

Oregon Population Forecast Program

Regional Forecast Meeting - March 6, 2018

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

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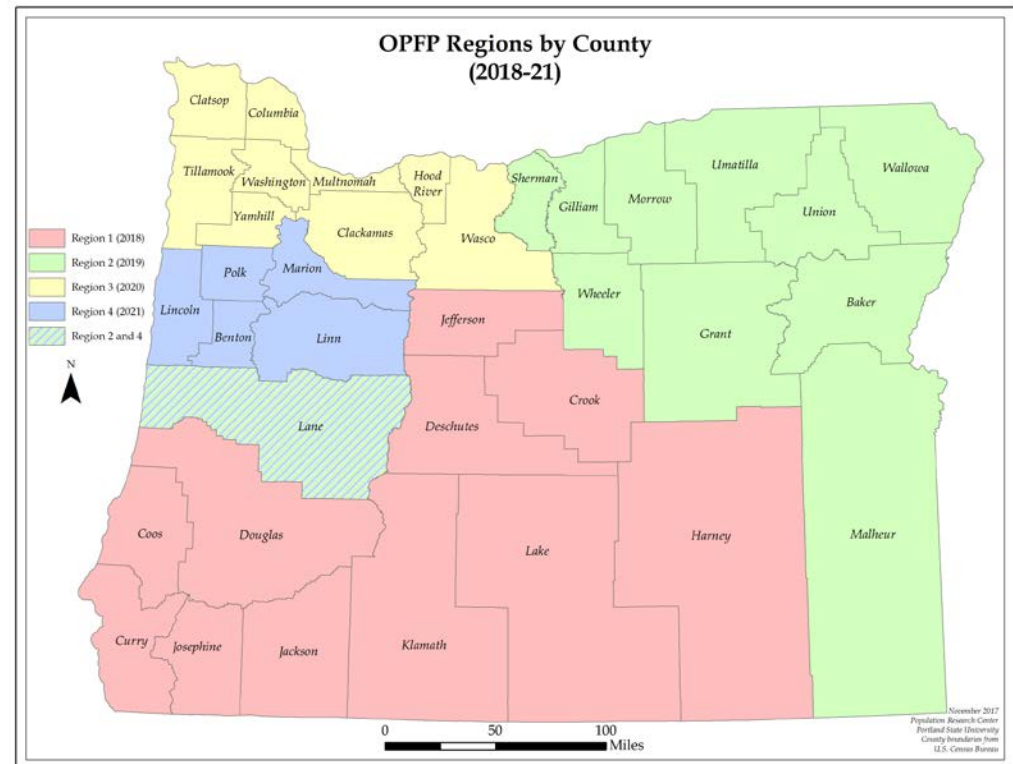
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Agenda

- 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

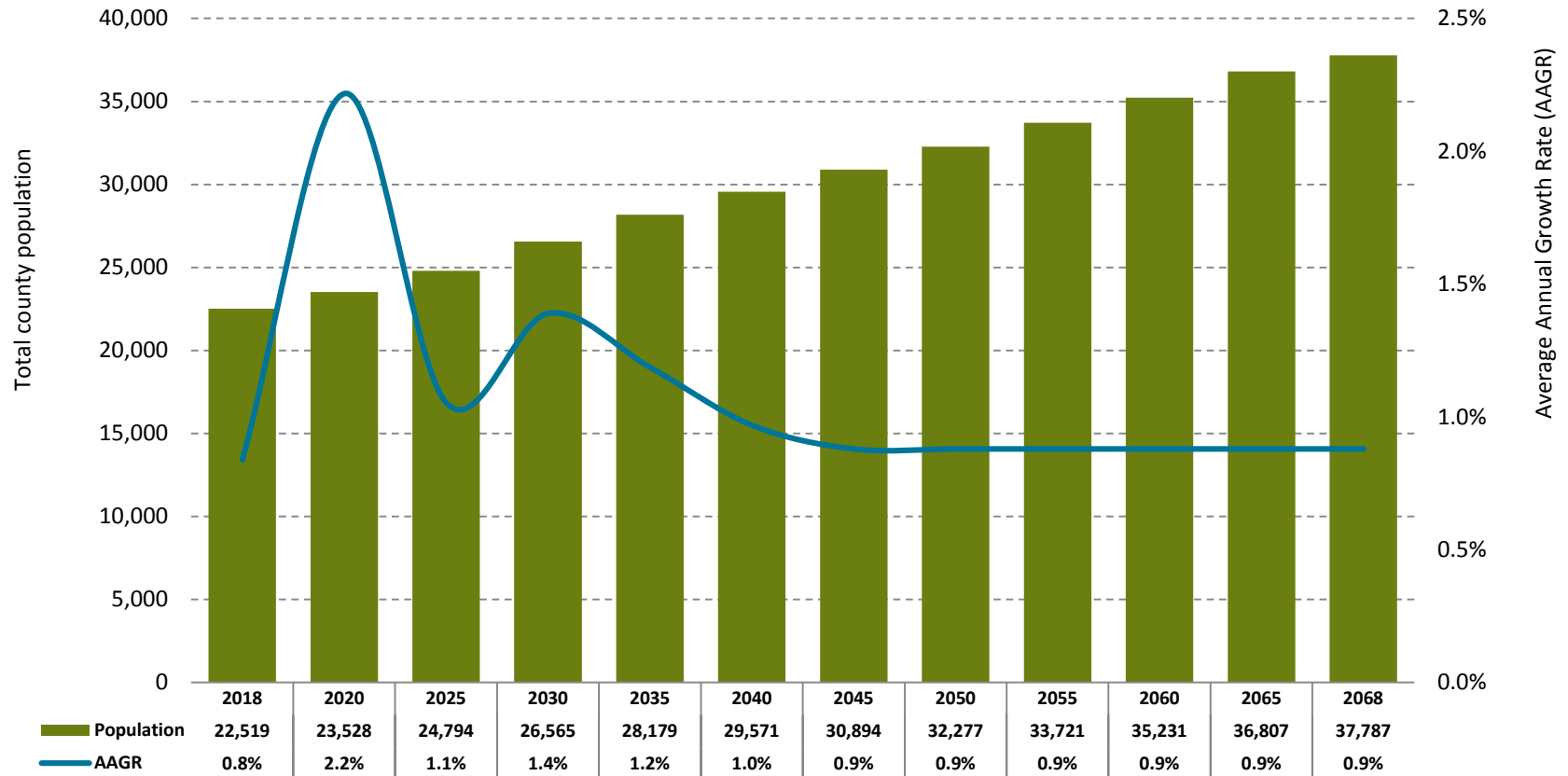
- Modified Methodology (50 Year Period)
- Forecast Methods (2018-43)
 - Cohort-Component and Housing Unit Model
- Modified Method (2043-68):
 - County: AAGR of the last 5 year period (2040-45) is extrapolated out for the remaining 25 years.
 - Sub-areas: Trend the sub-area share of the County for the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



