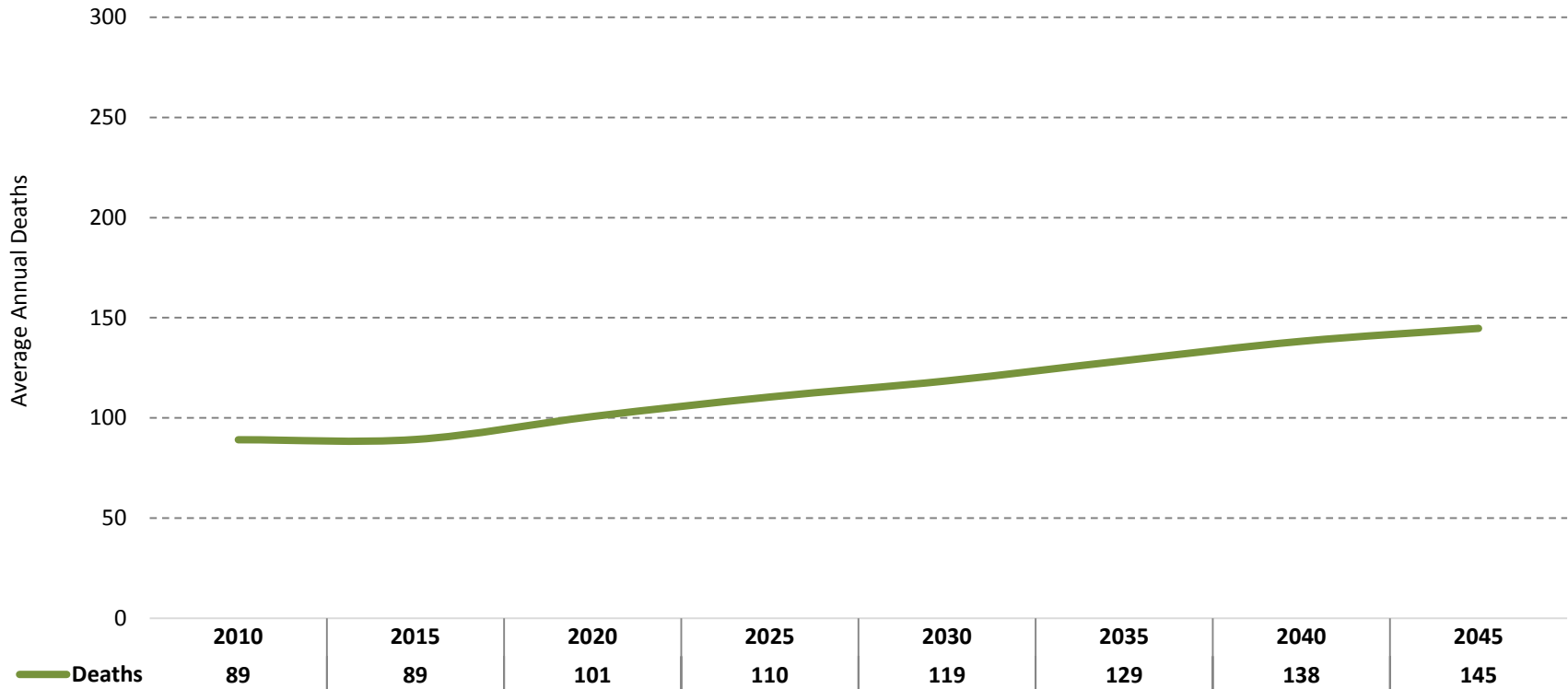


Sources: PEPASR6H-Geography-OregonYear-July 1, 2015 and July 1, 2010

Hispanic Origin-Hispanic: Annual Estimates of the Resident Population by Sex, Age, Race, and Hispanic Origin for the United States and States: April 1, 2010 to July 1, 2015
Population Research Center (PRC): 2015 Population Estimates

These numbers represent **Preliminary** Forecast Results

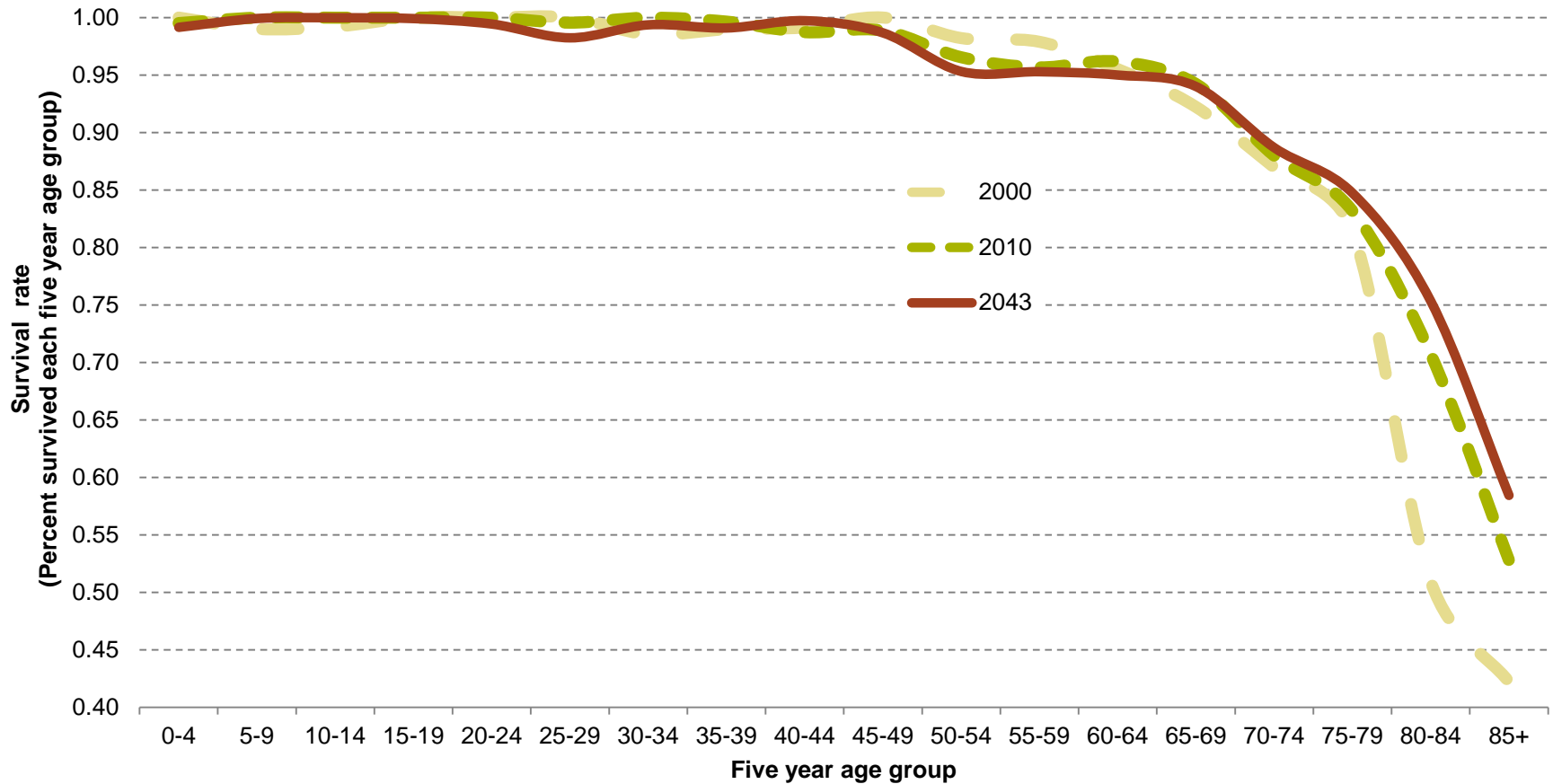
Lake County—Average Annual Deaths



Sources: Oregon Health Authority, Center for Health Statistics. Calculations and Forecast by Population Research Center (PRC).

