

Oregon Population Forecast Program

Regional Forecast Meeting - March 6, 2018

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

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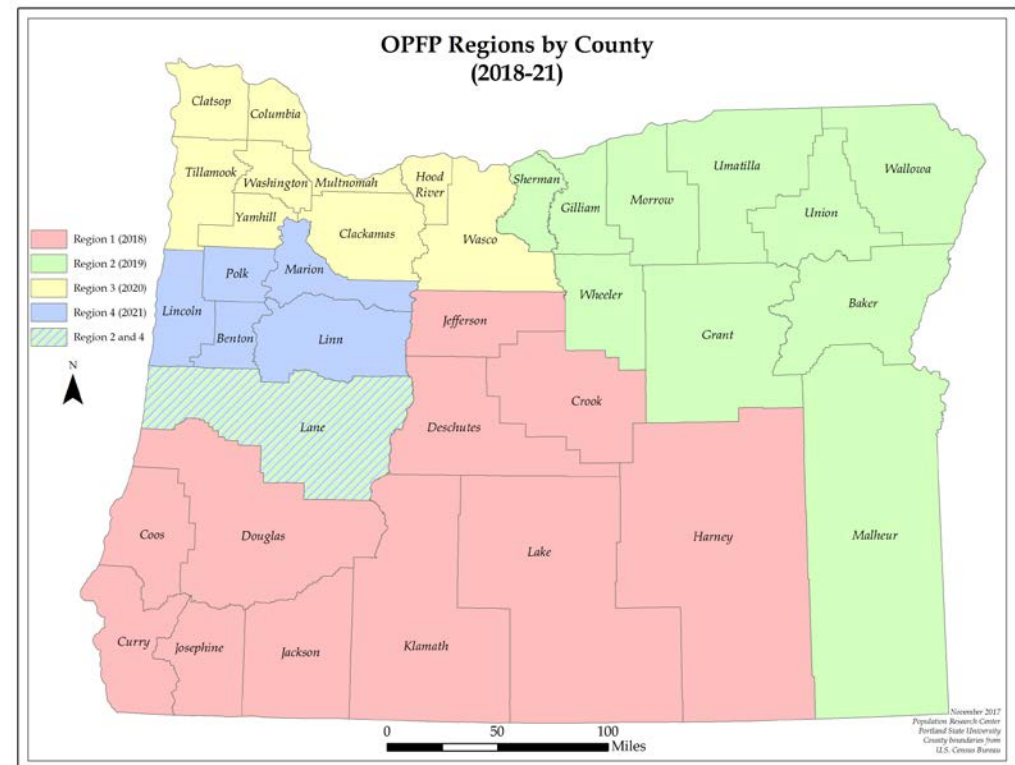
Charles Rynerson,
Research Consultant

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

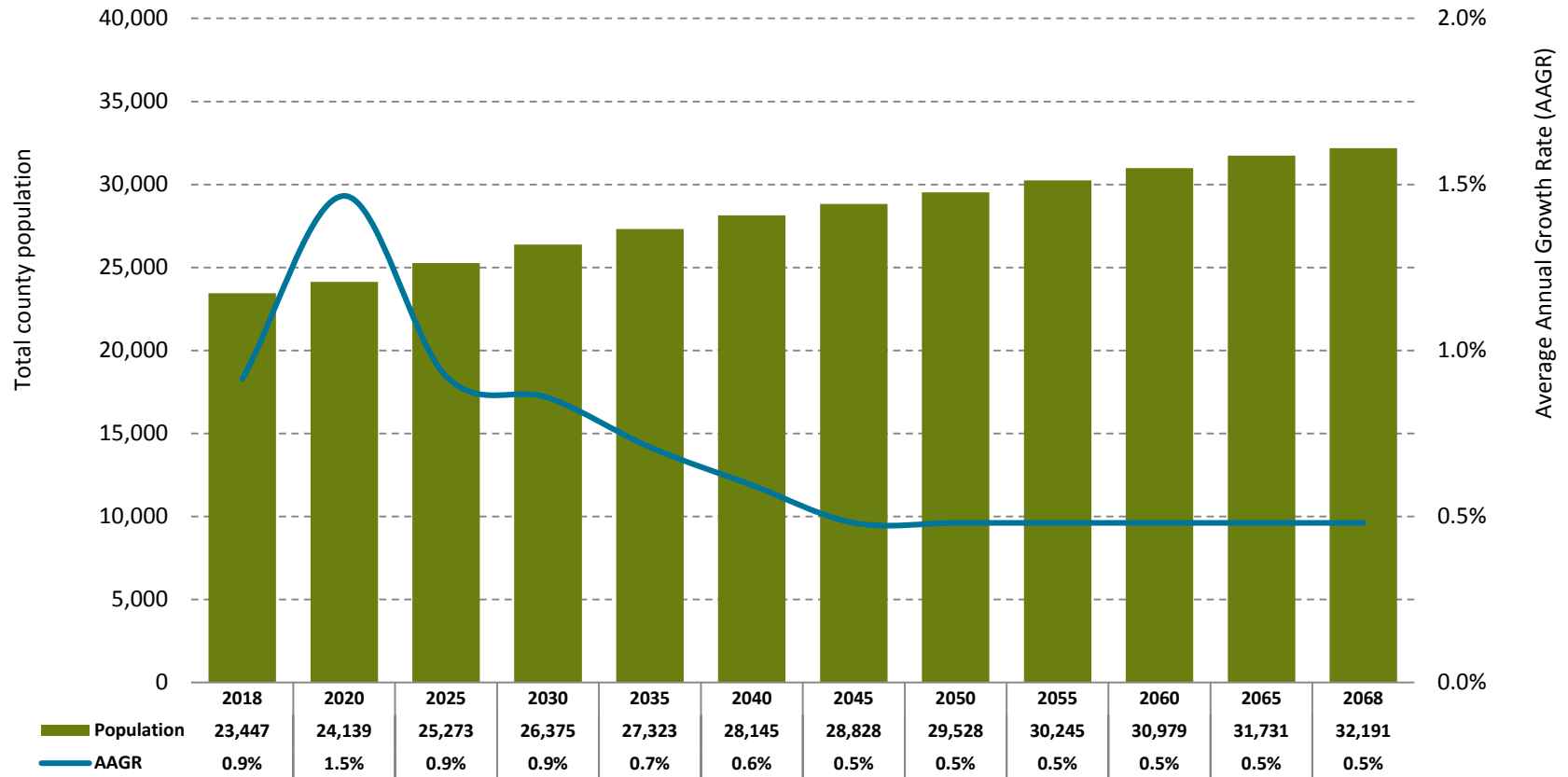
- Modified Methodology (50 Year Period)
- Forecast Methods (2018-43)
 - Cohort-Component and Housing Unit Model
- Modified Method (2043-68):
 - County: AAGR of the last 5 year period (2040-45) is extrapolated out for the remaining 25 years.
 - Sub-areas: Trend the sub-area share of the County for the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



Assumptions for Jefferson County

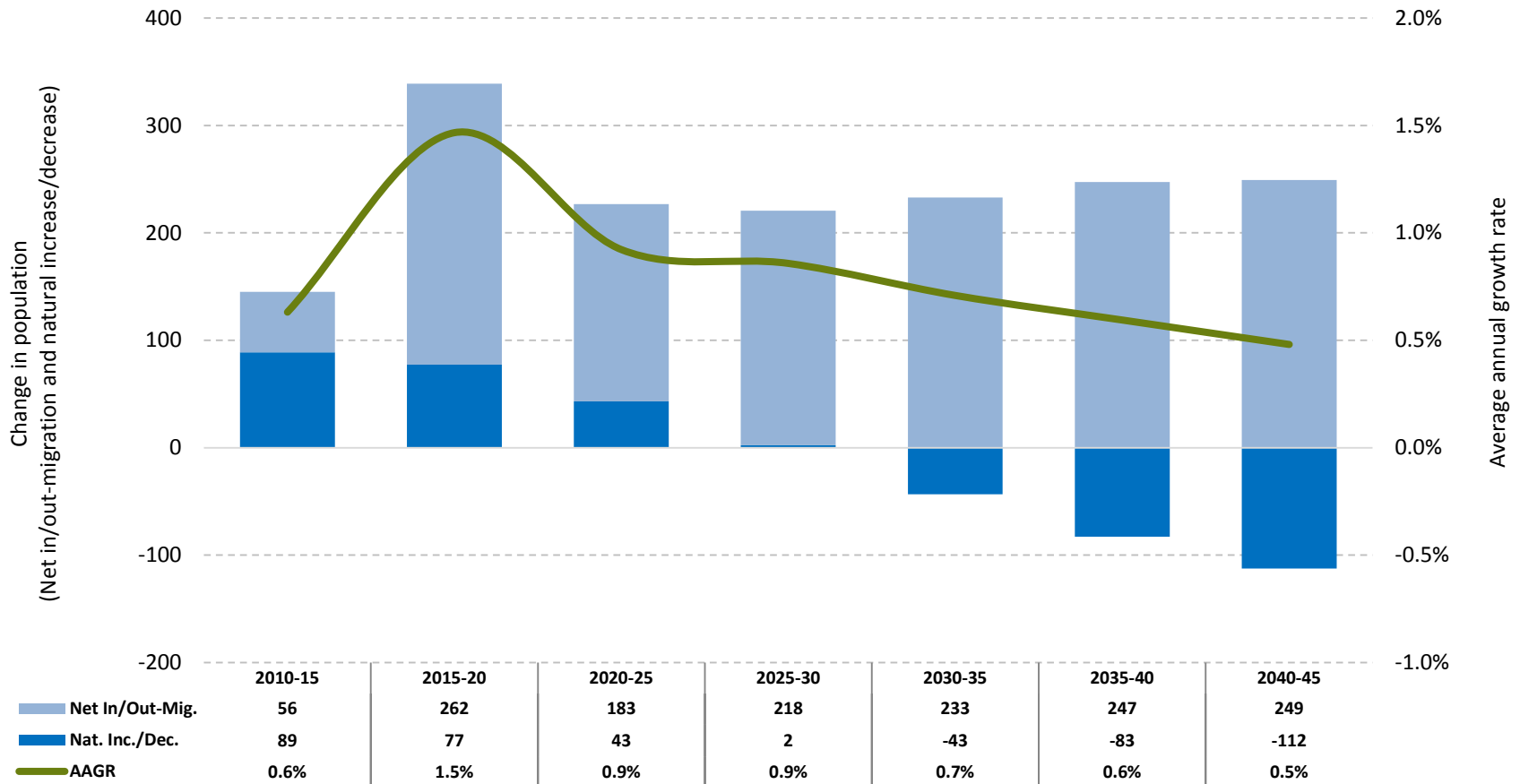
1. As the economy strengthens and Oregon's population ages, we assume net in-migration and housing construction to increase into the 2010-20 decade.
 - a) Despite the recent influx of net in-migration over the last few years, we expect growth to regress during early 2020's as the economy contracts.
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