Assumptions for Crook County and Larger Sub-Area Forecasts

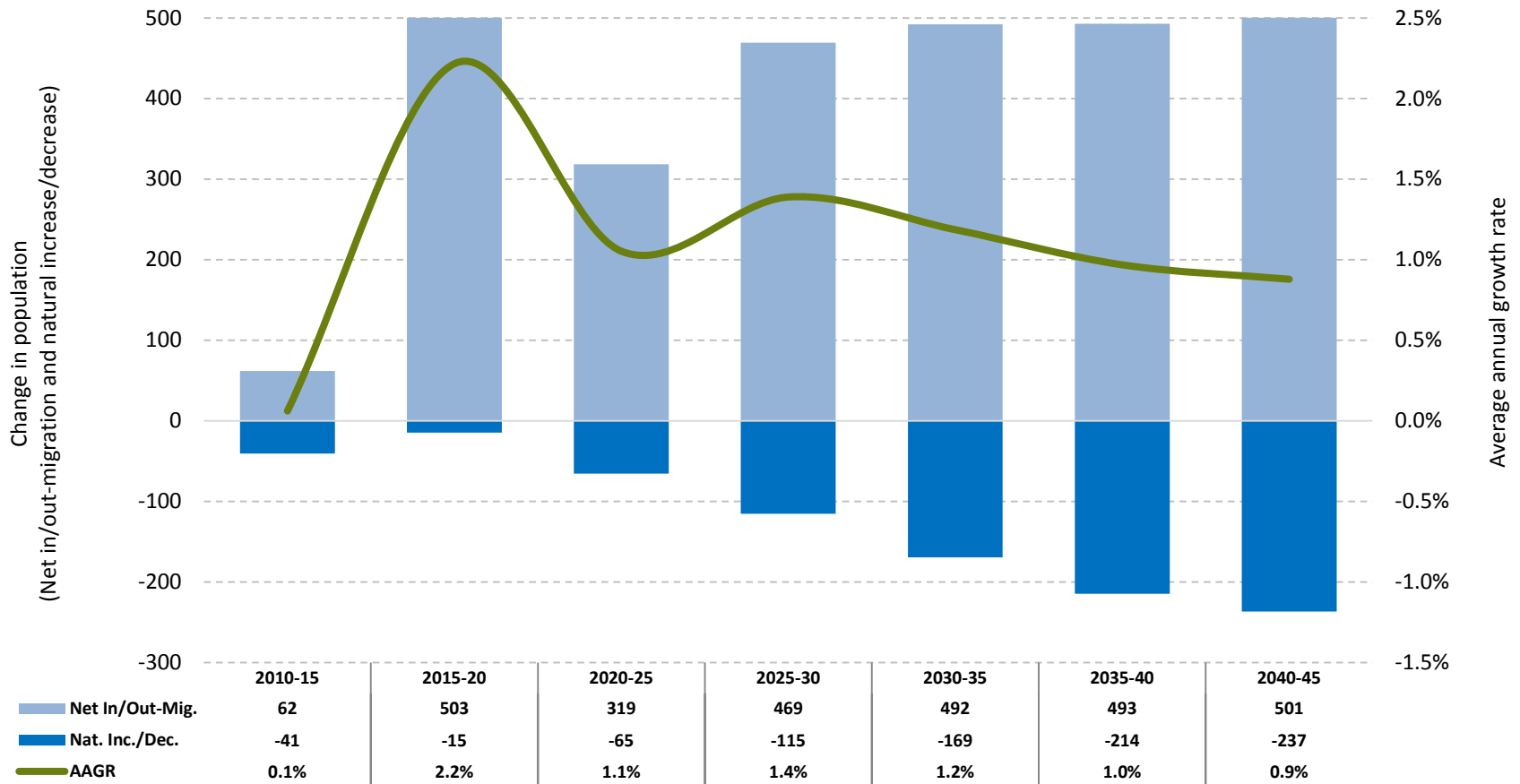
1. As the economy strengthens and Oregon's population ages, we assume net in-migration and housing construction to increase into the 2010-20 decade.
 - a) Despite the recent influx of net in-migration over the last few years, we expect growth to regress during early 2020's as the economy contracts.
 - 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 decline throughout the forecast period.
 - c) As a result, we expect the County will experience a growing natural decrease.
3. Population growth is expected to slow over time as natural decrease magnifies and net in-migration tapers.

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



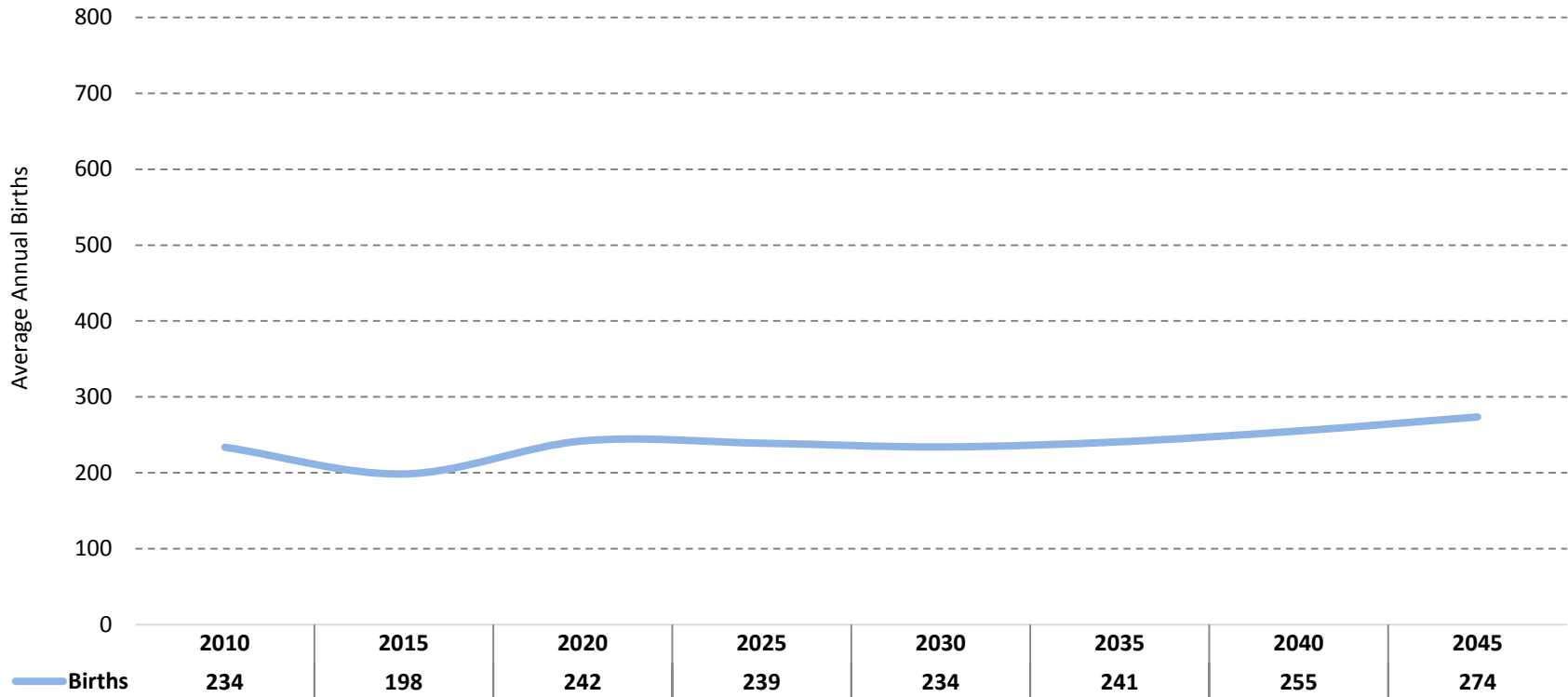
Source: Forecast by Population Research Center (PRC).

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



Source: Forecast by Population Research Center (PRC)

Crook 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.

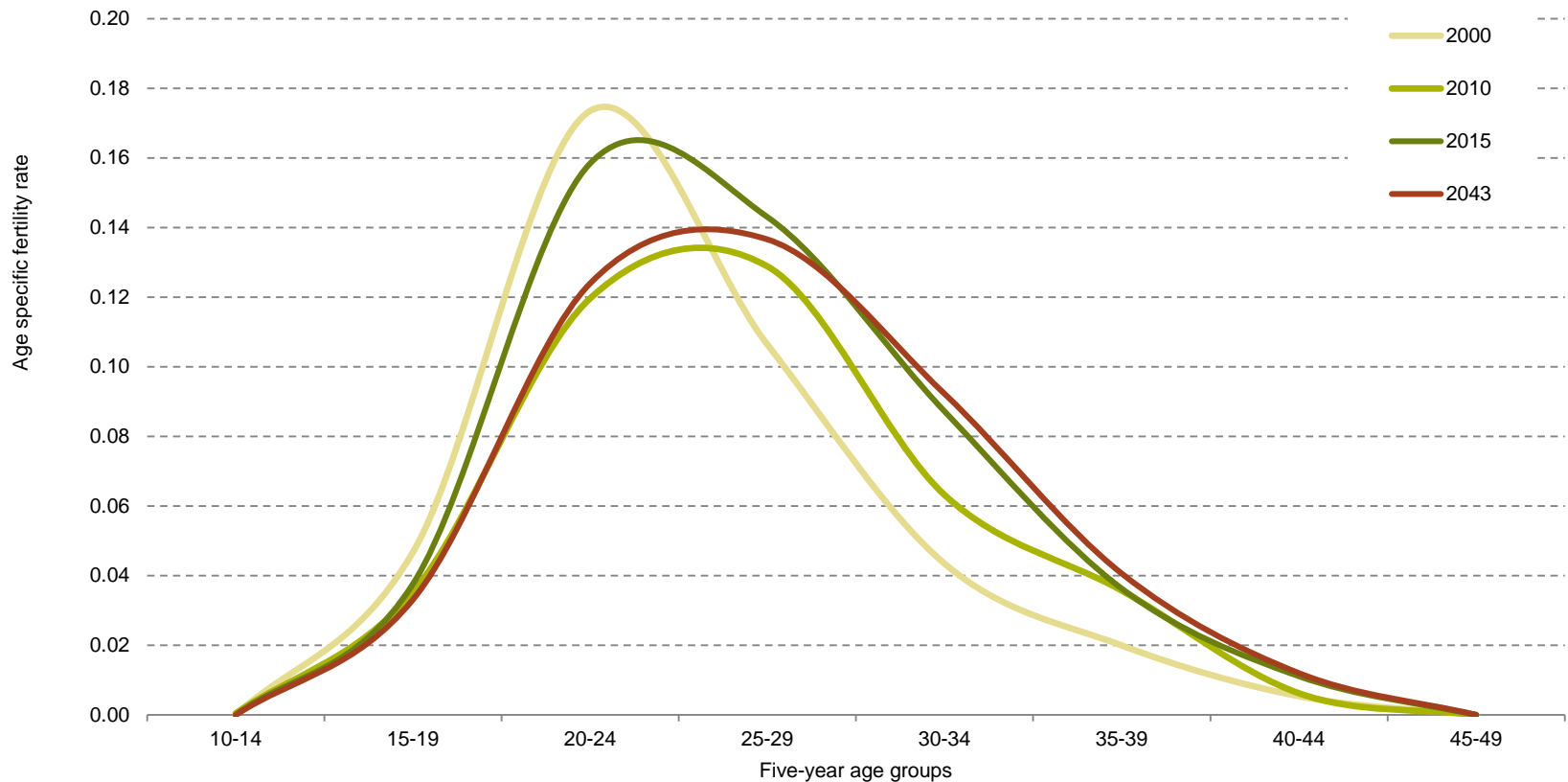
Total Fertility Rate (TFR)