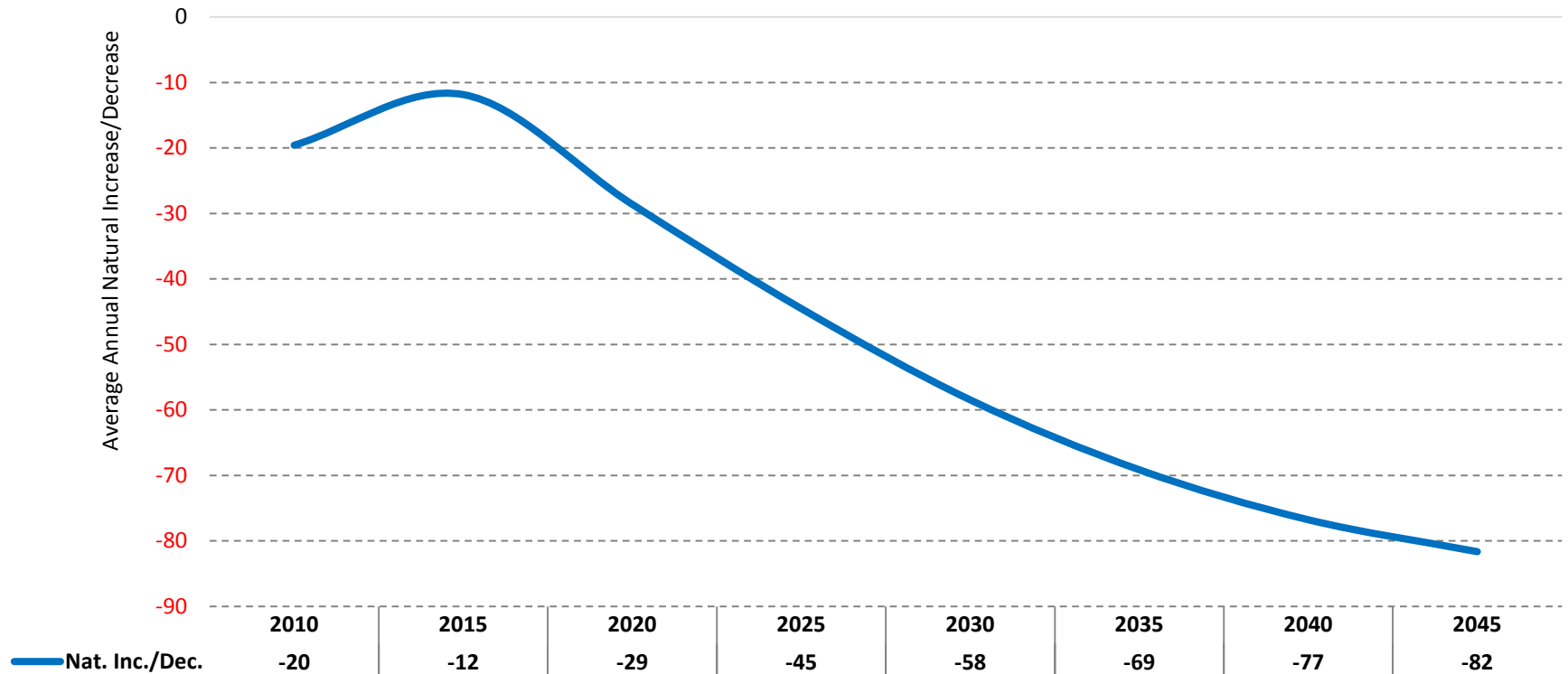
Note: The years signify the end of the period for which average annual numbers were calculated. The average annual numbers for "2010" were calculated for the 2000-2010 period, with the remaining years calculated for their preceding five-year periods.

Lake County – Age Specific Survival Rates



Sources: U.S. Census Bureau, 2000 and 2010 Censuses; Forecast by Population Research Center (PRC).

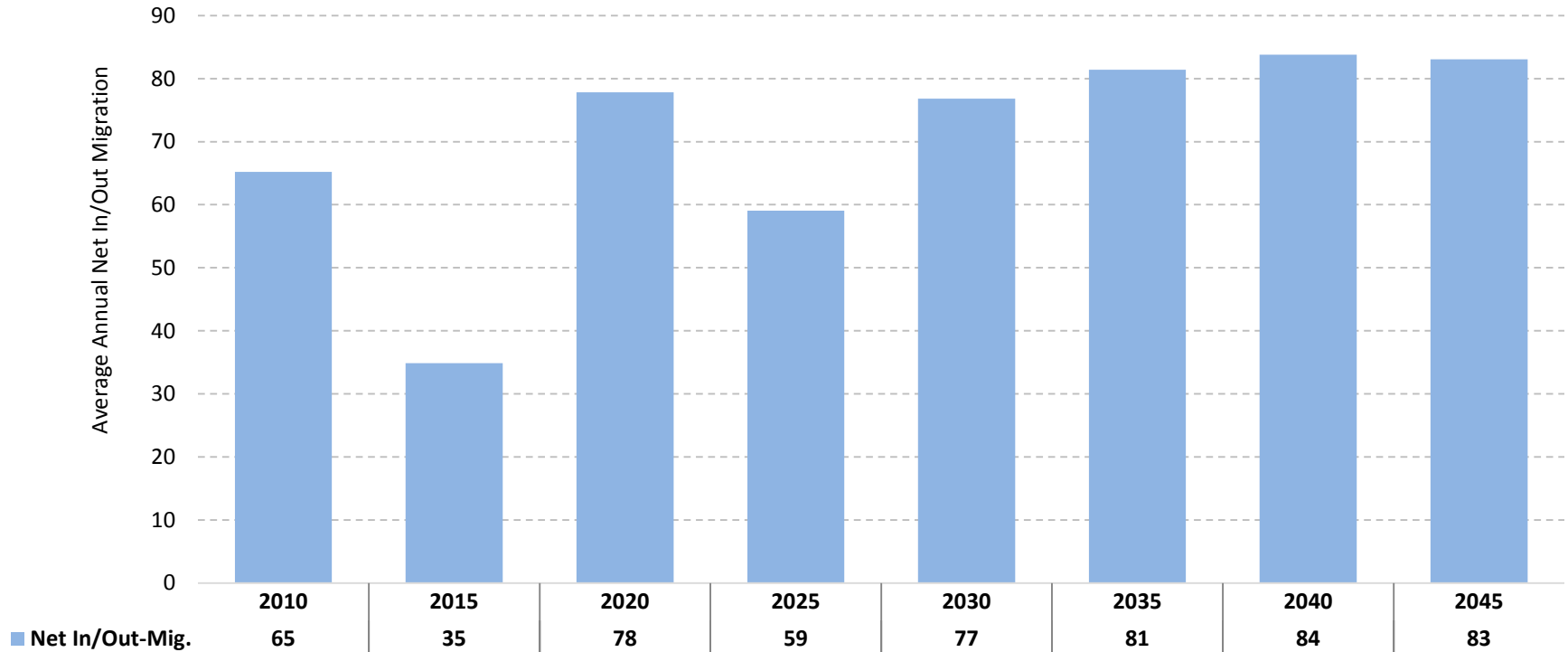
Lake County—Average Annual Natural Increase/Decrease