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



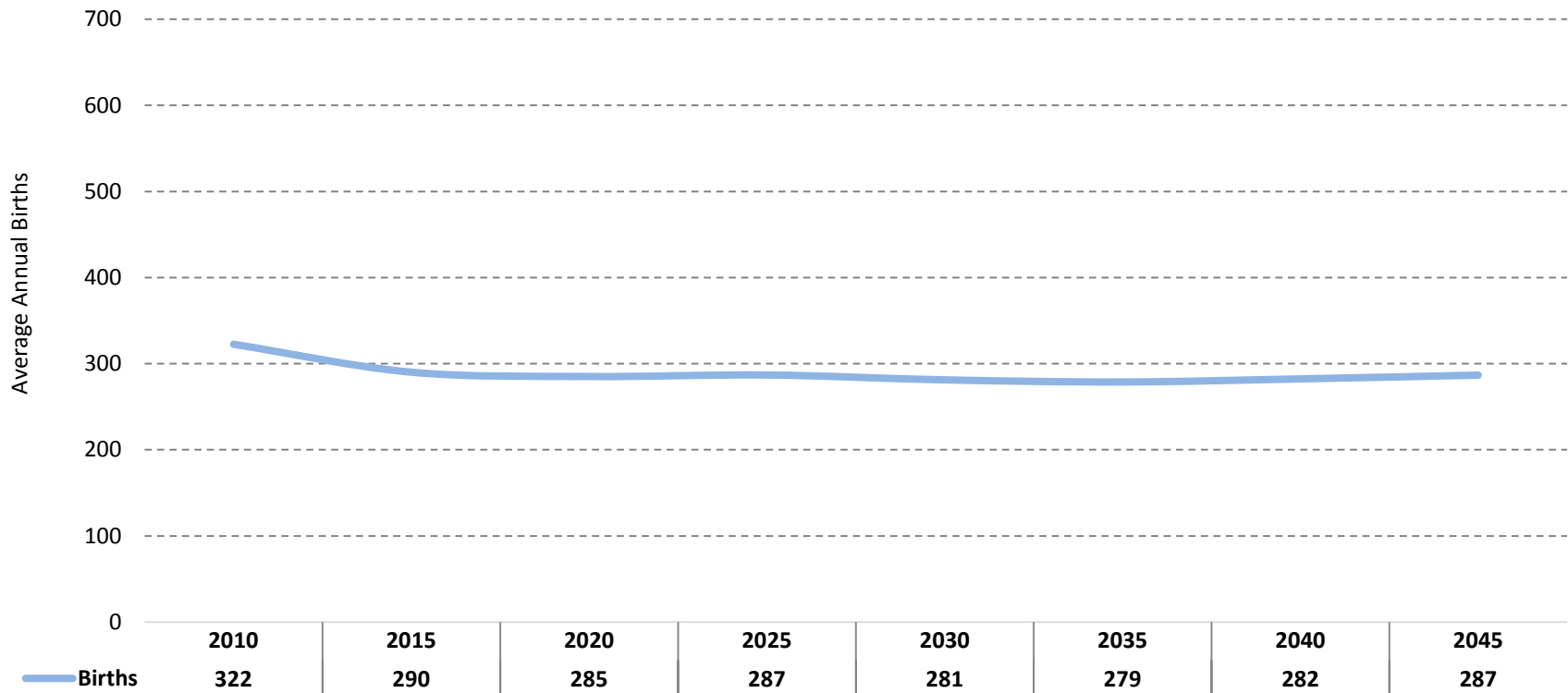
Source: Forecast by Population Research Center (PRC).

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



Source: Forecast by Population Research Center (PRC)

Jefferson 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.

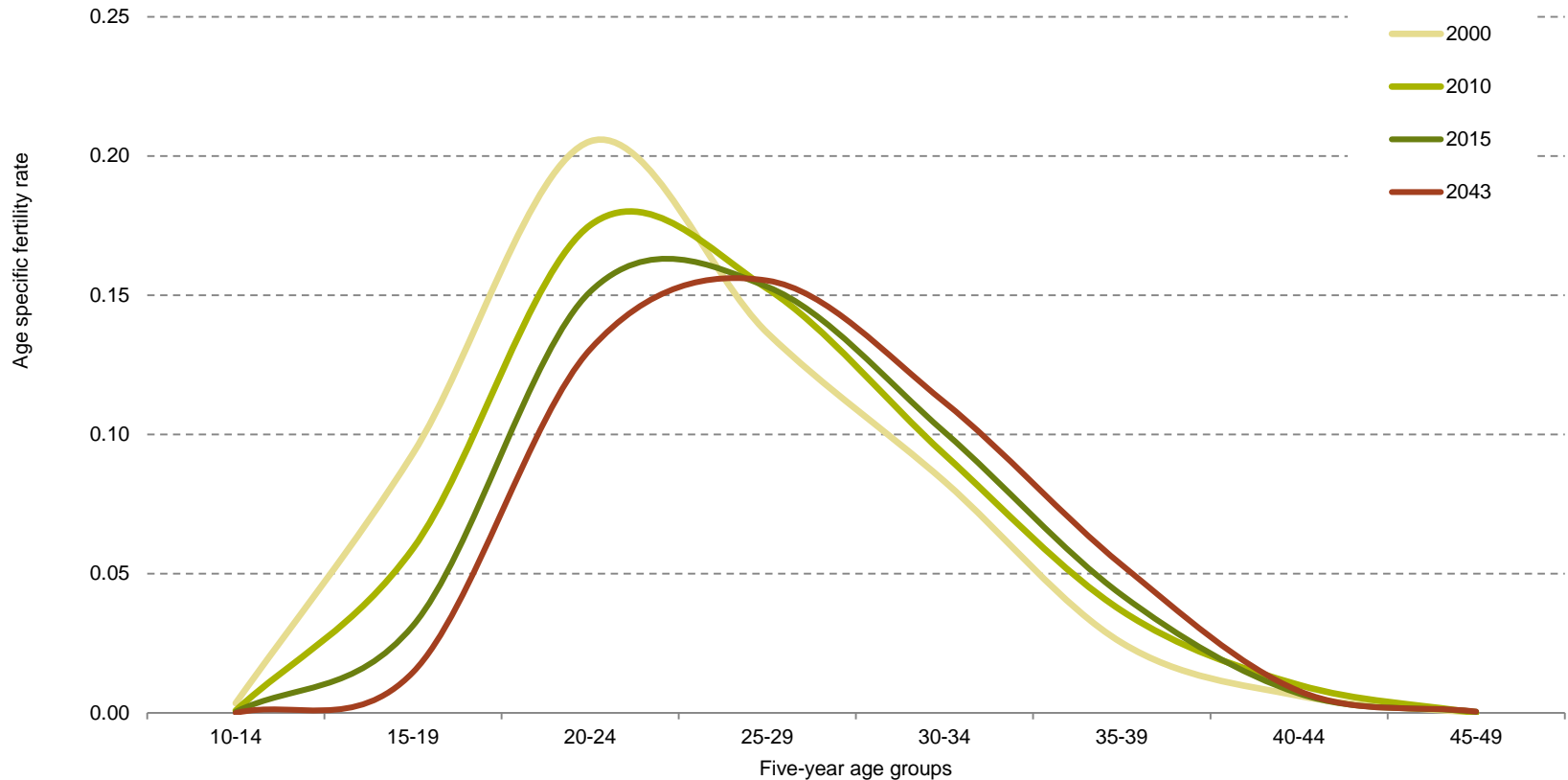
Total Fertility Rate (TFR)

	2000	2010	2015	2043
Jefferson County	2.76	2.64	2.43	2.37
Oregon	1.98	1.81	1.72	--