	2000	2010	2015	2043
Crook County	1.98	1.95	2.37	2.19
Oregon	1.98	1.81	1.72	--

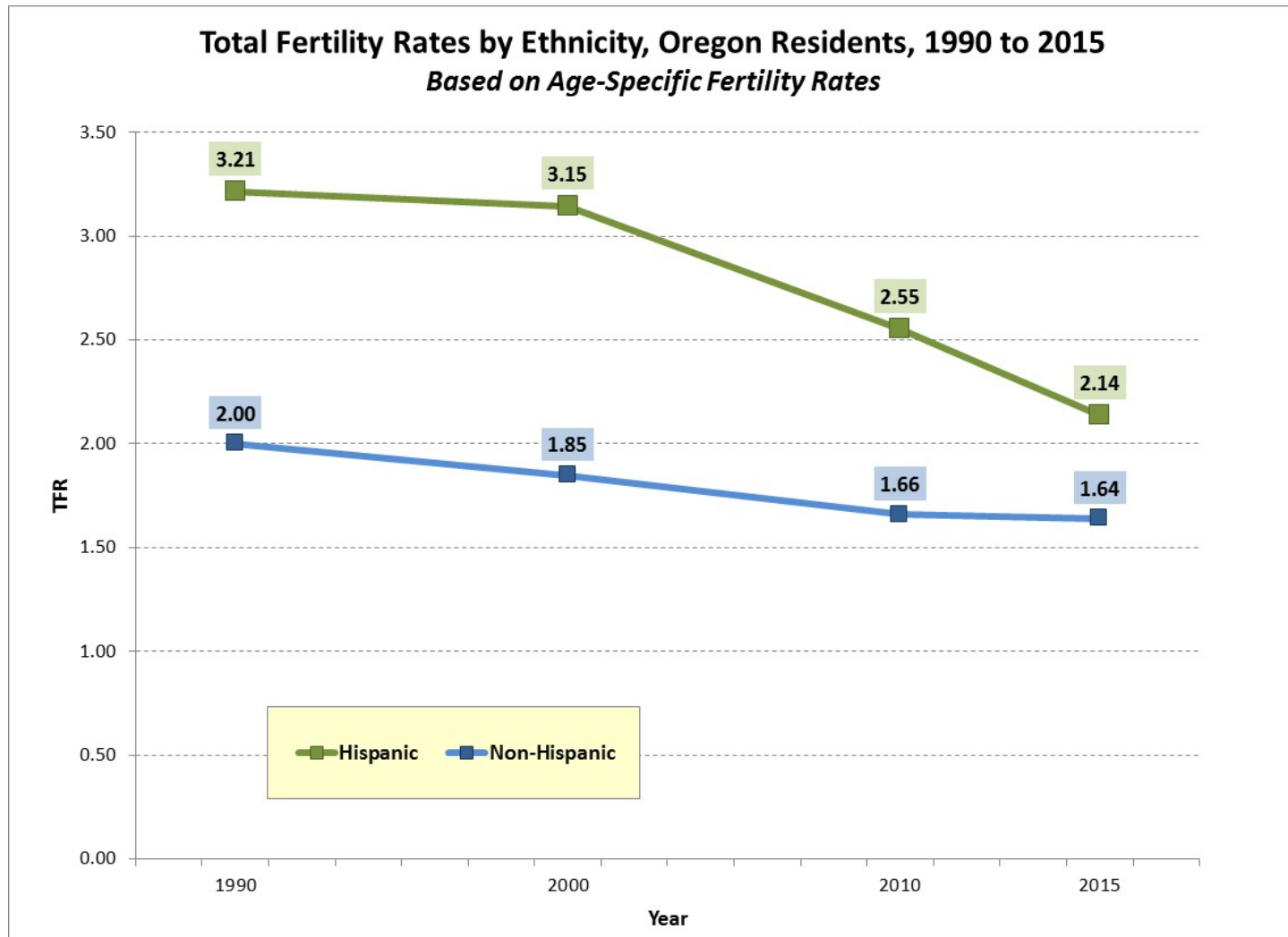
Sources: U.S. Census Bureau, 2000 and 2010 Censuses. PRC Estimates. Oregon Health Authority, Center for Health Statistics. Calculations and Forecast by Population Research Center (PRC).

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.

Crook 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).