Sources: Oregon Health Authority, Center for Health Statistics. Calculations and Forecast by Population Research Center (PRC).

Note: The years signify the end of the period for which average annual numbers were calculated. The average annual numbers for "2010" were calculated for the 2000-2010 period, with the remaining years calculated for their preceding five-year periods.

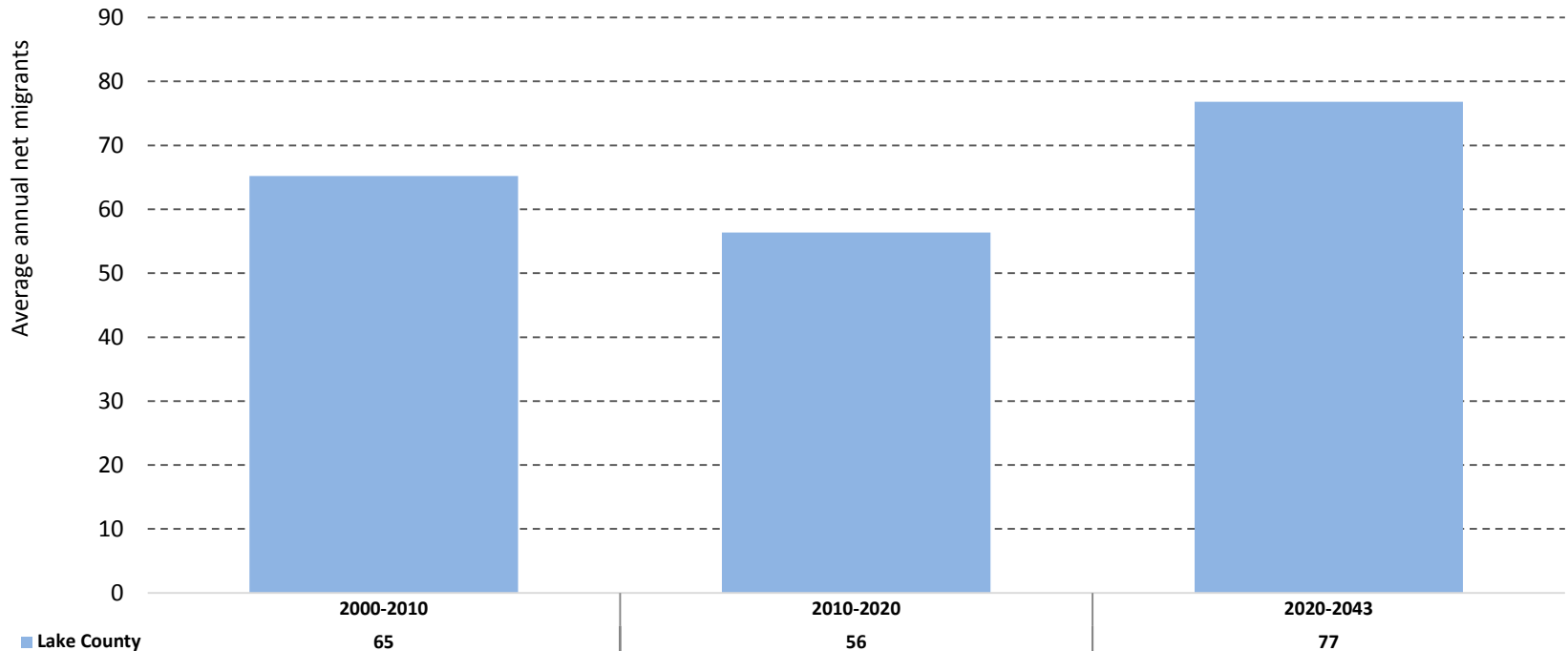
Lake County—Average Annual Net In/Out-Migration



Sources: U.S. Census Bureau, 2000 and 2010 Censuses. Calculations and Forecast by Population Research Center (PRC).