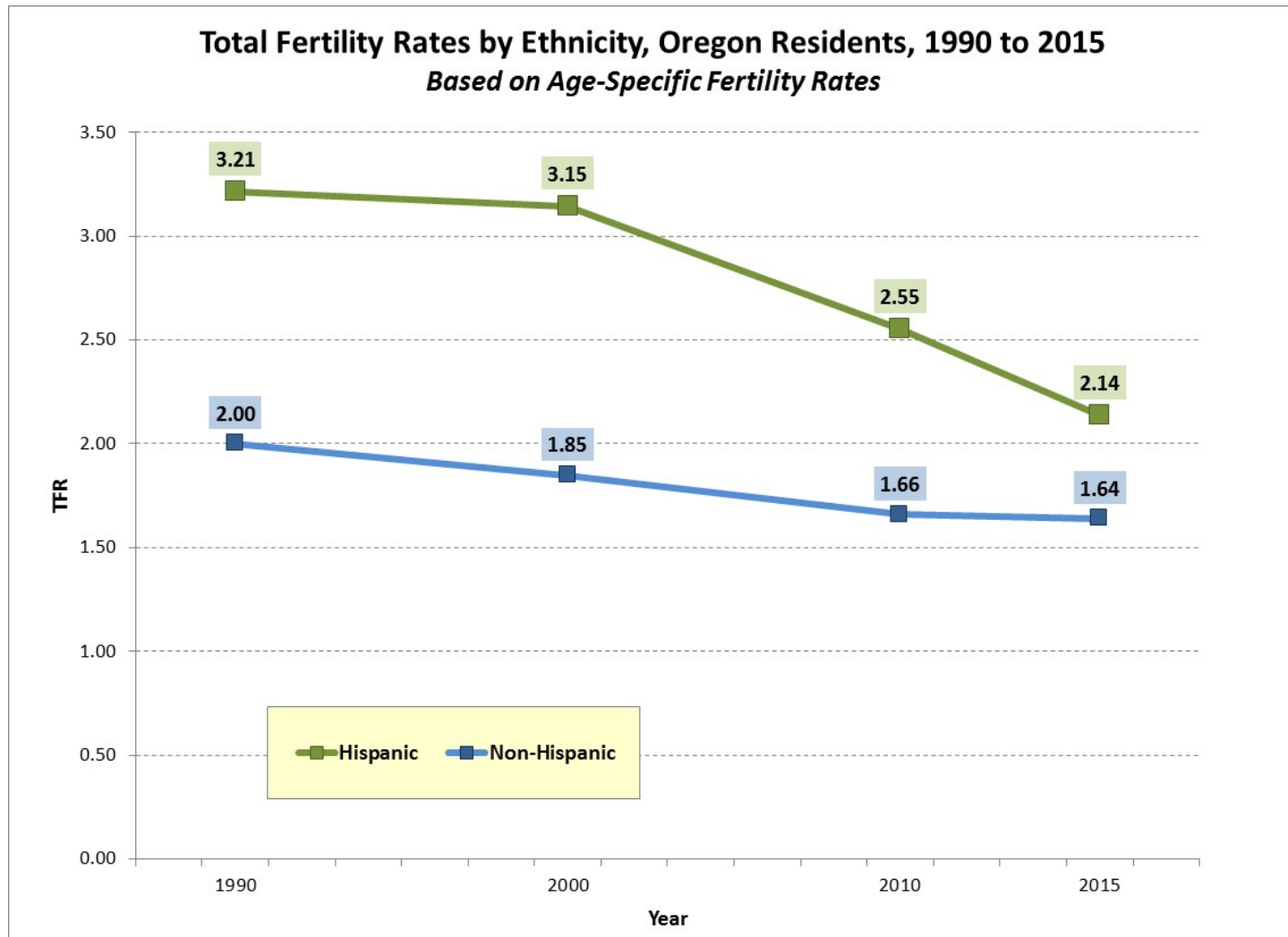
Sources: U.S. Census Bureau, 2000 and 2010 Censuses. PRC Estimates. Oregon Health Authority, Center for Health Statistics. Calculations and Forecast by Population Research Center (PRC).

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.

Jefferson 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).