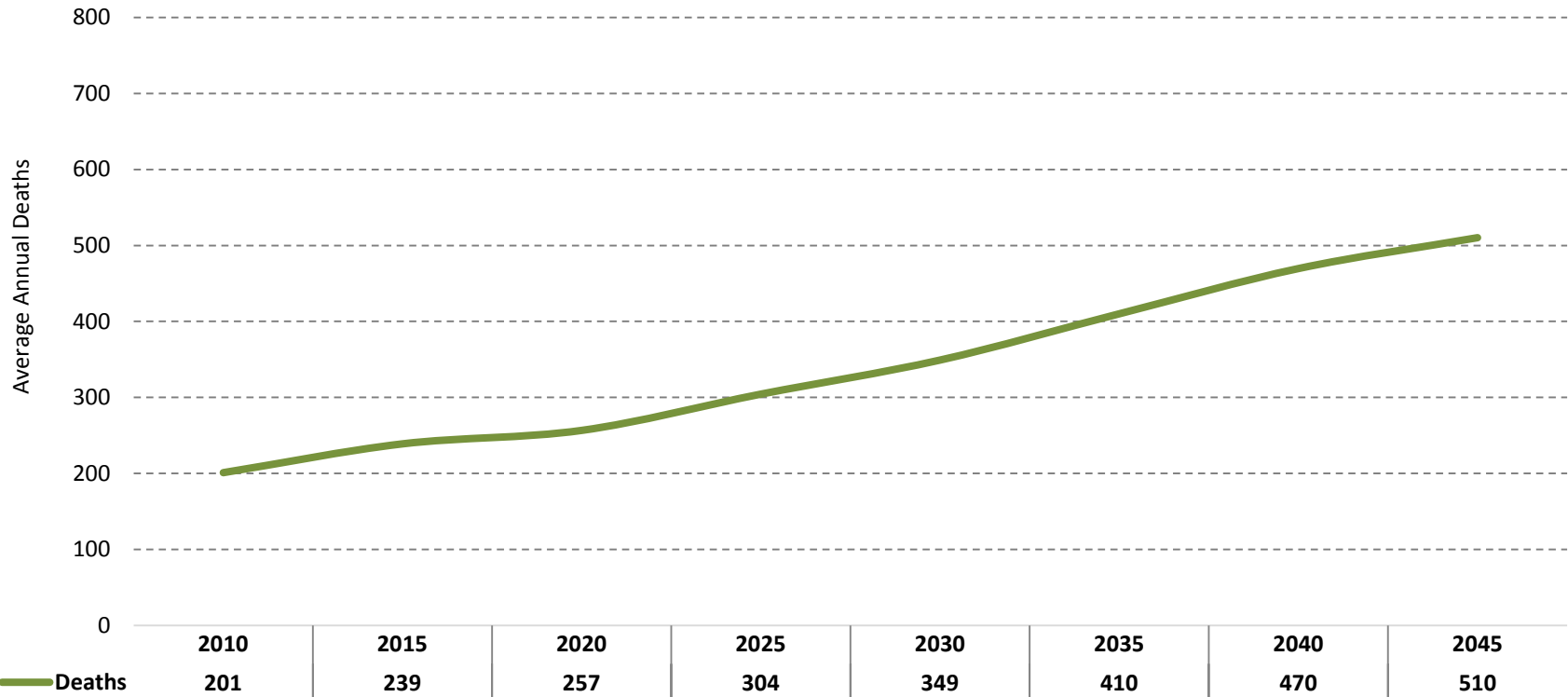


Sources: PEPASR6H-Geography-OregonYear-July 1, 2015 and July 1, 2010

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

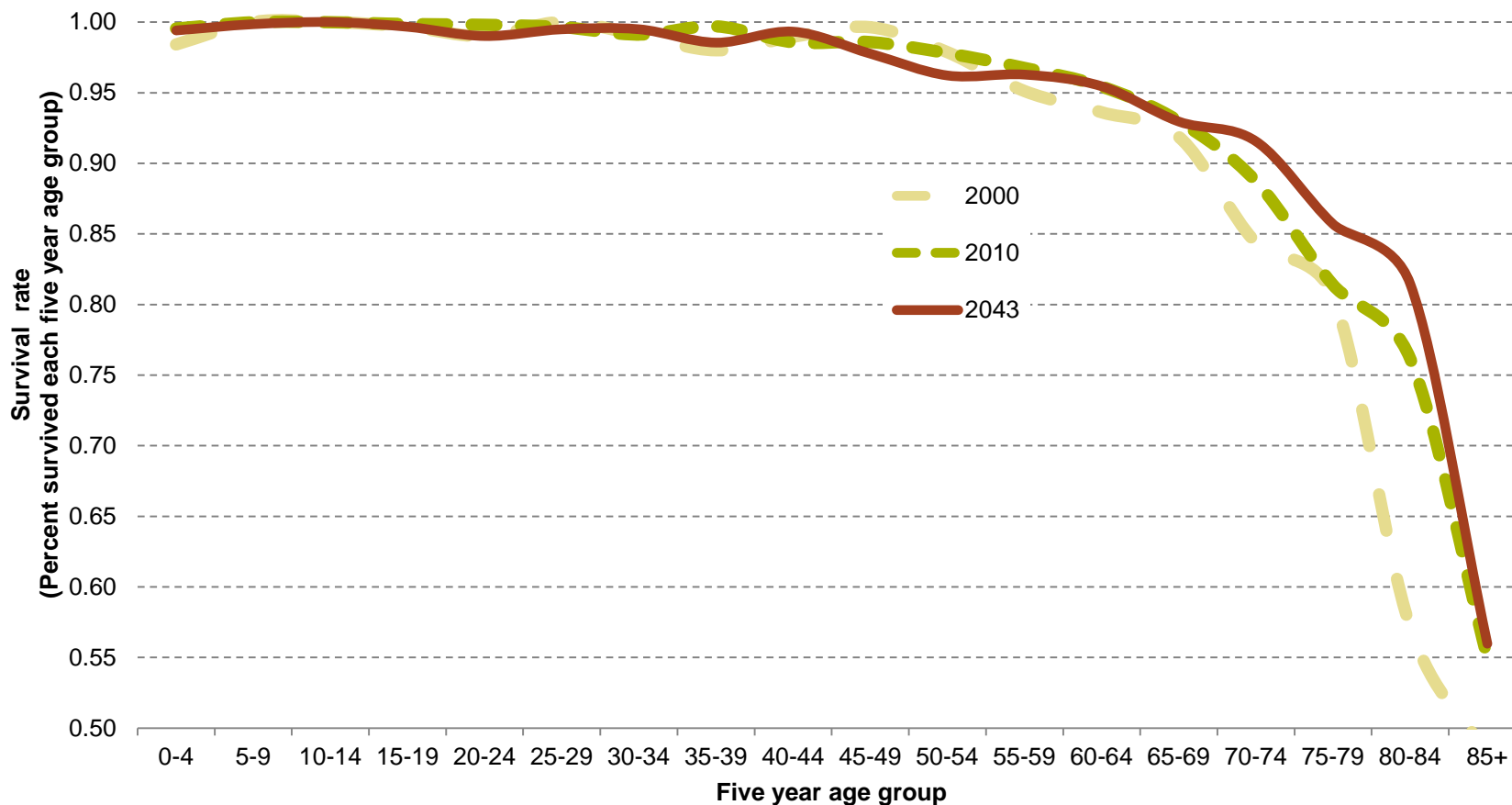
Crook County—Average Annual Deaths



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

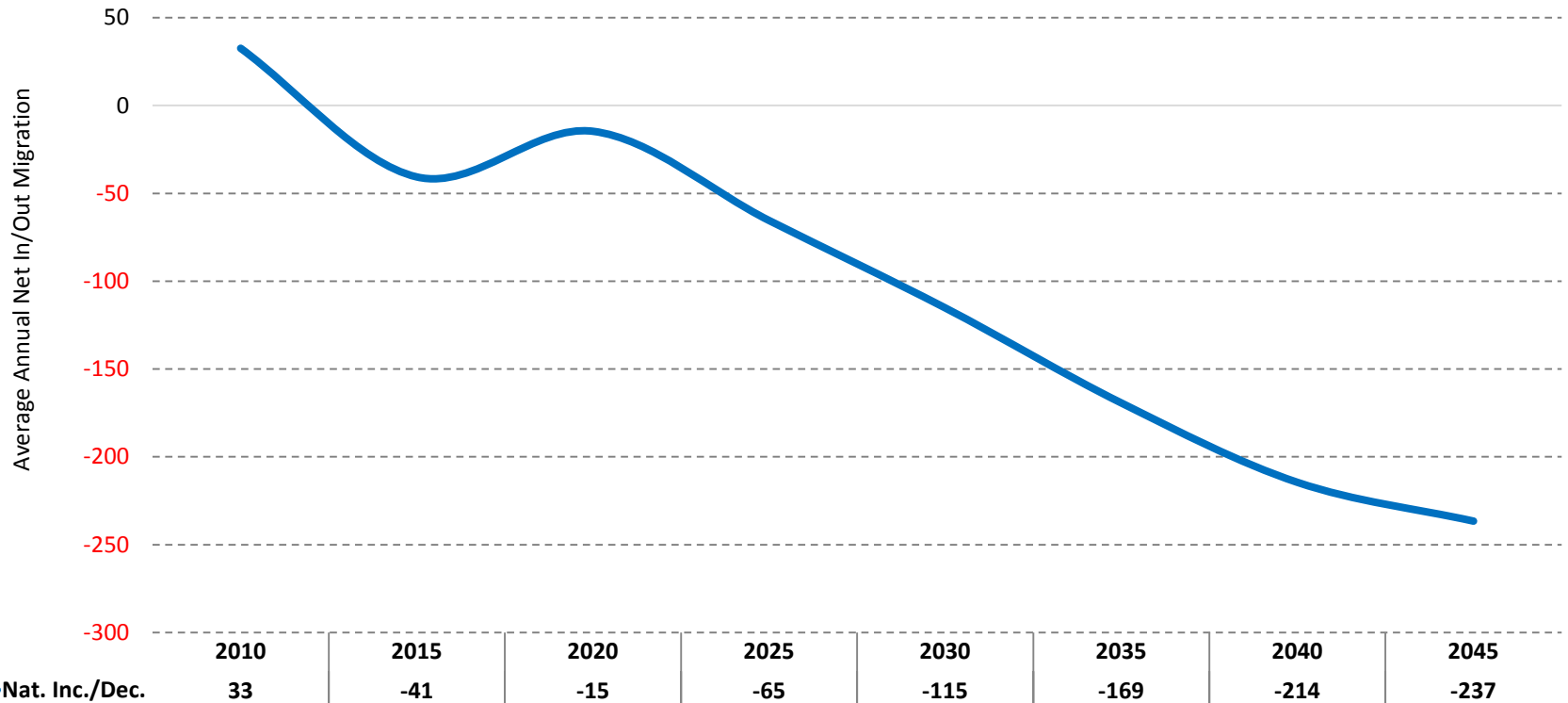
Note: The years signify the end of the period for which average annual numbers were calculated. The average annual numbers for "2010" were calculated for the 2000-2010 period, with the remaining years calculated for their preceding five-year periods.