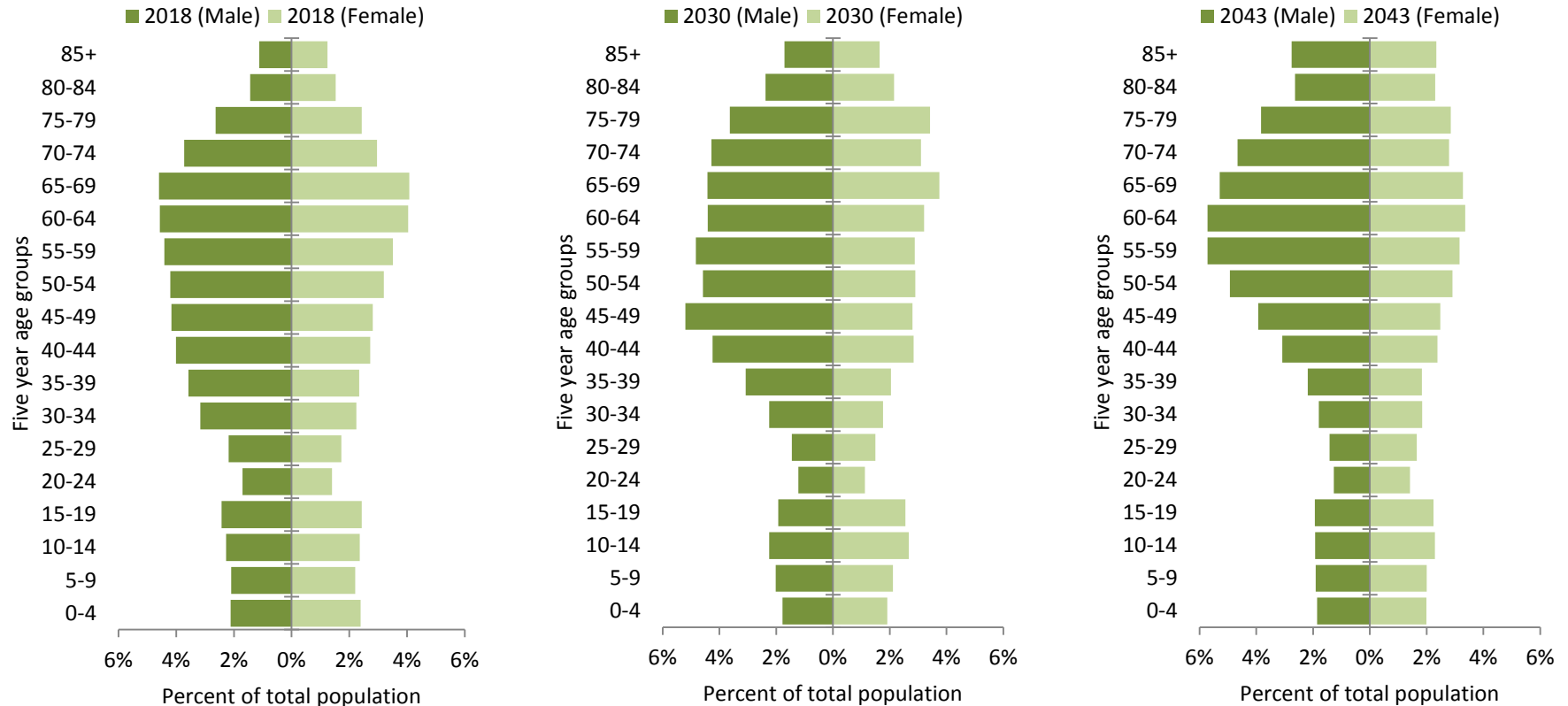
Note: The years signify the end of the period for which average annual numbers were calculated. The average annual numbers for "2010" were calculated for the 2000-2010 period, with the remaining years calculated for their preceding five-year periods.

Lake County—Average Annual Net In/Out-Migration



Sources: U.S. Census Bureau, 2000 and 2010 Censuses. Calculations and Forecast by Population Research Center (PRC).
Note: The average annual numbers were calculated for the 10 year periods (2000-2010 and 2010-2020) and the 23 year period (2020-2043).

Lake County—Age Structure of the Population



Source: Forecast by Population Research Center (PRC)

	Historical			Forecast					
	2000	2010	AAGR (2000-2010)	2018	2043	2068	AAGR (2010-2018)	AAGR (2018-2043)	AAGR (2043-2068)
Lake County	7,434	7,890	0.6%	8,157	8,521	8,557	0.4%	0.2%	0.0%
Lakeview	3,670	3,263	-1.2%	3,132	3,154	2,983	-0.5%	0.0%	-0.2%
Paisley	247	243	-0.2%	261	274	270	0.9%	0.2%	-0.1%
Outside UGBs	3,505	4,389	2.3%	4,764	5,093	5,305	1.0%	0.3%	0.2%

Sources: U.S. Census Bureau, 2000 and 2010 Censuses; Forecast by Population Research Center (PRC).

Note: For simplicity each UGB is referred to by its primary city's name.

County and Sub-Areas—Population and Average Annual Growth Rate (AAGR) (2018, 2043 and 2068)

	2018	2043	2068	AAGR (2018-2043)	AAGR (2043-2068)	Share of County 2018	Share of County 2043	Share of County 2068
Lake County	8,157	8,521	8,557	0.2%	0.0%	--	--	--
Lakeview	3,132	3,154	2,983	0.0%	-0.2%	38.4%	37.0%	34.9%
Paisley	261	274	270	0.2%	-0.1%	3.2%	3.2%	3.2%
Outside UGBs	4,764	5,093	5,305	0.3%	0.2%	58.4%	59.8%	62.0%

Source: Forecast by Population Research Center (PRC)

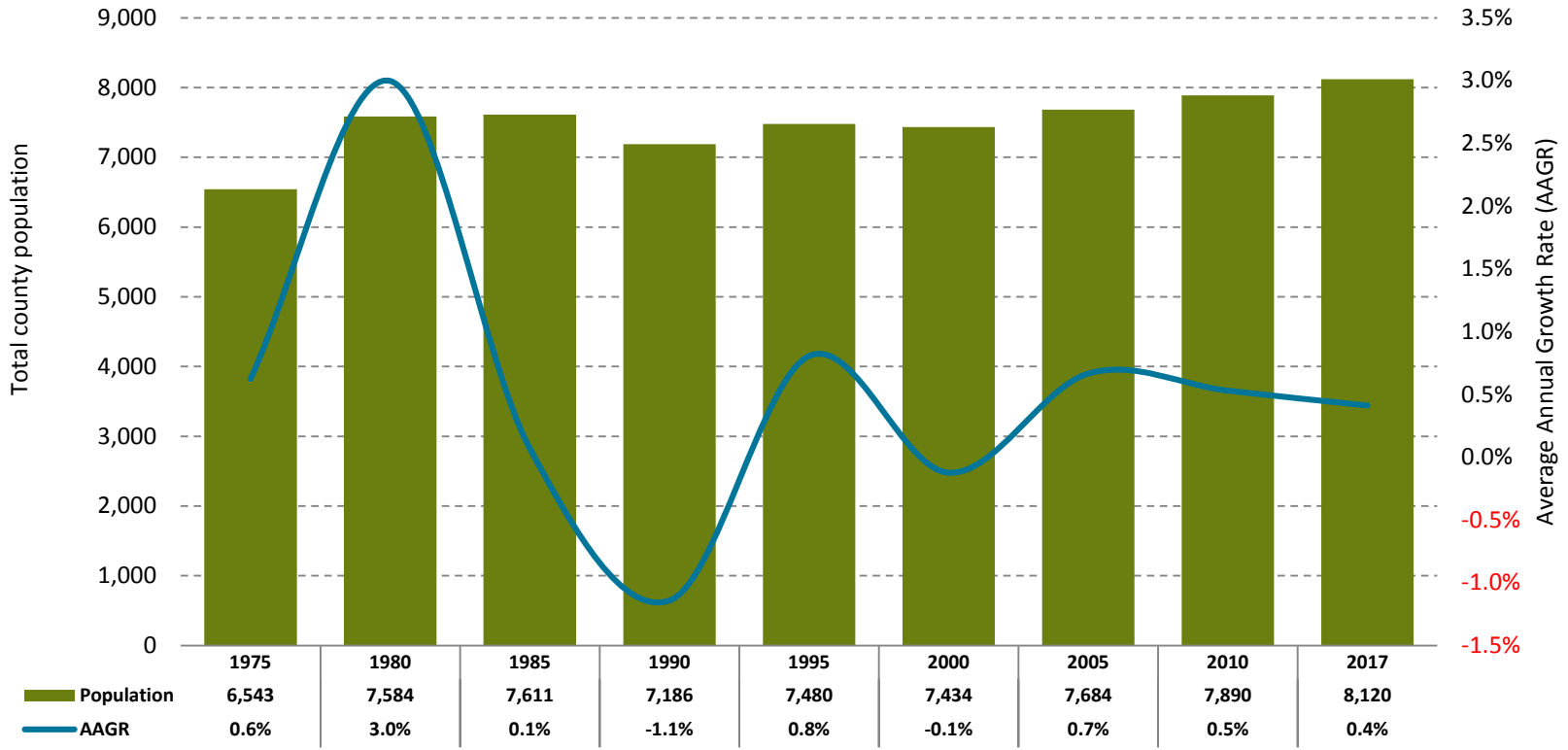
Note: For simplicity each UGB is referred to by its primary city's name.