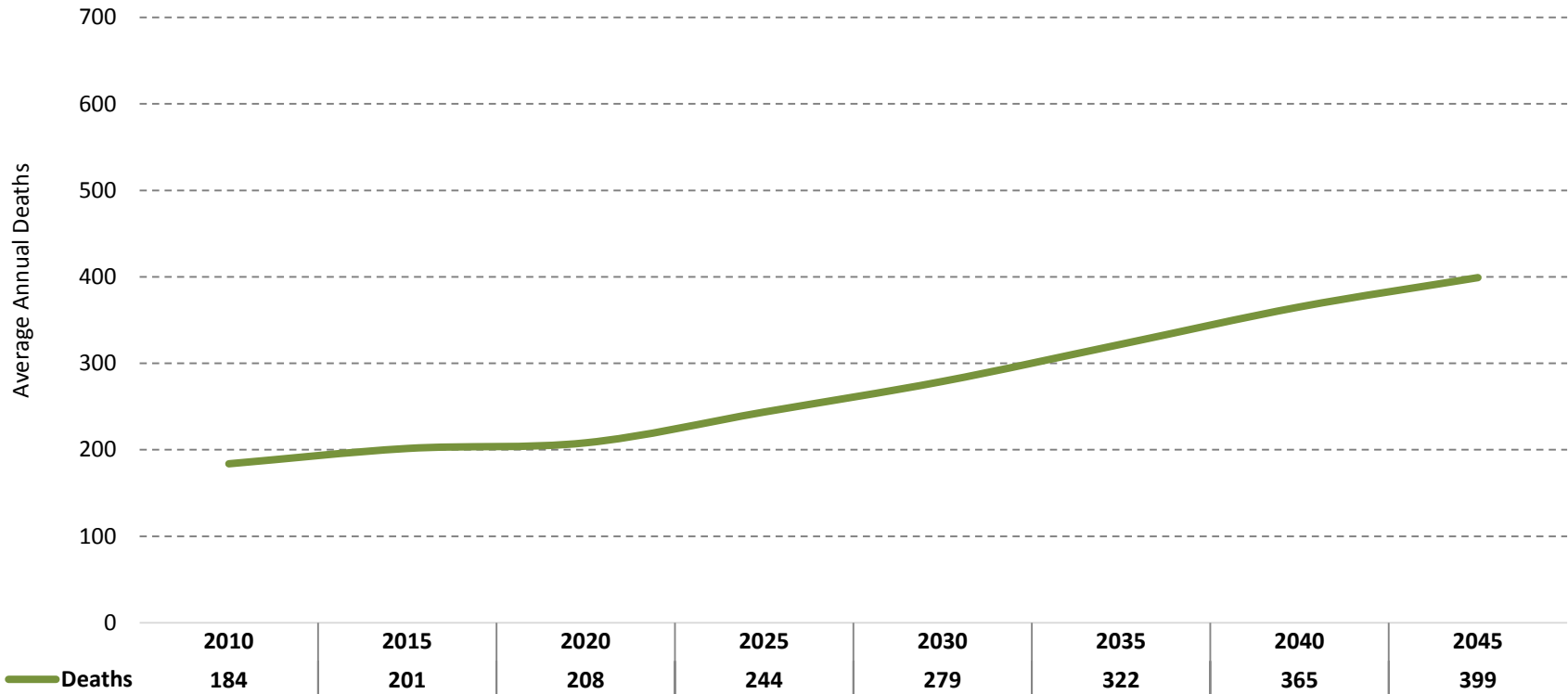


Sources: PEPASR6H-Geography-OregonYear-July 1, 2015 and July 1, 2010

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

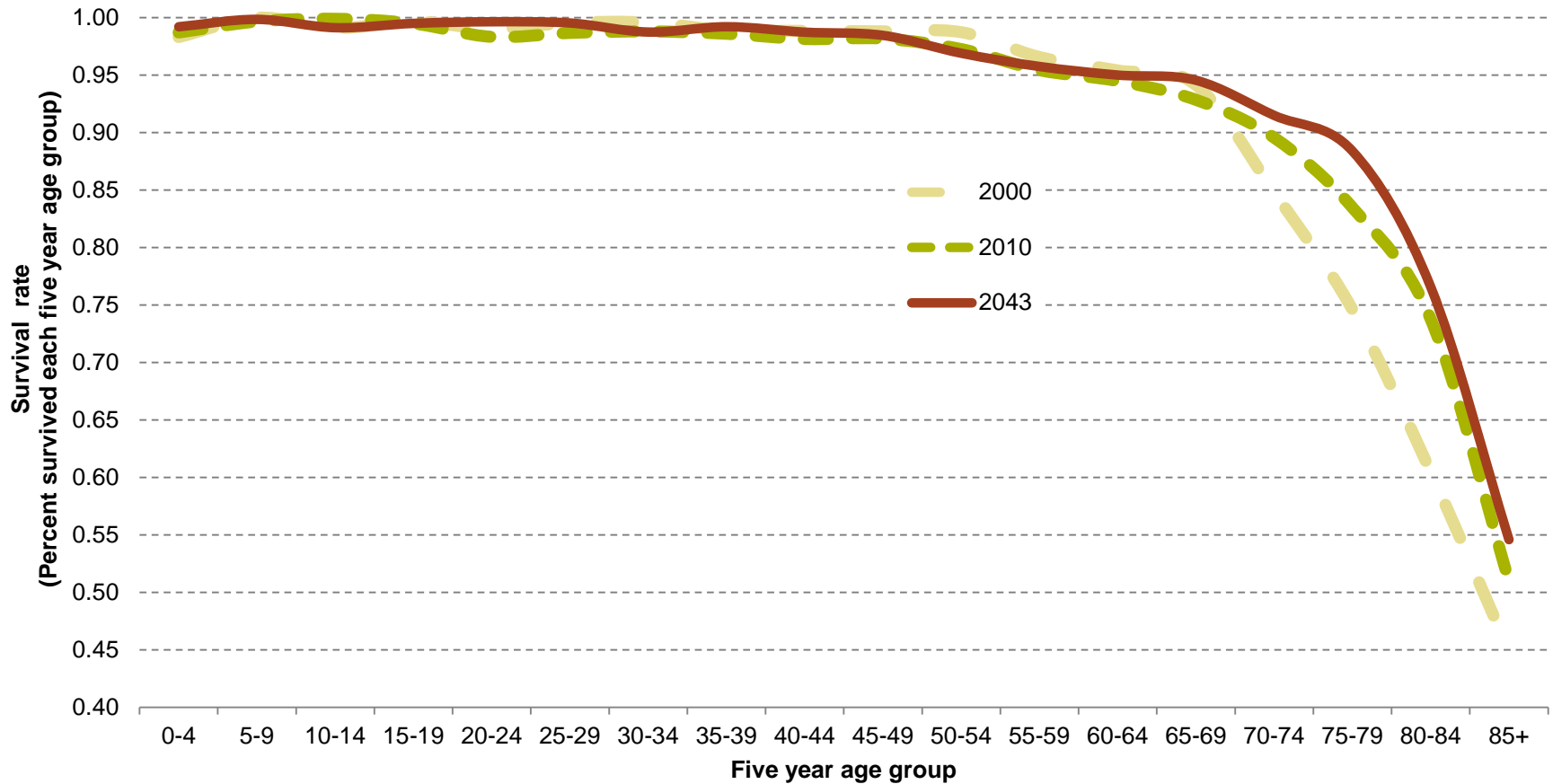
Jefferson County—Average Annual Deaths



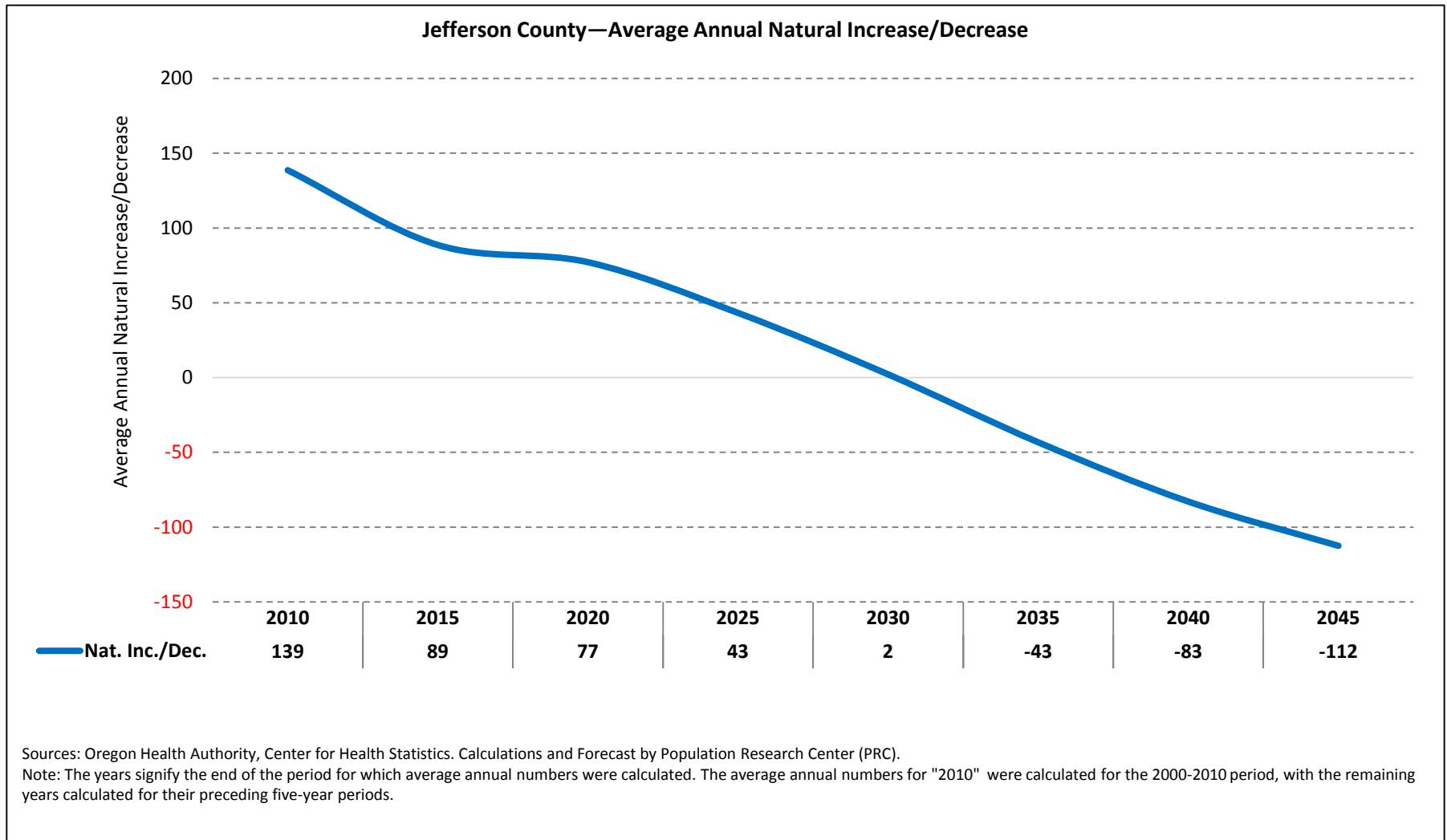
Sources: Oregon Health Authority, Center for Health Statistics. Calculations and Forecast by Population Research Center (PRC).

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.

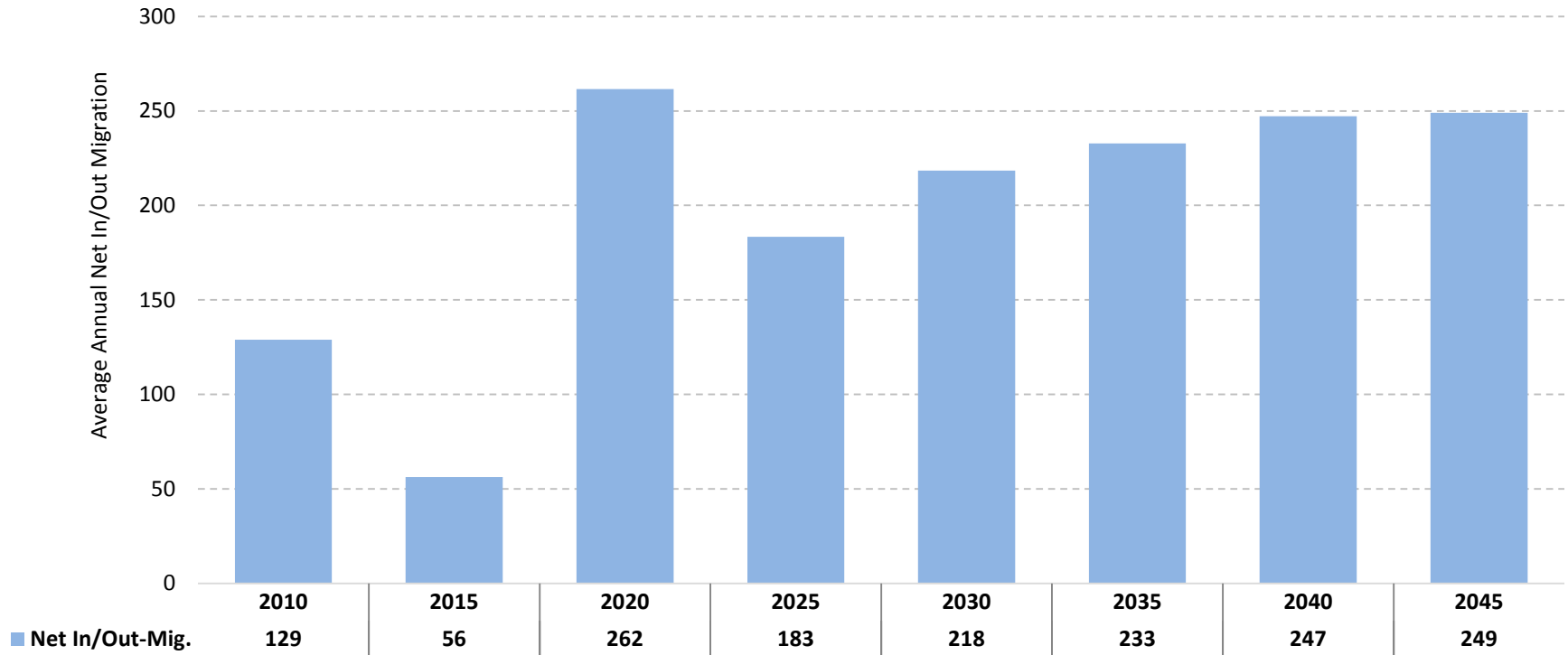
Jefferson County – Age Specific Survival Rates