Crook County – Age Specific Survival Rates



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

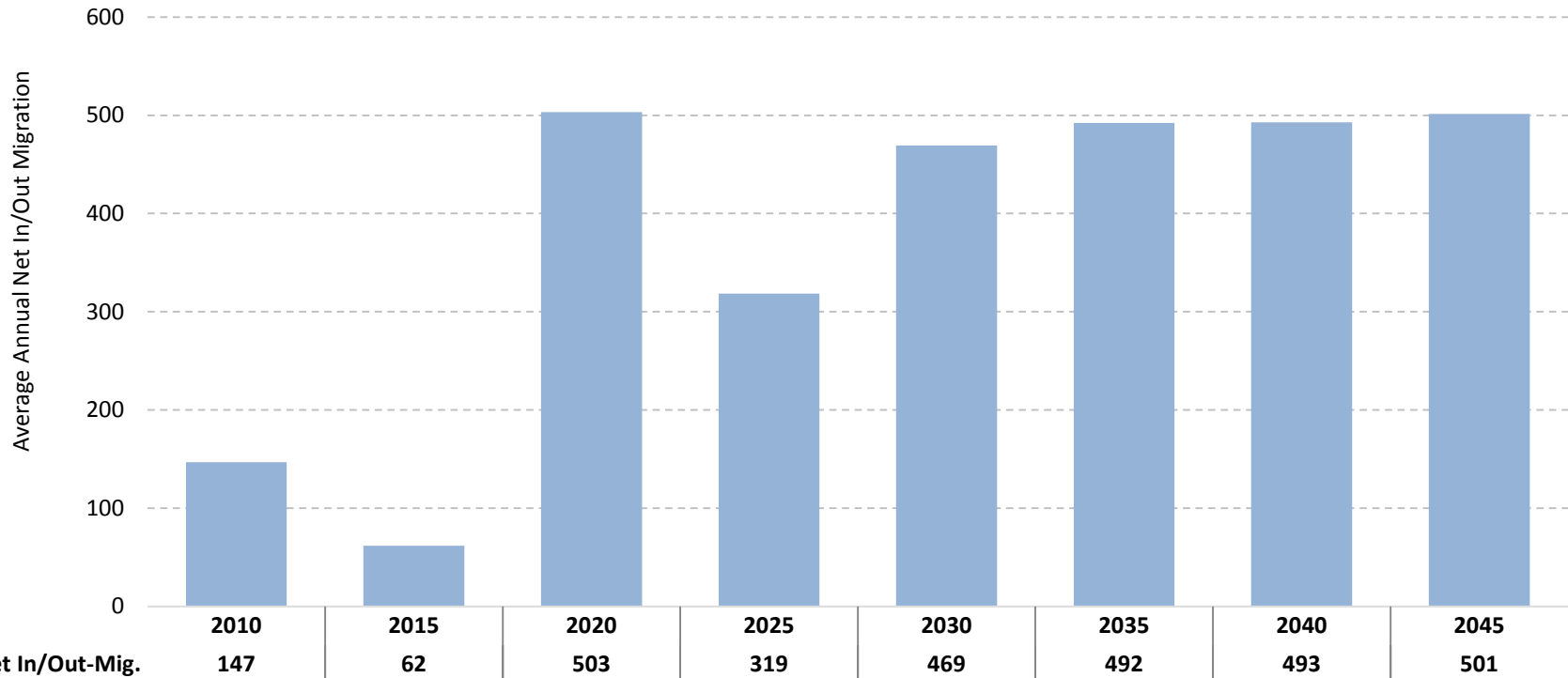
Crook County—Average Annual Natural Increase/Decrease



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.

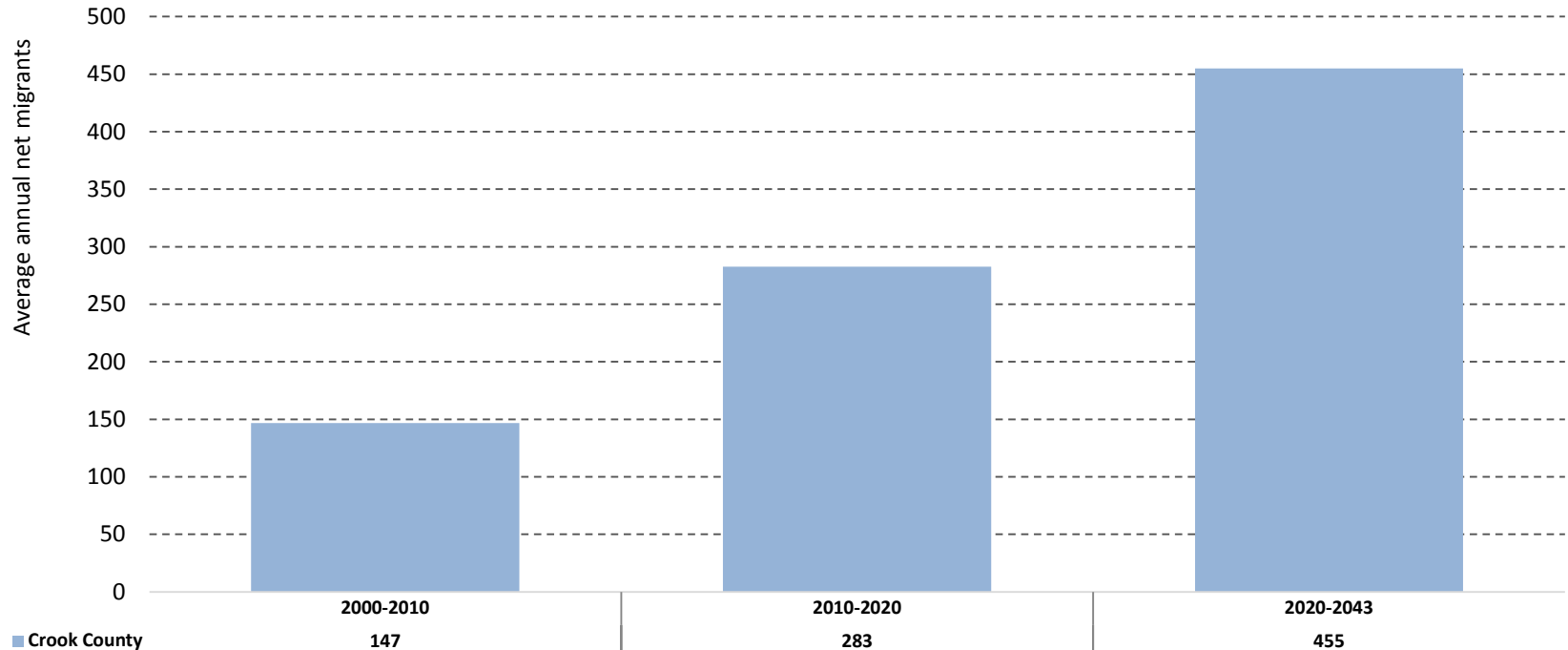
Crook County—Average Annual Net In/Out-Migration



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.

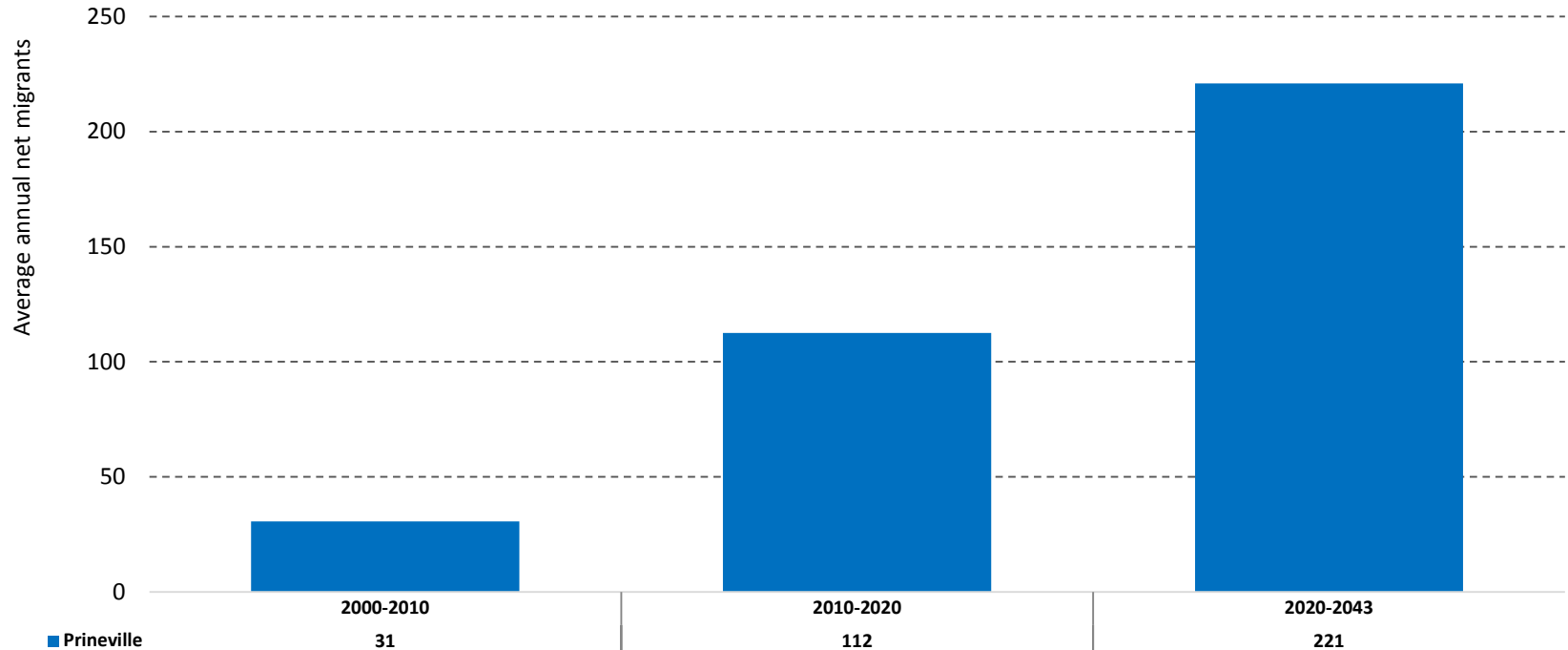
Crook County—Average Annual Net In/Out-Migration



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).