Local Input and Additional Information

- Questions?
- Discussion time

Additional Historical Trends: Lake County

Lake County—Total Population by Five-year Intervals (1975-2017)



Sources: U.S. Census Bureau, 1980, 1990, 2000, and 2010 Censuses; Population Research Center (PRC), July 1st Annual Estimates 1975, 1985, 1995, 2005 and 2017.

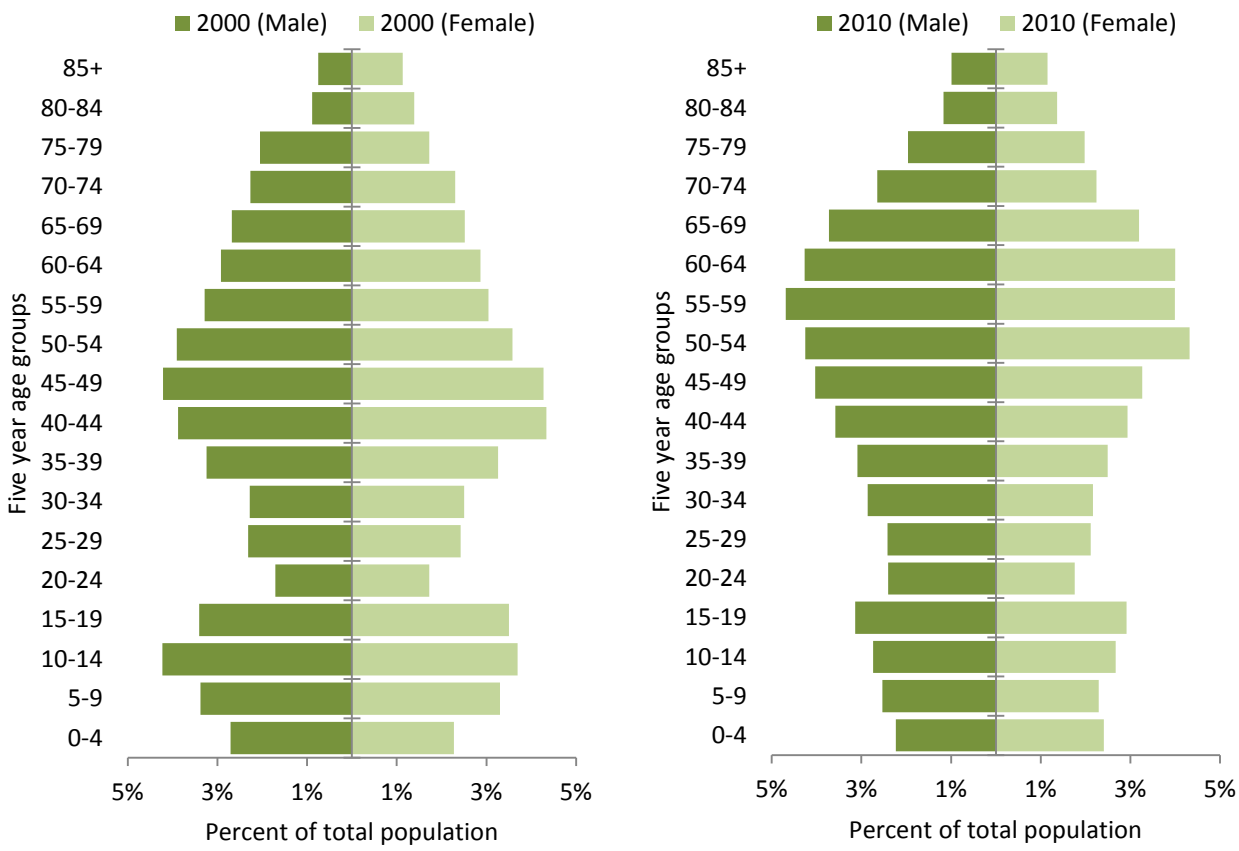
County and Sub-Areas—Population and Average Annual Growth Rate (AAGR) (2000-2010)

	2000	2010	AAGR (2000-2010)	Share of County 2000	Share of County 2010	Change (2000-2010)
Lake County	7,434	7,890	0.6%	99.8%	100.1%	0.2%
Lakeview	3,670	3,263	-1.2%	49.4%	41.4%	-8.0%
Paisley	247	243	-0.2%	3.3%	3.1%	-0.2%
Outside UGBs	3,505	4,389	2.3%	47.1%	55.6%	8.5%

Sources: U.S. Census Bureau, 2000 and 2010 Censuses.

Note: For simplicity each UGB is referred to by its primary city's name.

Lake County—Age Structure of the Population (2000 and 2010)