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



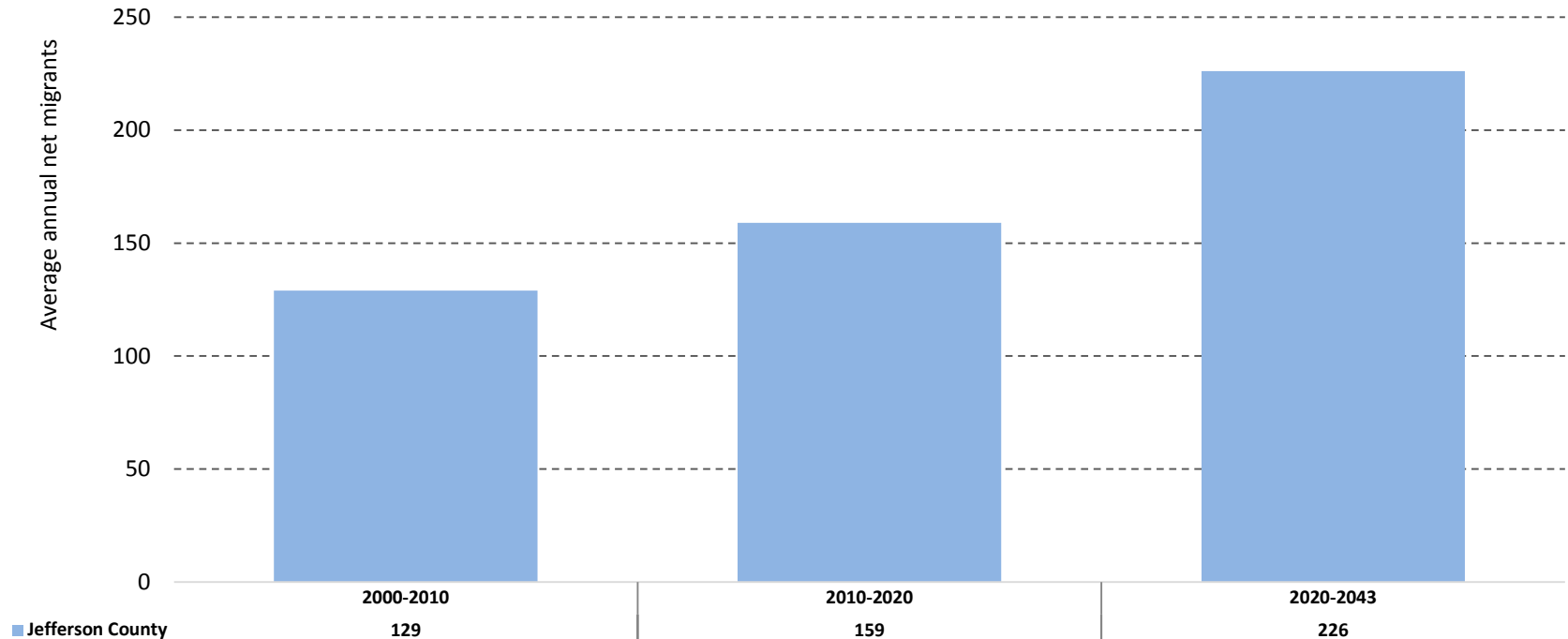
Jefferson County—Average Annual Net In/Out-Migration



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.

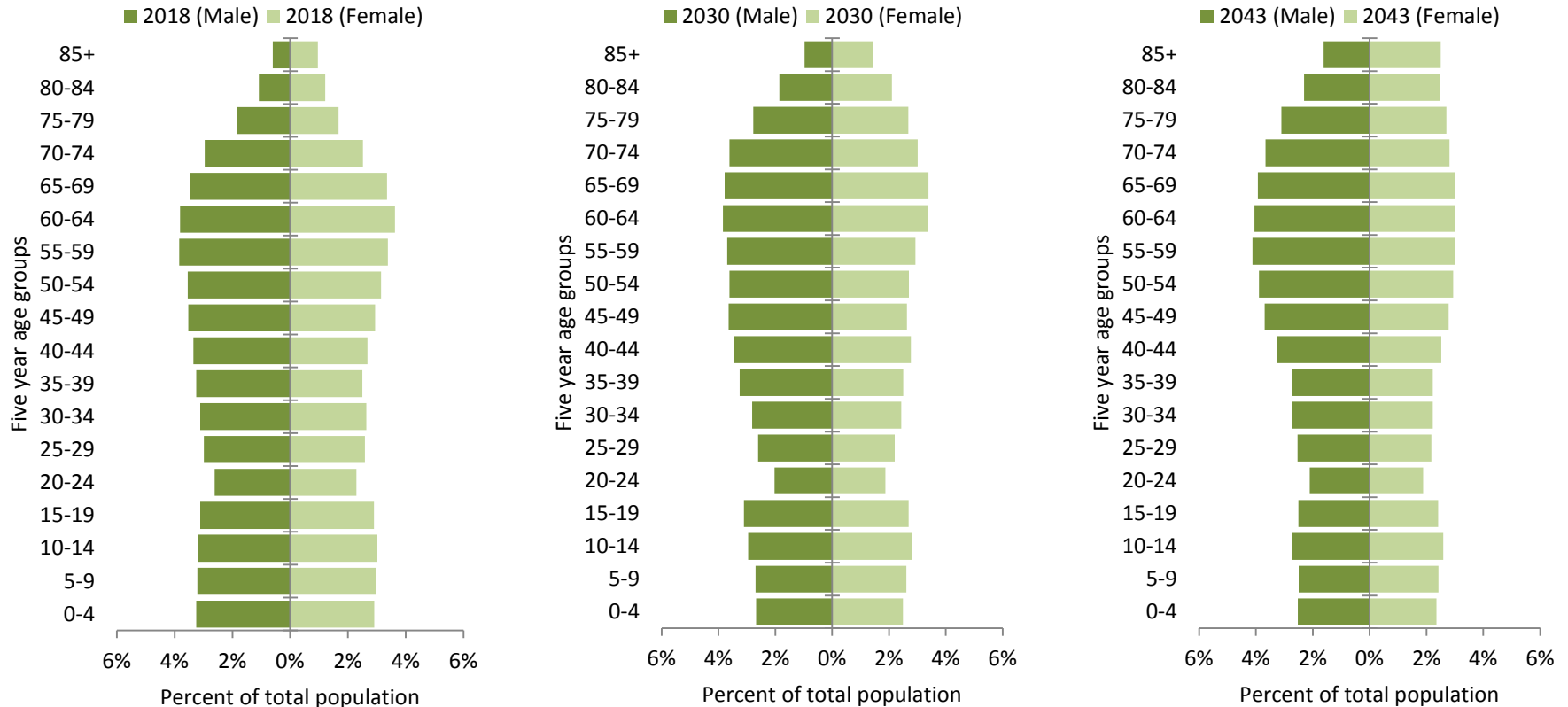
Jefferson County—Average Annual Net In/Out-Migration



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).

Jefferson County—Age Structure of the Population



Source: Forecast by Population Research Center (PRC)

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

	Historical			Forecast					
	2000	2010	AAGR (2000-2010)	2018	2043	2068	AAGR (2010-2018)	AAGR (2018-2043)	AAGR (2043-2068)
<i>Jefferson County</i>	19,073	21,750	1.3%	23,447	28,553	32,191	0.9%	0.8%	0.2%
Culver	802	1,357	5.4%	1,440	1,898	2,292	0.7%	1.1%	0.8%
Madras	6,470	6,987	0.8%	7,163	9,245	11,221	0.3%	1.0%	0.8%
Metolius	646	732	1.3%	1,076	1,349	1,500	4.8%	0.9%	0.4%
Outside UGBs	11,091	12,644	1.3%	13,767	16,060	17,178	1.0%	0.6%	0.3%

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>Jefferson County</i>	23,447	28,553	32,191	0.8%	0.5%	--	--	--
Culver	1,440	1,898	2,292	1.1%	0.8%	6.1%	6.6%	7.1%
Madras	7,163	9,245	11,221	1.0%	0.8%	30.6%	32.4%	34.9%
Metolius	1,076	1,349	1,500	0.9%	0.4%	4.6%	4.7%	4.7%
Outside UGBs	13,767	16,060	17,178	0.6%	0.3%	58.7%	56.2%	53.4%

Source: Forecast by Population Research Center (PRC)