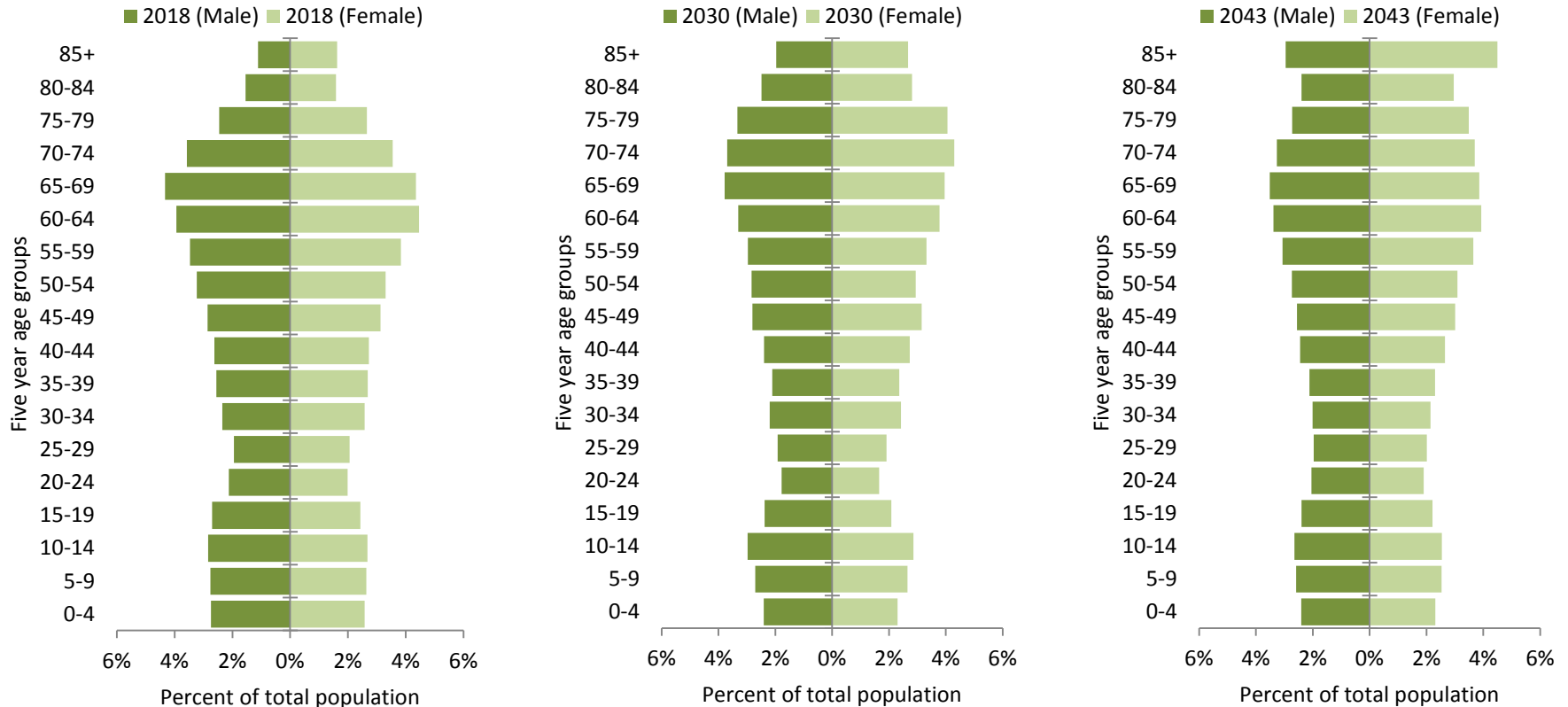
Crook County's Larger Sub-Areas—Average Annual Net In/Out-Migration



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).

Crook County—Age Structure of the Population



Source: Forecast by Population Research Center (PRC)

Historical and Forecast Populations for Crook County and its Sub-Areas

	Historical			Forecast					
	2000	2010	AAGR (2000-2010)	2018	2043	2068	AAGR (2010-2018)	AAGR (2018-2043)	AAGR (2043-2068)
Crook County	19,226	21,020	0.9%	22,519	30,358	37,787	0.8%	1.2%	0.4%
Prineville	10,540	11,213	0.6%	11,915	16,931	23,625	0.7%	1.4%	1.3%
Outside UGBs	8,642	9,765	1.2%	10,603	13,427	14,162	1.0%	0.9%	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
<i>Crook County</i>	22,519	30,358	37,787	1.2%	0.9%	--	--	--
Prineville	11,915	16,931	23,625	1.4%	1.3%	52.9%	55.8%	62.5%
Outside UGBs	10,603	13,427	14,162	0.9%	0.2%	47.1%	44.2%	37.5%

Source: Forecast by Population Research Center (PRC)

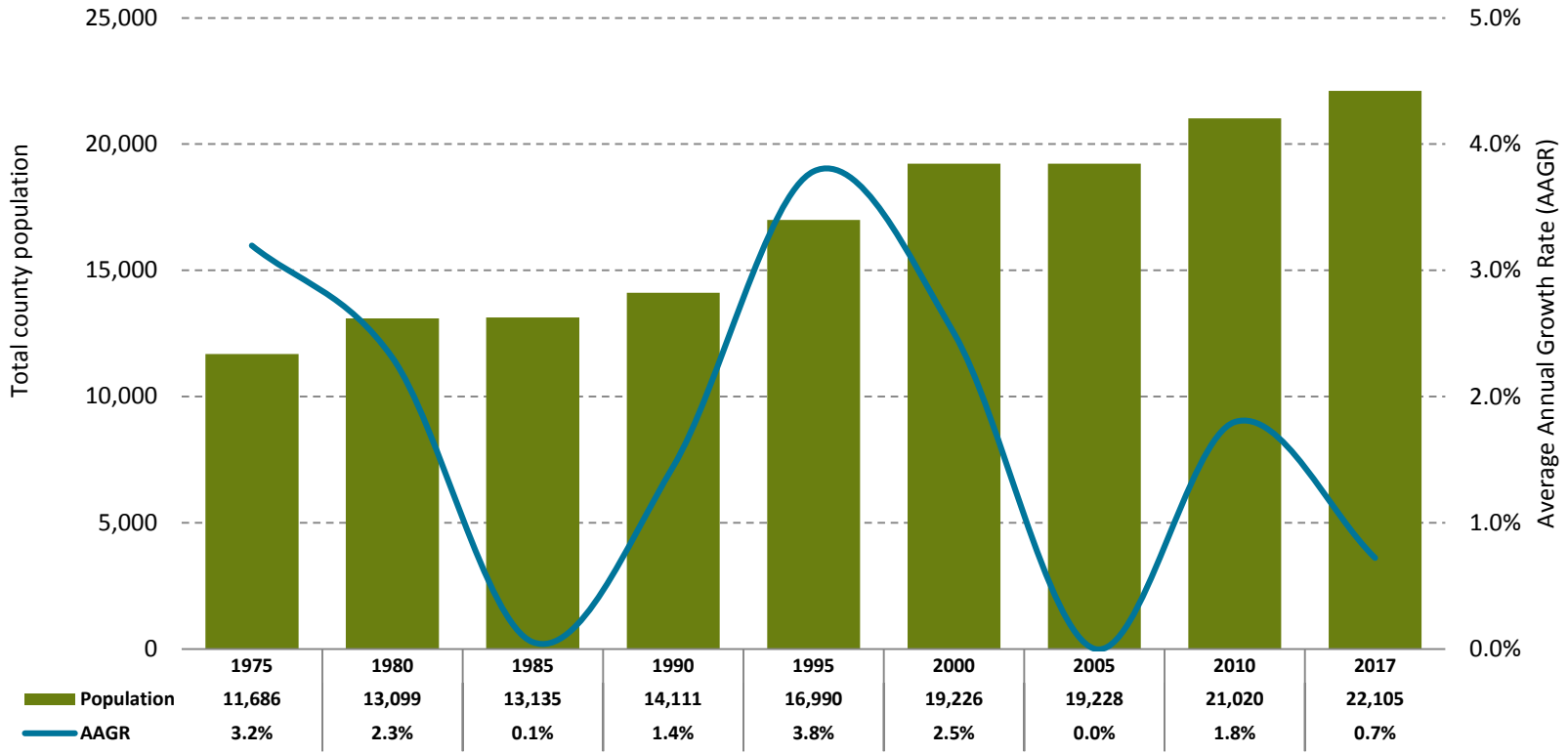
Note: For simplicity each UGB is referred to by its primary city's name.