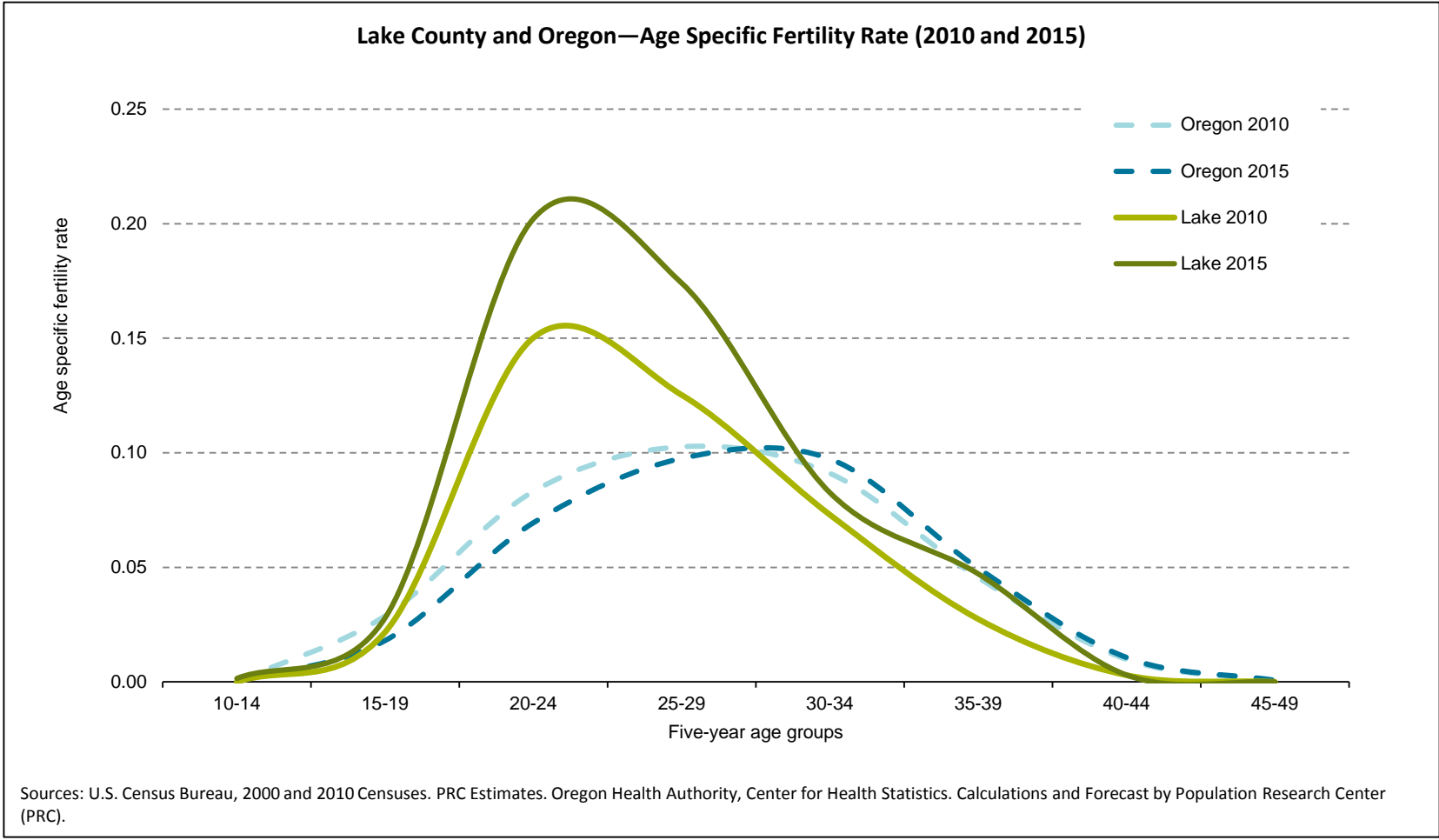


Sources: U.S. Census Bureau, 2000 and 2010 Censuses

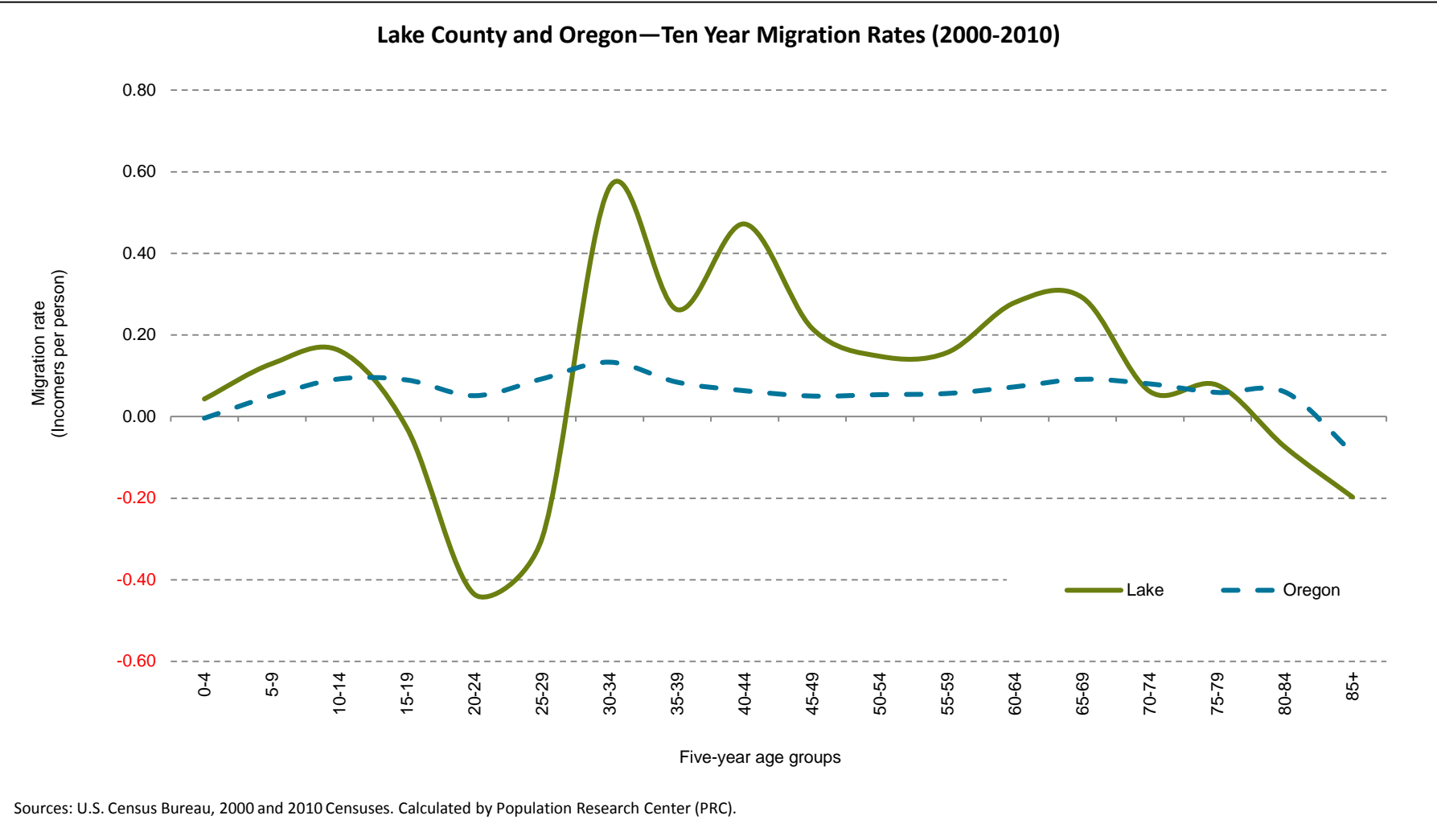
Lake County—Hispanic or Latino and Race (2000 and 2010)

Hispanic or Latino and Race	2000		2010		Absolute Change	Relative Change
	Count	Percentage	Count	Percentage		
<i>Total population</i>	7,422	100.0%	7,895	100.0%	473	6.4%
Hispanic or Latino	404	5.4%	545	6.9%	141	34.9%
Not Hispanic or Latino	7,018	94.6%	7,350	93.1%	332	4.7%
White alone	6,617	89.2%	6,875	87.1%	258	3.9%
Black or African American alone	8	0.1%	37	0.5%	29	362.5%
American Indian and Alaska Native alone	166	2.2%	149	1.9%	-17	-10.2%
Asian alone	53	0.7%	44	0.6%	-9	-17.0%
Native Hawaiian and Other Pacific Islander alone	10	0.1%	5	0.1%	-5	-50.0%
Some Other Race alone	6	0.1%	7	0.1%	1	16.7%
Two or More Races	158	2.1%	233	3.0%	75	47.5%

