

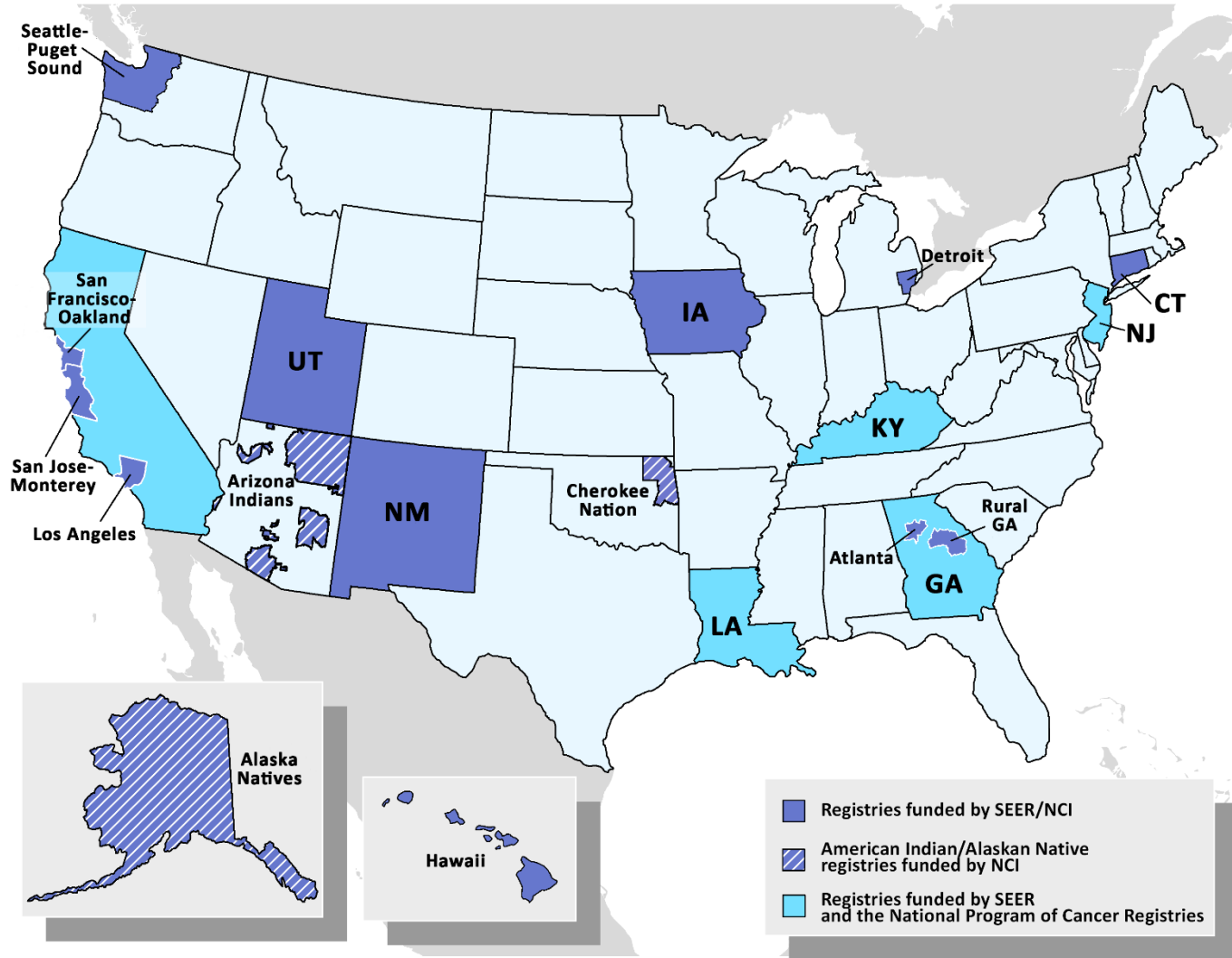
Community Environmental Working Group

Wednesday – December 18, 2019

New Mexico Tumor Registry

Public Health Surveillance for Cancer in the United States

is supported by the National Cancer Institute and
the Centers for Disease Control and Prevention



The New Mexico Tumor Registry conducts population-based public health surveillance for cancer throughout New Mexico and for American Indian communities in Arizona

New Mexico Tumor Registry:

- Established in 1966
- Area of Coverage:
 - New Mexico Statewide*
 - Arizona American Indians*
 - ...in collaboration with the Arizona Cancer Registry and the Indian Health Service
- Founding member of the National Cancer Institute's SEER Program (1973)



Successful public surveillance for cancer is a multi-step process

Case-Finding

- Identifying incident cancer cases from a variety of information sources

Abstracting

- Collecting salient facts about the cancer experience in a systematic manner

Coding

- Summarizing information in standardized coding schemes facilitates data management, analysis, and interpretation

Editing

- Ensuring that cancer surveillance records are of the highest quality

Follow-Up

- Survival is a key metric in evaluation progress against cancer

Data Utilization

- Analysis, interpretation and dissemination of cancer surveillance data are the foundation for a broad spectrum of activities across the cancer control continuum

Population-based cancer registries obtain cancer information from many sources



Population-based cancer registries document a variety of characteristics for each cancer case