Local Input and Additional Information

- Questions?
- Discussion time

Additional Historical Trends: Crook County

Crook 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.

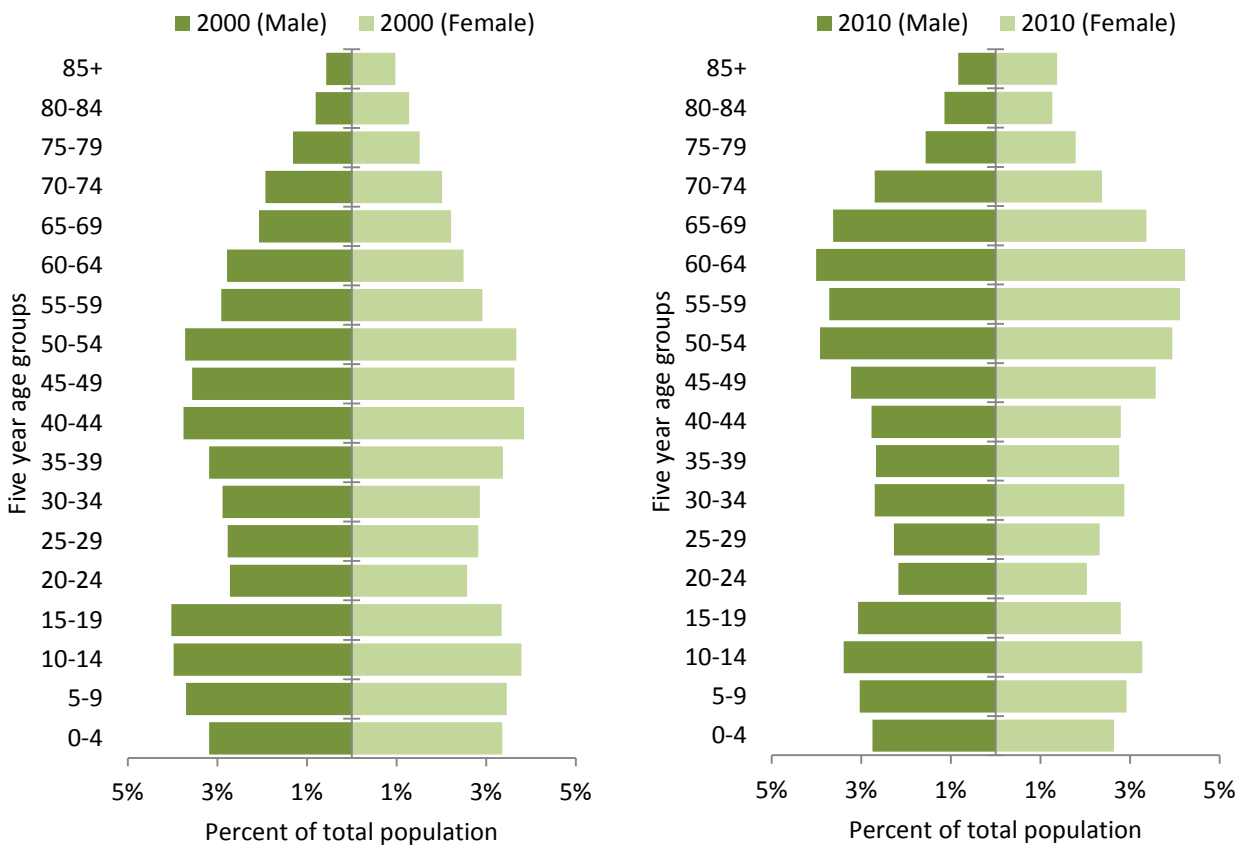
County and Sub-Areas—Population and Average Annual Growth Rate (AAGR) (2000-2010)

	2000	2010	AAGR (2000-2010)	Share of County 2000	Share of County 2010	Change (2000-2010)
<i>Crook County</i>	19,226	21,020	0.9%	99.8%	99.8%	0.0%
Prineville	10,540	11,213	0.6%	54.8%	53.3%	-1.5%
Outside UGBs	8,642	9,765	1.2%	45.0%	46.5%	1.5%

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

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

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

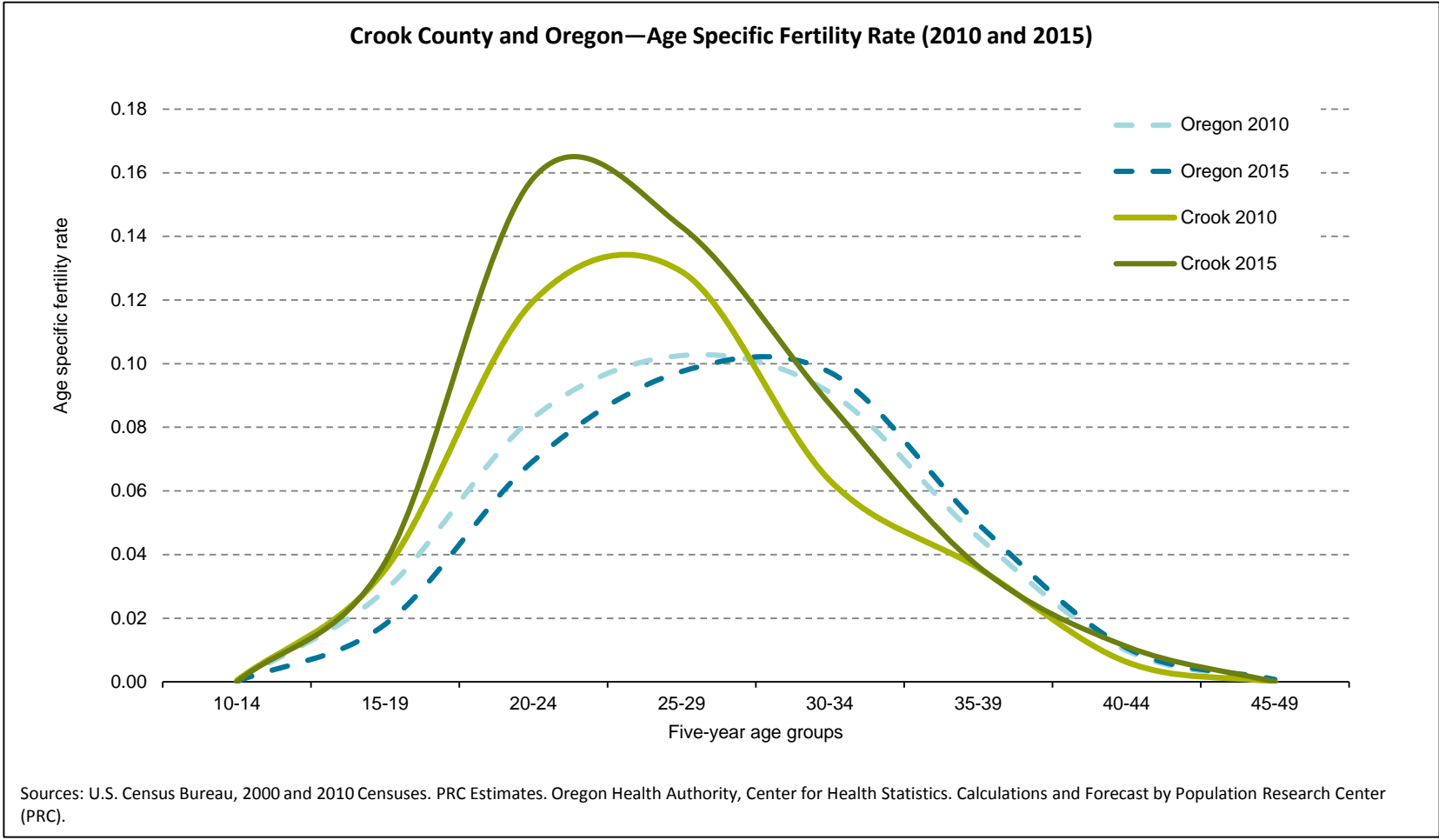


Sources: U.S. Census Bureau, 2000 and 2010 Censuses

Crook 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>	19,182	100.0%	20,978	100.0%	1,796	9.4%
Hispanic or Latino	1,082	5.6%	1,463	7.0%	381	35.2%
Not Hispanic or Latino	18,100	94.4%	19,515	93.0%	1,415	7.8%
White alone	17,532	91.4%	18,758	89.4%	1,226	7.0%
Black or African American alone	6	0.0%	30	0.1%	24	400.0%
American Indian and Alaska Native alone	235	1.2%	273	1.3%	38	16.2%
Asian alone	82	0.4%	96	0.5%	14	17.1%
Native Hawaiian and Other Pacific Islander alone	6	0.0%	11	0.1%	5	83.3%
Some Other Race alone	12	0.1%	12	0.1%	0	0.0%
Two or More Races	227	1.2%	335	1.6%	108	47.6%