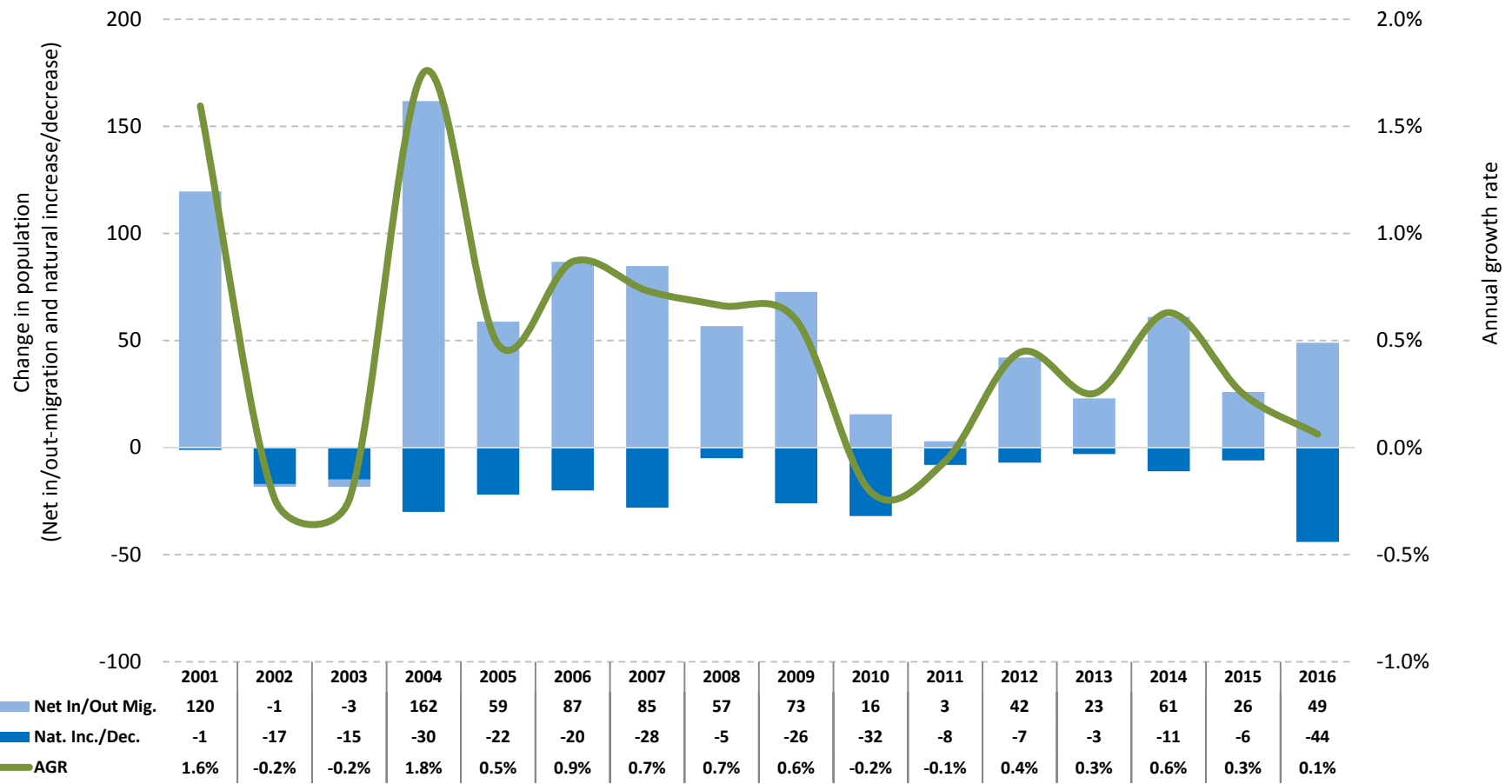
Sources: U.S. Census Bureau, 2000 and 2010 Censuses.



Total Fertility Rate (TFR)		
	2000	2010
Lake County	2.37	2.00
Oregon	1.98	1.81



Lake County—Components of Population Change (2001-2016)



Sources: Population Research Center, July 1st Annual Estimates 2001-2016 Oregon Health Authority, Center for Health Statistics. Calculated by Population Research Center (PRC).

Lake County and Sub-Areas—Total Housing Units (2000 and 2010)

	2000	2010	AAGR (2000-2010)	Share of County 2000	Share of County 2010	Change (2000-2010)
<i>Lake County</i>	3,999	4,439	1.0%	100.0%	100.0%	0.0%
Lakeview	1,780	1,717	-0.4%	44.5%	38.7%	-5.8%
Paisley	176	156	-1.2%	4.4%	3.5%	-0.9%
Outside UGBs	2,043	2,566	2.3%	51.1%	57.8%	6.7%

Sources: U.S. Census Bureau, 2000 and 2010 Censuses

¹ For simplicity each UGB is referred to by its primary city's name.