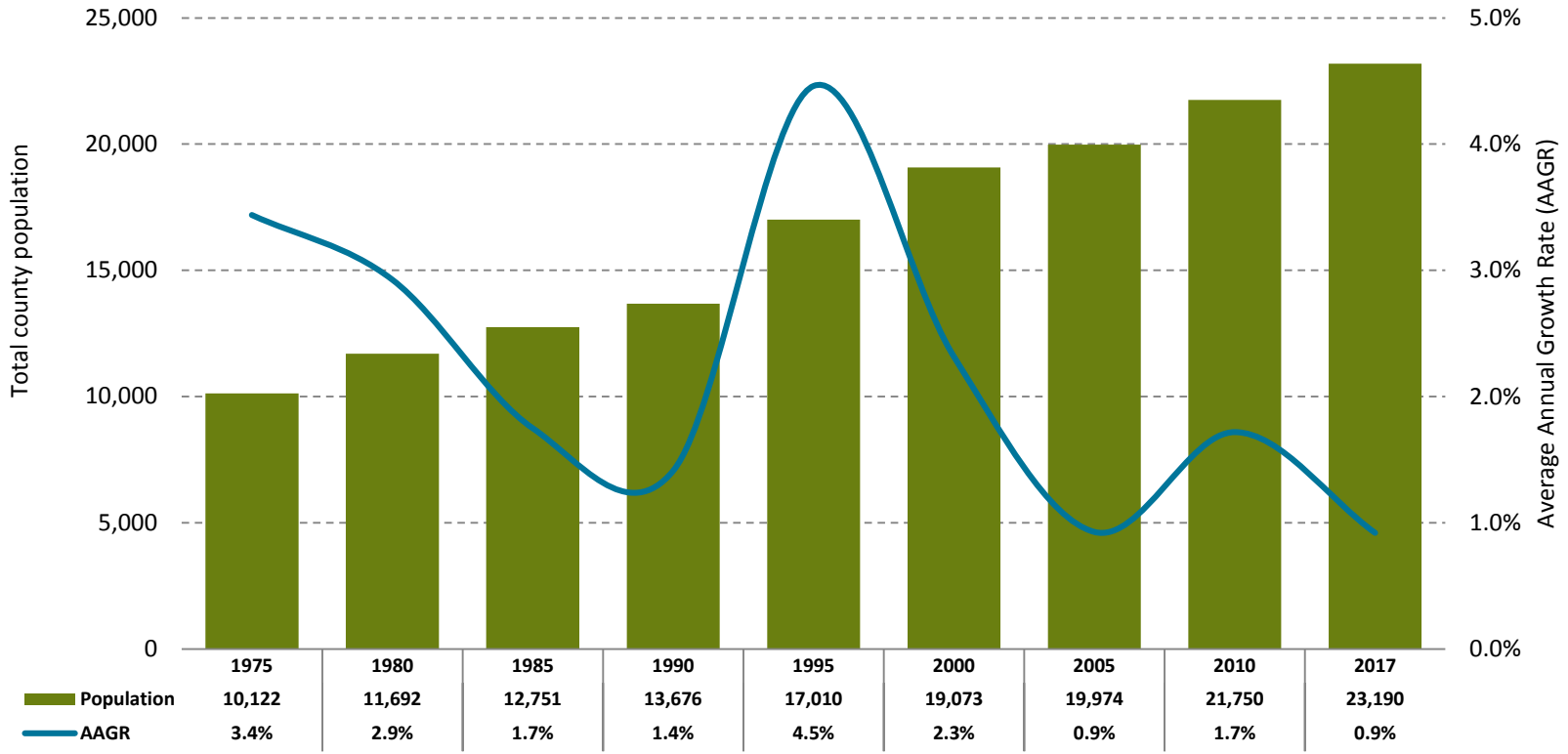
Note: For simplicity each UGB is referred to by its primary city's name.

Local Input and Additional Information

- Questions?
- Discussion time

Additional Historical Trends: Jefferson County

Jefferson 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.

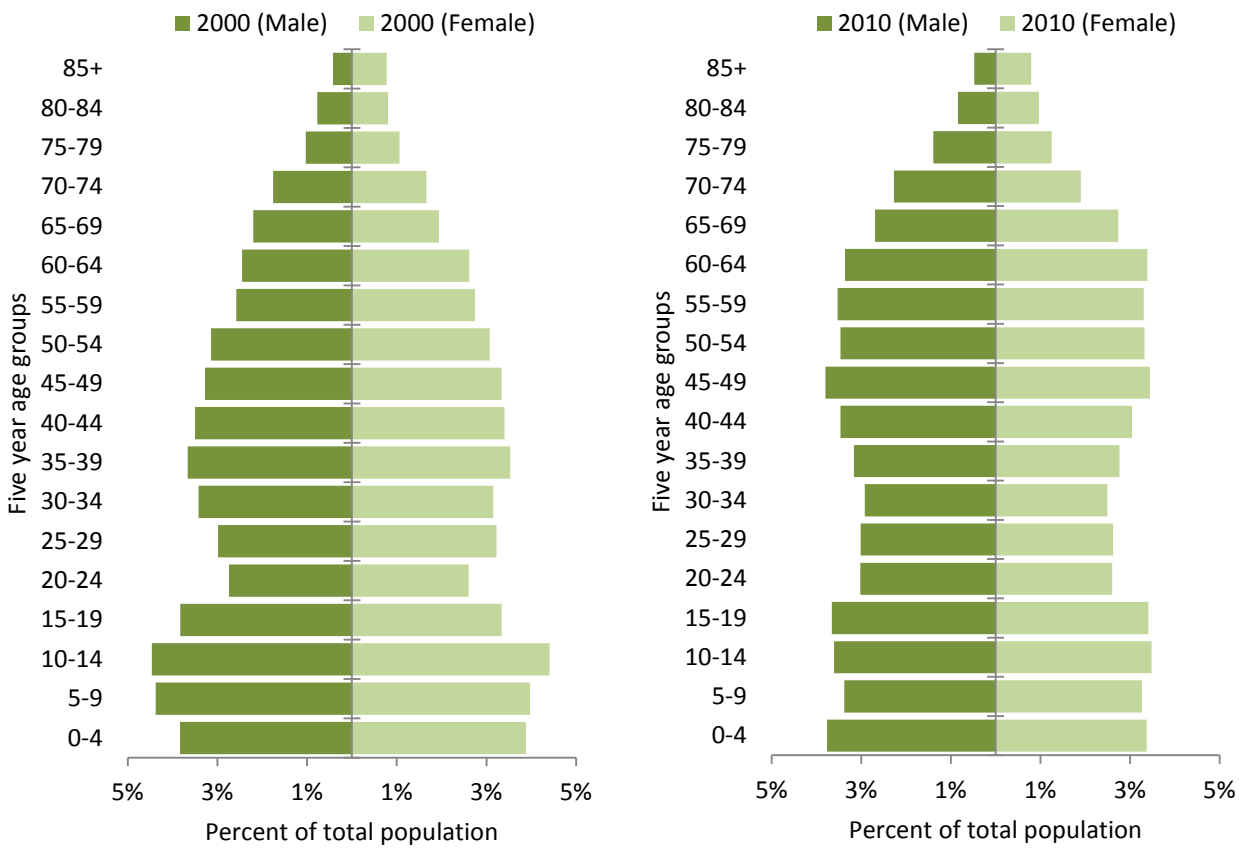
County and Sub-Areas—Population and Average Annual Growth Rate (AAGR) (2000-2010)

	2000	2010	AAGR (2000-2010)	Share of County 2000	Share of County 2010	Change (2000-2010)
<i>Jefferson County</i>	19,073	21,750	1.3%	99.7%	99.9%	0.2%
Culver	802	1,357	5.4%	4.2%	6.2%	2.0%
Madras	6,470	6,987	0.8%	33.9%	32.1%	-1.8%
Metolius	646	732	1.3%	3.4%	3.4%	0.0%
Outside UGBs	11,091	12,644	1.3%	58.1%	58.1%	0.0%