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

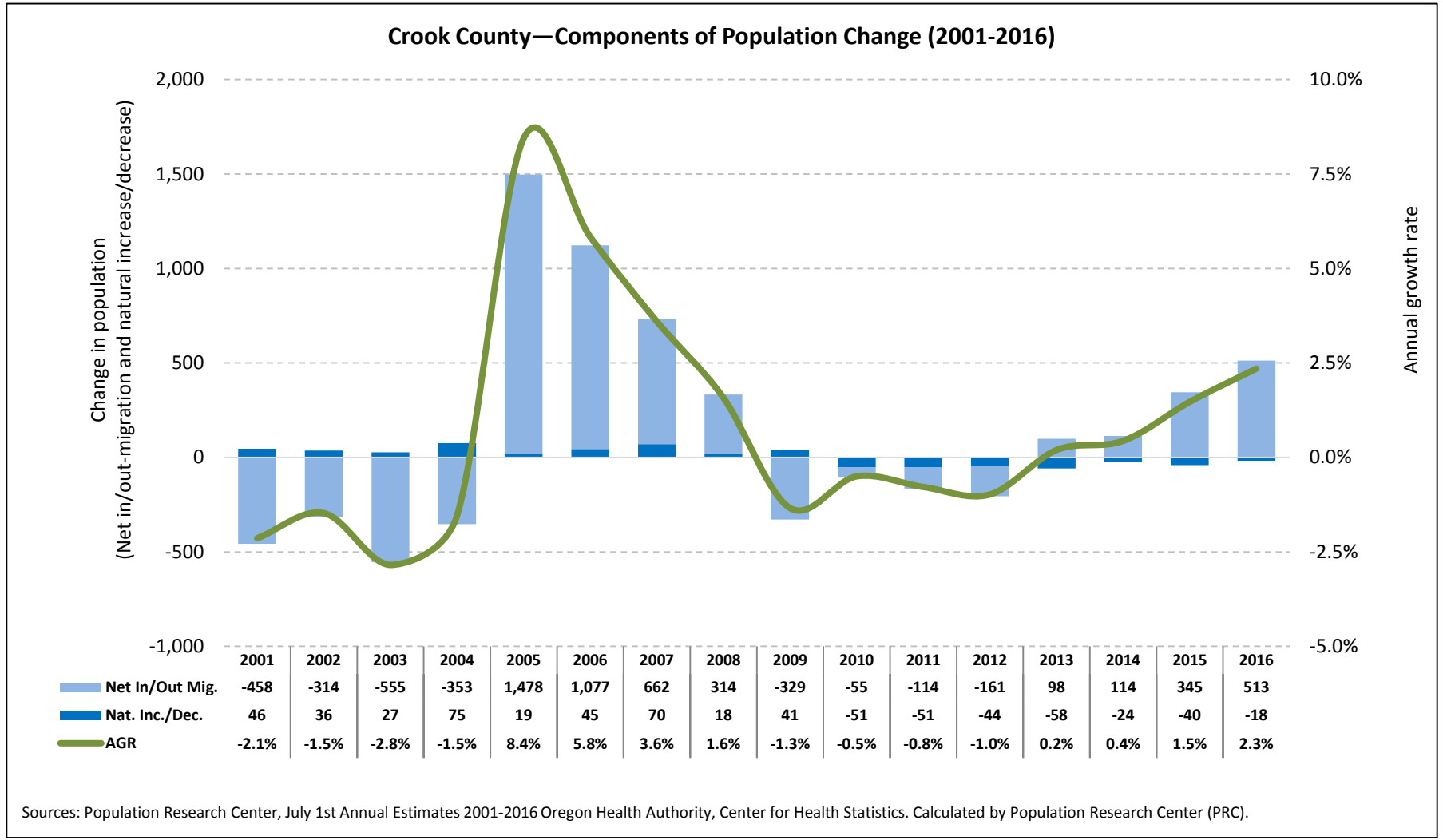


Total Fertility Rate (TFR)		
	2000	2010
Crook County	1.98	1.95
Oregon	1.98	1.81

Crook County and Oregon—Ten Year Migration Rates (2000-2010)



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



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

Crook 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>Crook County</i>	8,264	10,202	2.1%	100.0%	100.0%	0.0%
Prineville	4,285	5,027	1.6%	51.9%	49.3%	-2.6%
Outside UGBs	3,979	5,175	2.7%	48.1%	50.7%	2.6%

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

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

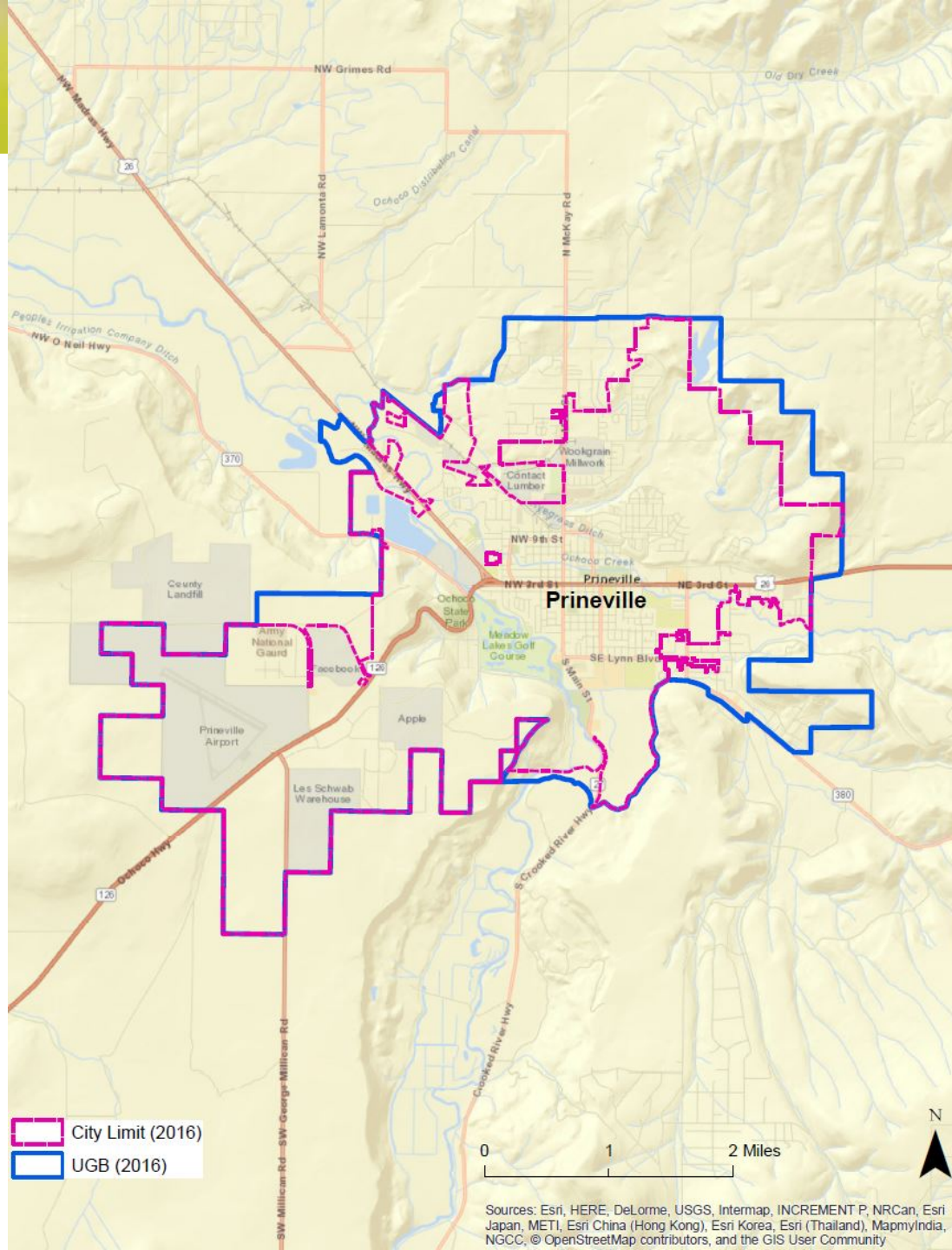
Crook County and Sub-Areas—Persons Per Household (PPH) and Occupancy Rate (2000 and 2010)

	Persons Per Household (PPH)			Occupancy Rate		
	2000	2010	Change 2000-2010	2000	2010	Change 2000-2010
<i>Crook County</i>	2.6	2.4	-5.8%	88.99%	83.89%	-5.1%
Prineville	2.6	2.4	-4.8%	93.79%	89.10%	-4.7%
Outside UGBs	2.6	2.4	-7.1%	83.82%	78.82%	-5.0%

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

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

Crook County UGBs



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