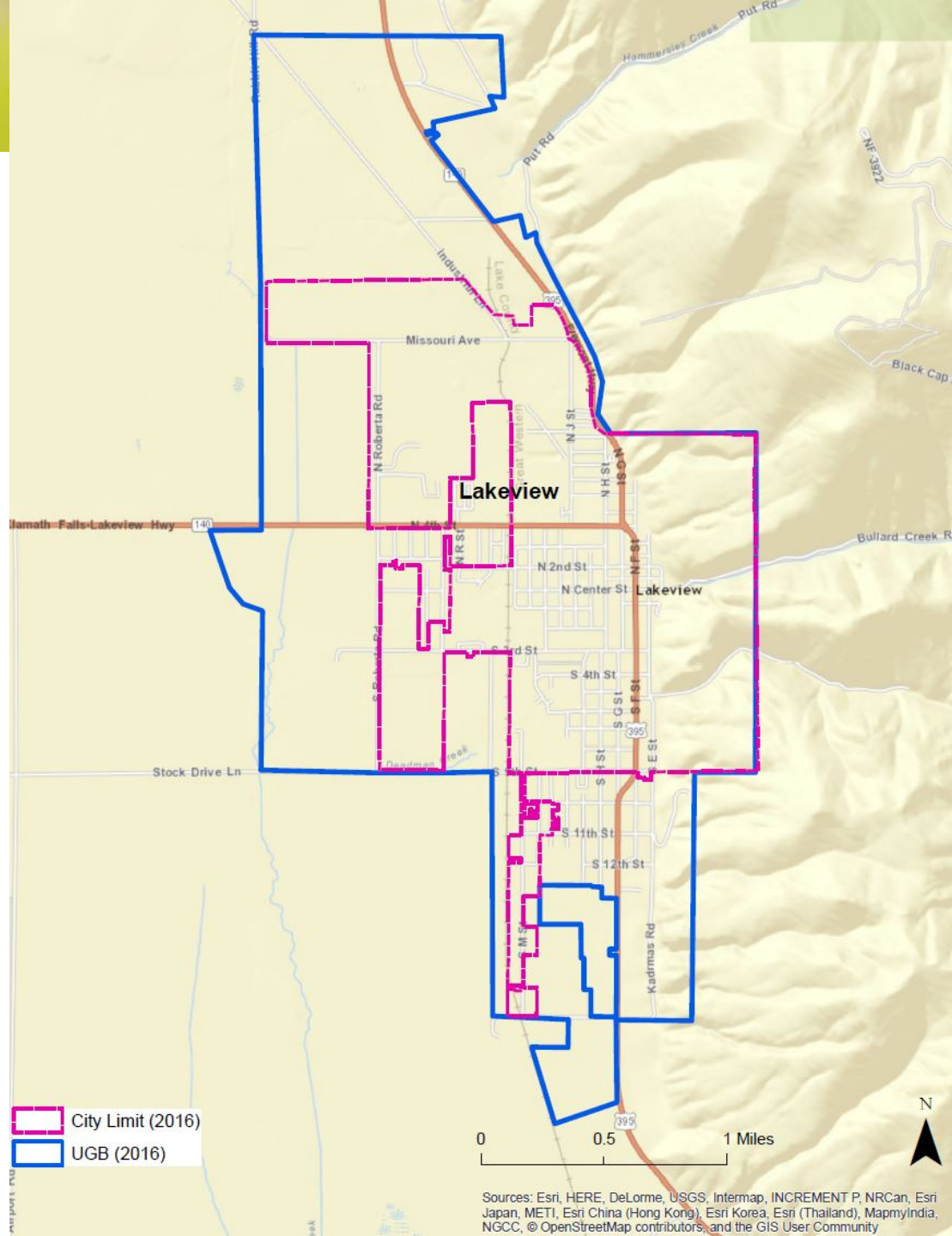
Lake County and Sub-Areas—Persons Per Household (PPH) and Occupancy Rate (2000 and 2010)

	Persons Per Household (PPH)			Occupancy Rate		
	2000	2010	Change 2000-2010	2000	2010	Change 2000-2010
Lake County	2.4	2.2	-7.8%	77.12%	76.10%	-1.0%
Lakeview	2.4	2.2	-8.2%	85.73%	85.32%	-0.4%
Paisley	2.4	1.9	-18.1%	65.34%	80.13%	14.8%
Outside UGBs	2.1	2.2	3.8%	70.63%	69.68%	-1.0%

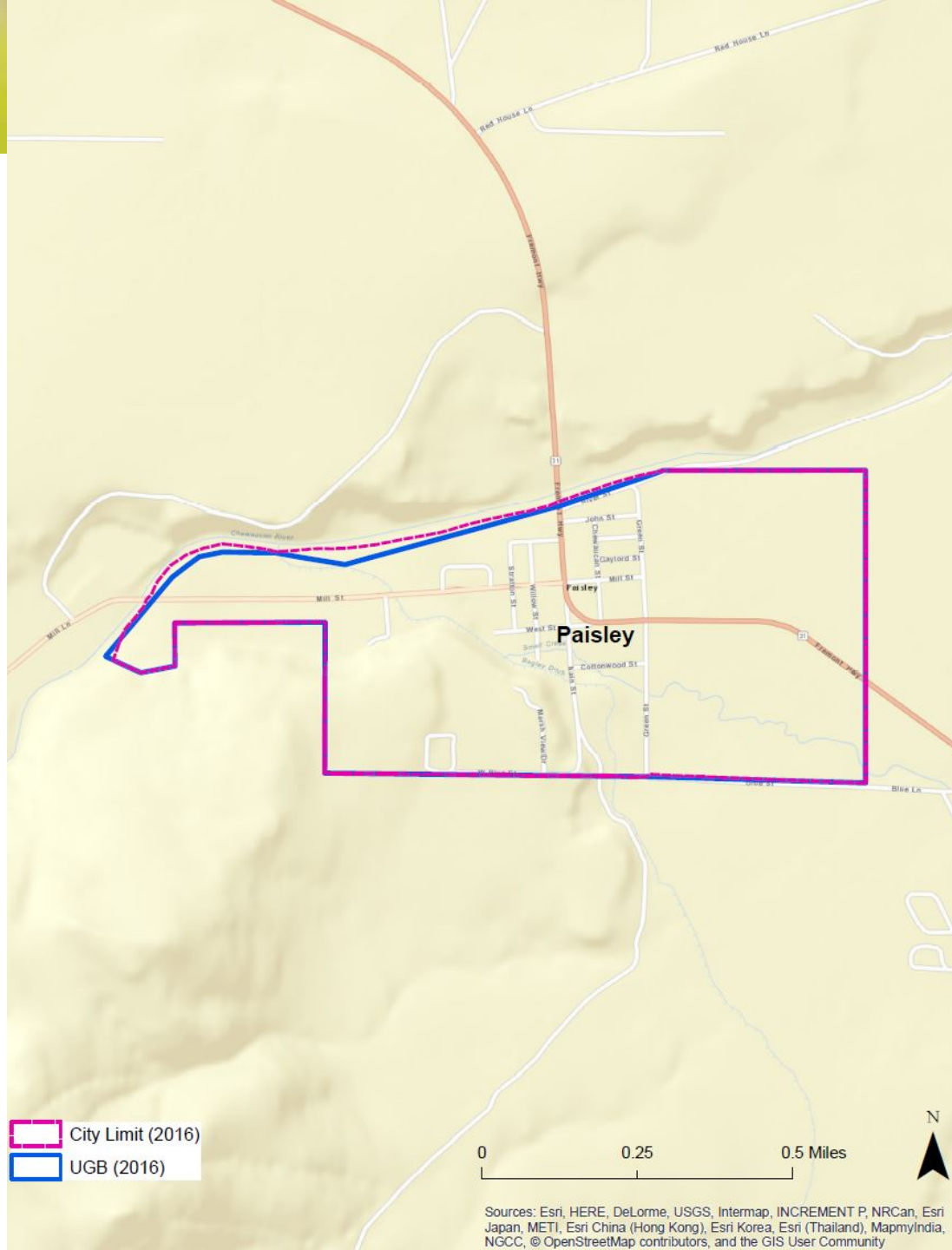
Sources: U.S. Census Bureau, 2000 and 2010 Censuses. Calculated by Population Research Center (PRC)

For simplicity each UGB is referred to by its primary city's name.

Lake County UGBs



Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community



- City Limit (2016)
- UGB (2016)

0 0.25 0.5 Miles



Sources: Esri, HERE, DeLorme, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), MapmyIndia, NGCC, © OpenStreetMap contributors, and the GIS User Community