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

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

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

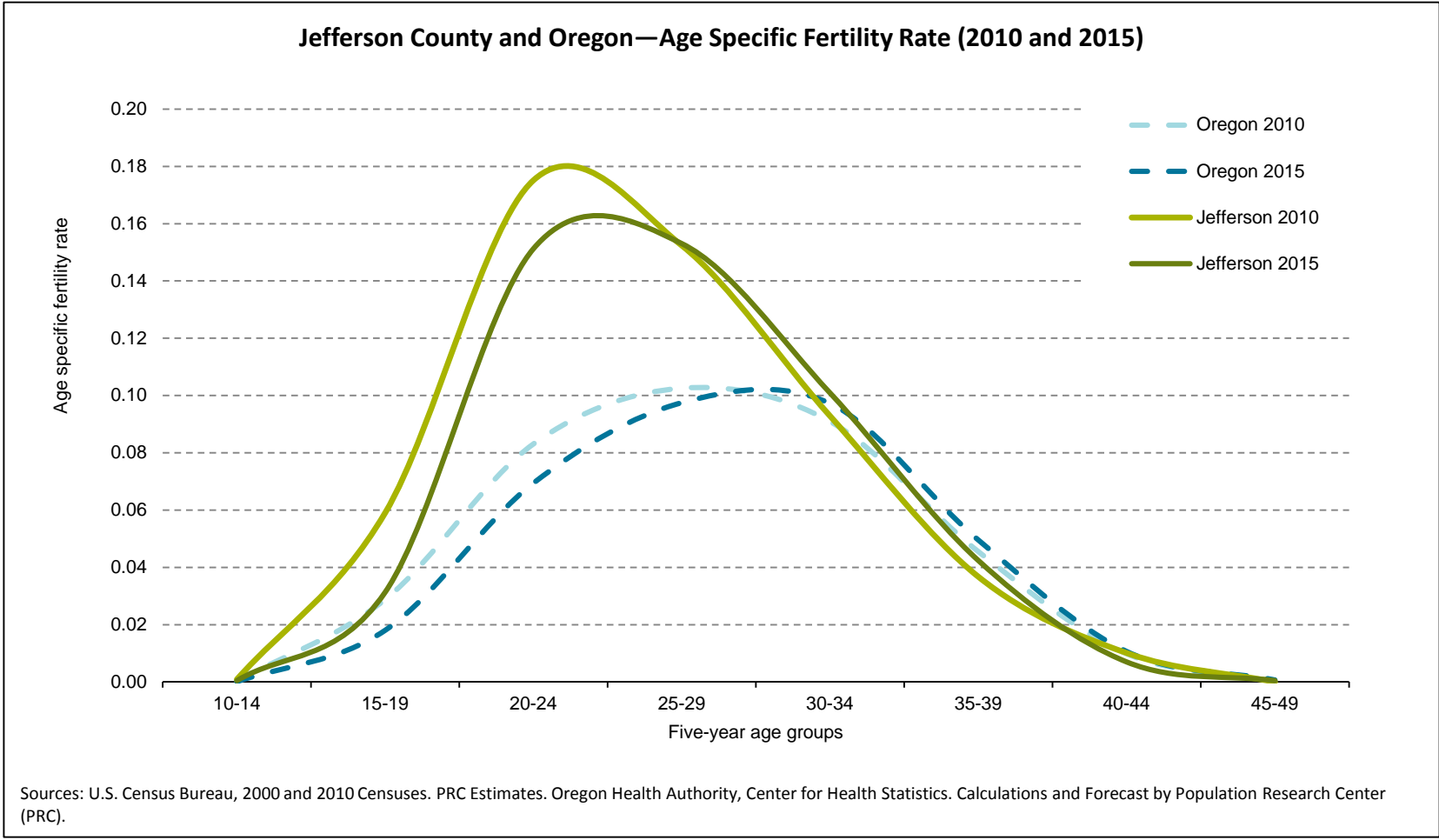


Sources: U.S. Census Bureau, 2000 and 2010 Censuses

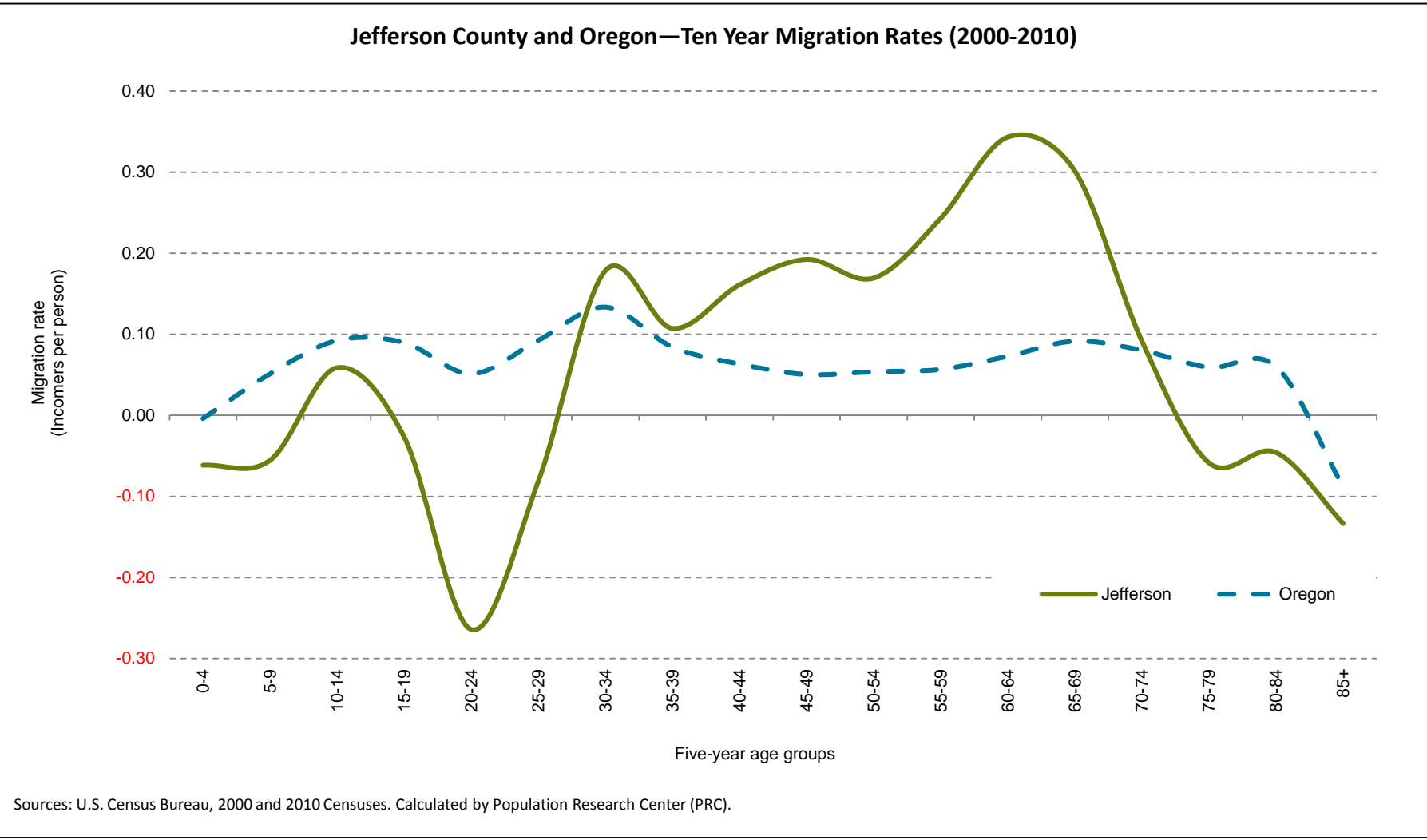
Jefferson County—Hispanic or Latino and Race (2000 and 2010)

Hispanic or Latino and Race	2000		2010		Absolute Change	Relative Change
<i>Total population</i>	19,009	100.0%	21,720	100.0%	2,711	14.3%
Hispanic or Latino	3,372	17.7%	4,195	19.3%	823	24.4%
Not Hispanic or Latino	15,637	82.3%	17,525	80.7%	1,888	12.1%
White alone	12,335	64.9%	13,429	61.8%	1,094	8.9%
Black or African American alone	43	0.2%	117	0.5%	74	172.1%
American Indian and Alaska Native alone	2,788	14.7%	3,360	15.5%	572	20.5%
Asian alone	54	0.3%	83	0.4%	29	53.7%
Native Hawaiian and Other Pacific Islander alone	28	0.1%	23	0.1%	-5	-17.9%
Some Other Race alone	11	0.1%	34	0.2%	23	209.1%
Two or More Races	378	2.0%	479	2.2%	101	26.7%

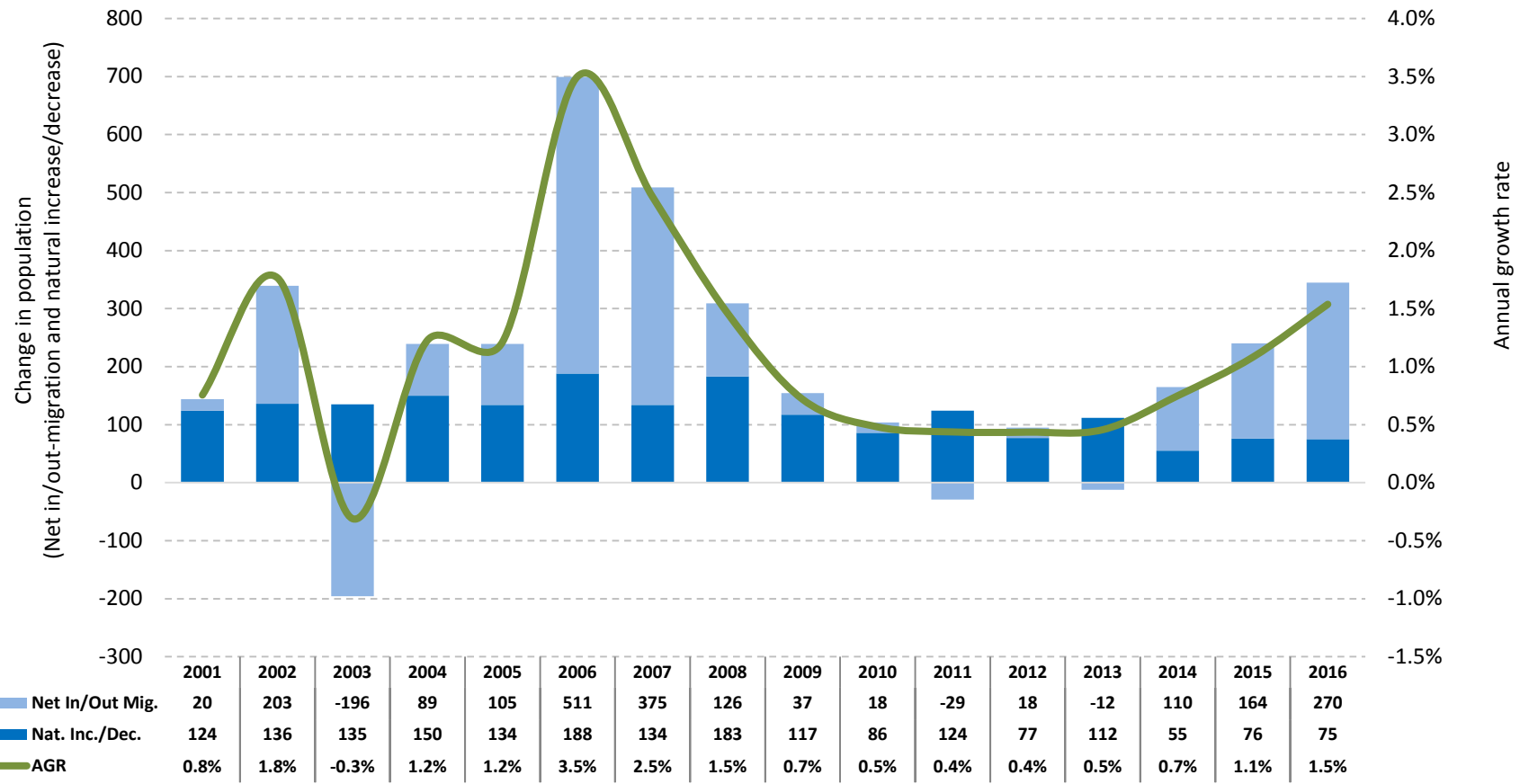
Sources: U.S. Census Bureau, 2000 and 2010 Censuses.



Total Fertility Rate (TFR)		
	2000	2010
Jefferson County	2.76	2.64
Oregon	1.98	1.81



Jefferson 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).

Jefferson 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>Jefferson County</i>	8,319	9,815	1.7%	100.0%	100.0%	0.0%
Culver	275	482	5.8%	3.3%	4.9%	1.6%
Madras	2,465	2,970	1.9%	29.6%	30.3%	0.6%
Metolius	224	304	3.1%	2.7%	3.1%	0.4%
Outside UGBs	5,355	6,059	1.2%	64.4%	61.7%	-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.

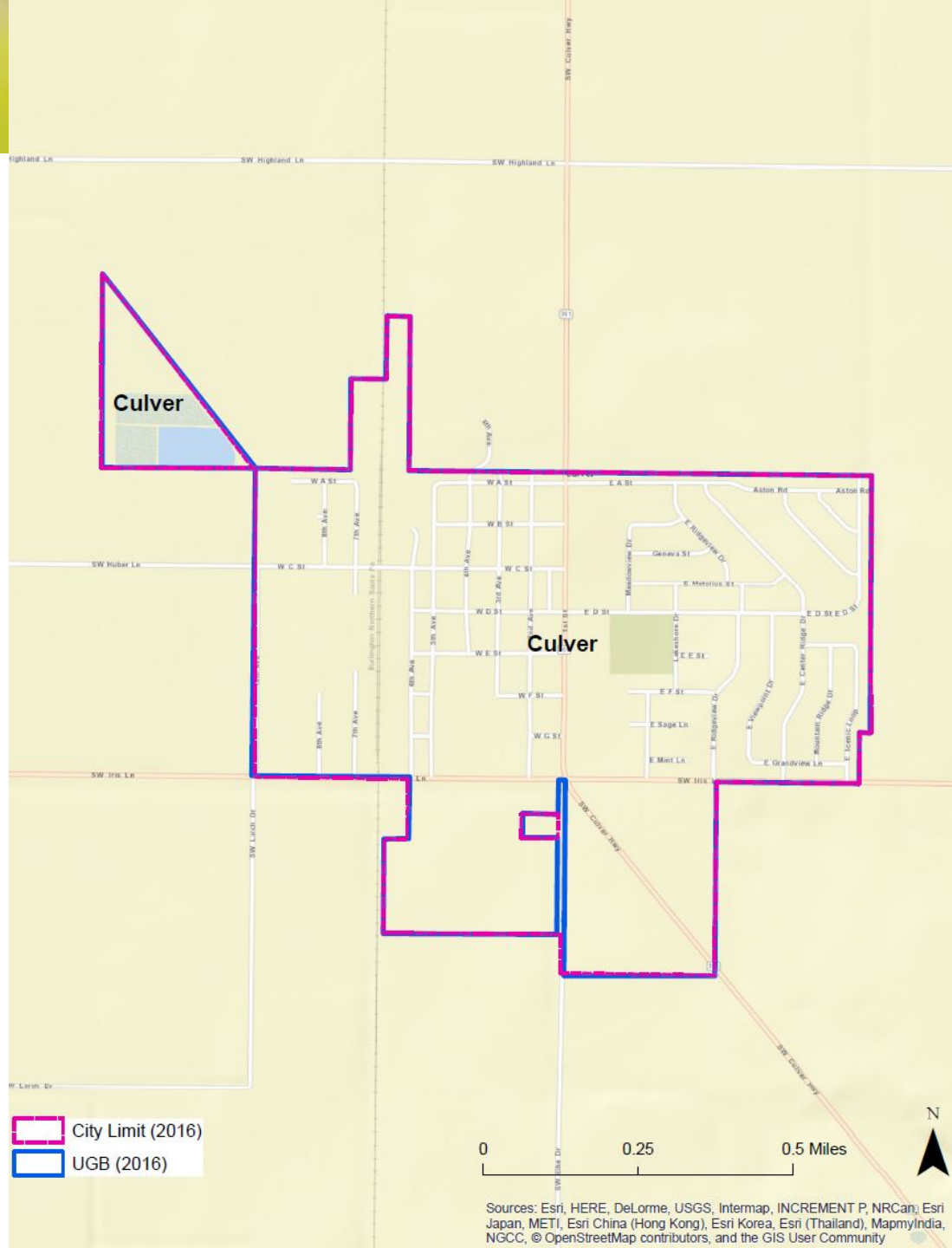
Jefferson County and Sub-Areas—Persons Per Household (PPH) and Occupancy Rate (2000 and 2010)



	Persons Per Household (PPH)			Occupancy Rate		
	2000	2010	Change 2000-2010	2000	2010	Change 2000-2010
<i>Jefferson County</i>	2.8	2.7	-4%	80.9%	79.4%	-1.5%
Culver	2.8	3.1	11%	92.4%	90.5%	-1.9%
Madras	3.2	2.7	-15%	92.7%	85.9%	-6.8%
Metolius	2.8	2.6	-7%	97.3%	92.8%	-4.6%
Outside UGBs	3.0	2.6	-11%	74.1%	74.6%	0.5%

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.

Jefferson County UGBs

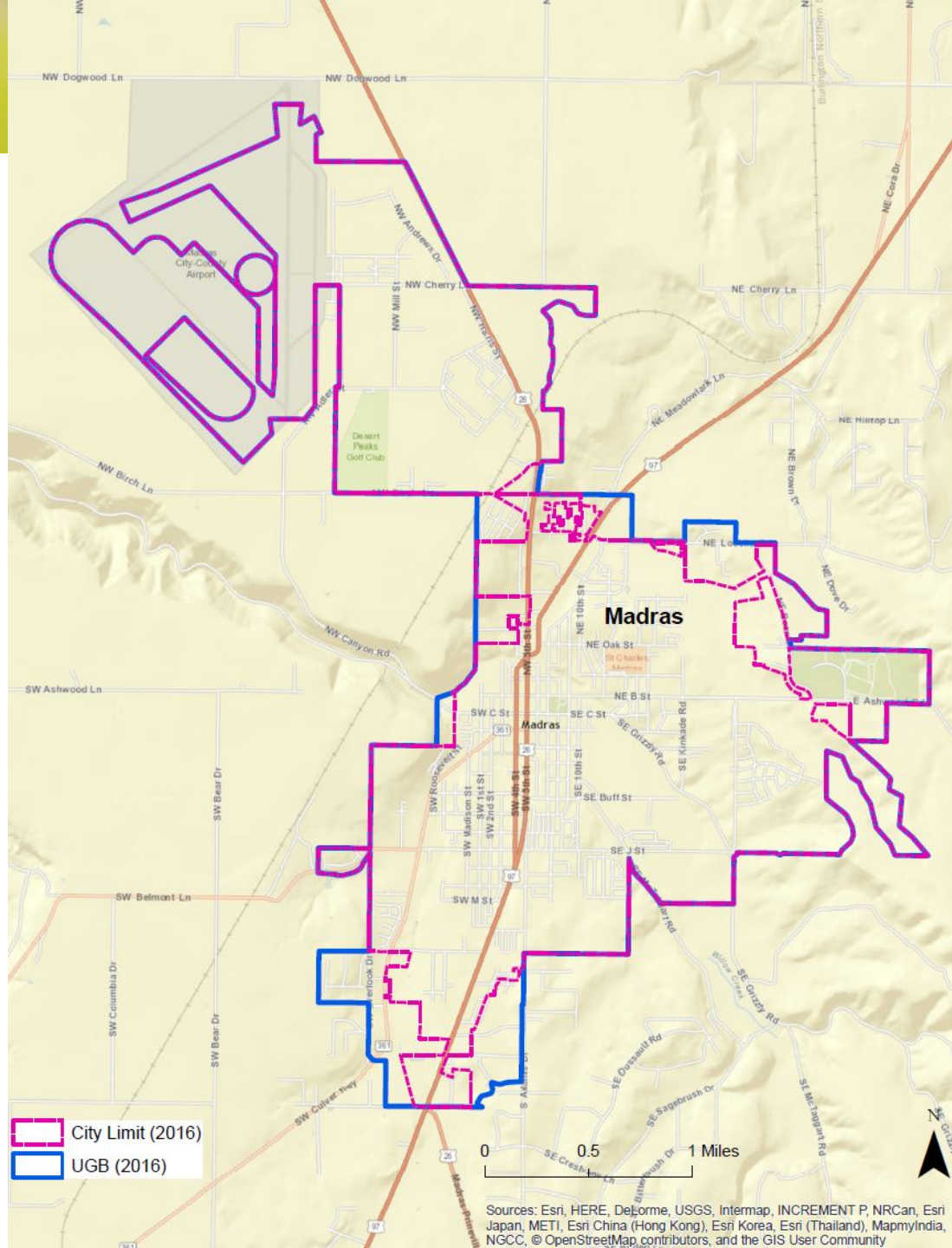


-  City Limit (2016)
-  UGB (2016)

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



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