Patient

- Personal identifiers, sex, ancestry, age, place of residence

Cancer

- Anatomic site, histology, behavior, grade, stage, selected markers

Therapy

- Surgery, radiation, chemotherapy, hormones, other modalities

Care Provider

- Physicians, hospitals

Outcome

- Vital status, survival time, cause-of-death

Cancer Concerns Work Group Assessment



A multi-disciplinary team

New Mexico Cancer Concerns Work Group Assessment

work group response to a
cancer concern request
submitted by

Corrales Residents for Clean Air and Water

September 2019

A product of the
New Mexico Cancer Concerns Work Group
New Mexico Department of Health
New Mexico Tumor Registry

<https://nmtracking.org/health/cancer/CancerConcernsWorkgroup.html>

Table 1
Fourteen Census Tracts in the Investigation Area of Concern

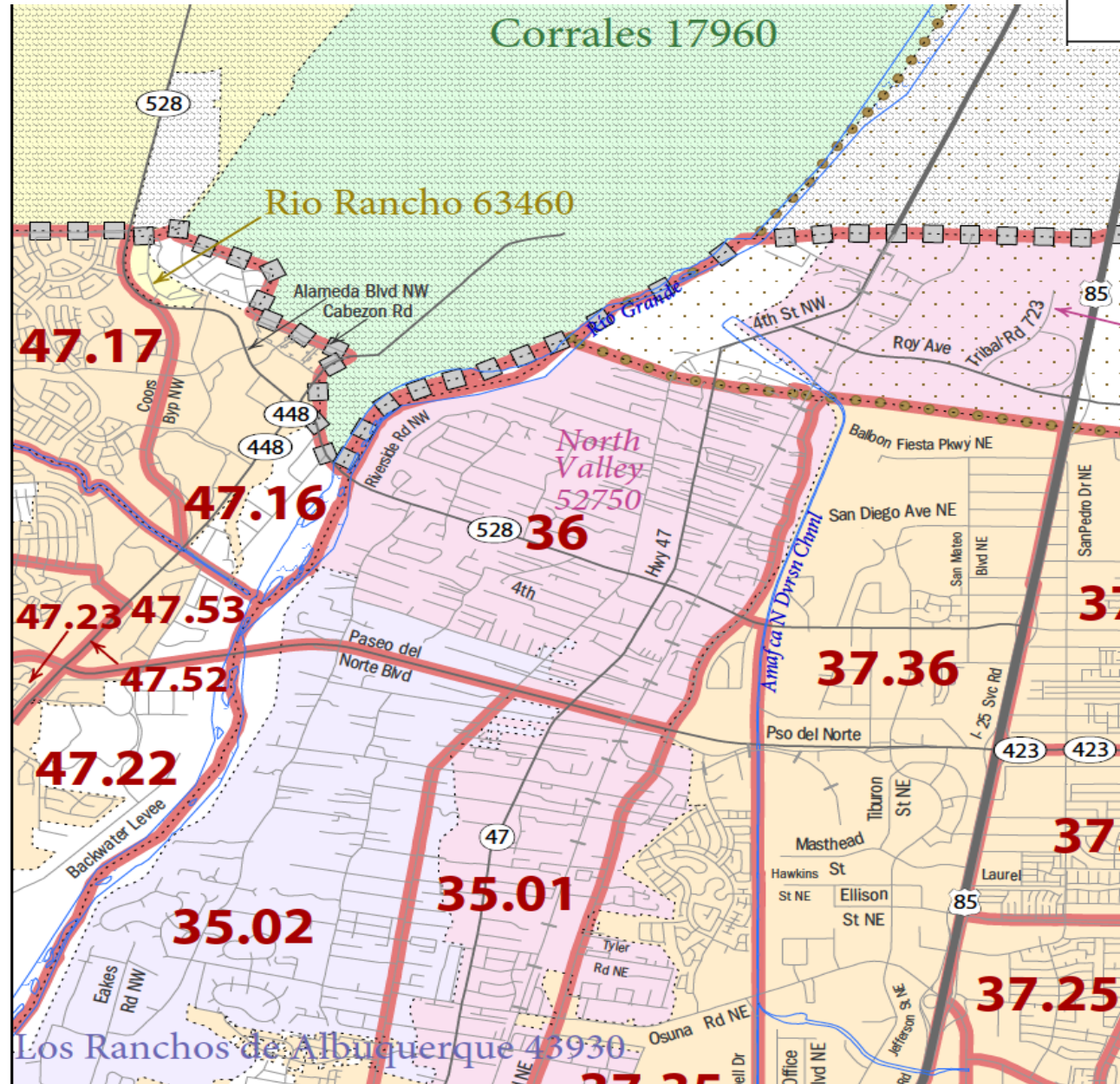
New Mexico County	Census Tract (2010 US Decennial Census*)	2015 Estimated Population
Sandoval	0106.01	4,483
	0106.02	4,158
	0107.05	6,254
	0107.14	4,936
	0107.15	3,736
	0107.16	6,099
	0107.19	4,085
	0107.20	8,105
Bernalillo	0036.00	6,225
	0047.16	2,063
	0047.17	7,798
	0047.23	7,410
	0047.52	3,852
	0047.53	3,656
TOTAL	N/A	72,860

** Census tract boundary definitions are from the 2010 US Decennial Census*

*** Population estimates were obtained from the New Mexico Indicator-Based Information System (available on-line from the following URL: <https://ibis.health.state.nm.us/>) and are derived from US Census Bureau figures.*

Bernalillo County

Bernalillo	0036.00
	0047.16
	0047.17
	0047.23
	0047.52
	0047.53



Sandoval County

Sandoval	0106.01
	0106.02
	0107.05
	0107.14
	0107.15
	0107.16
	0107.19
	0107.20

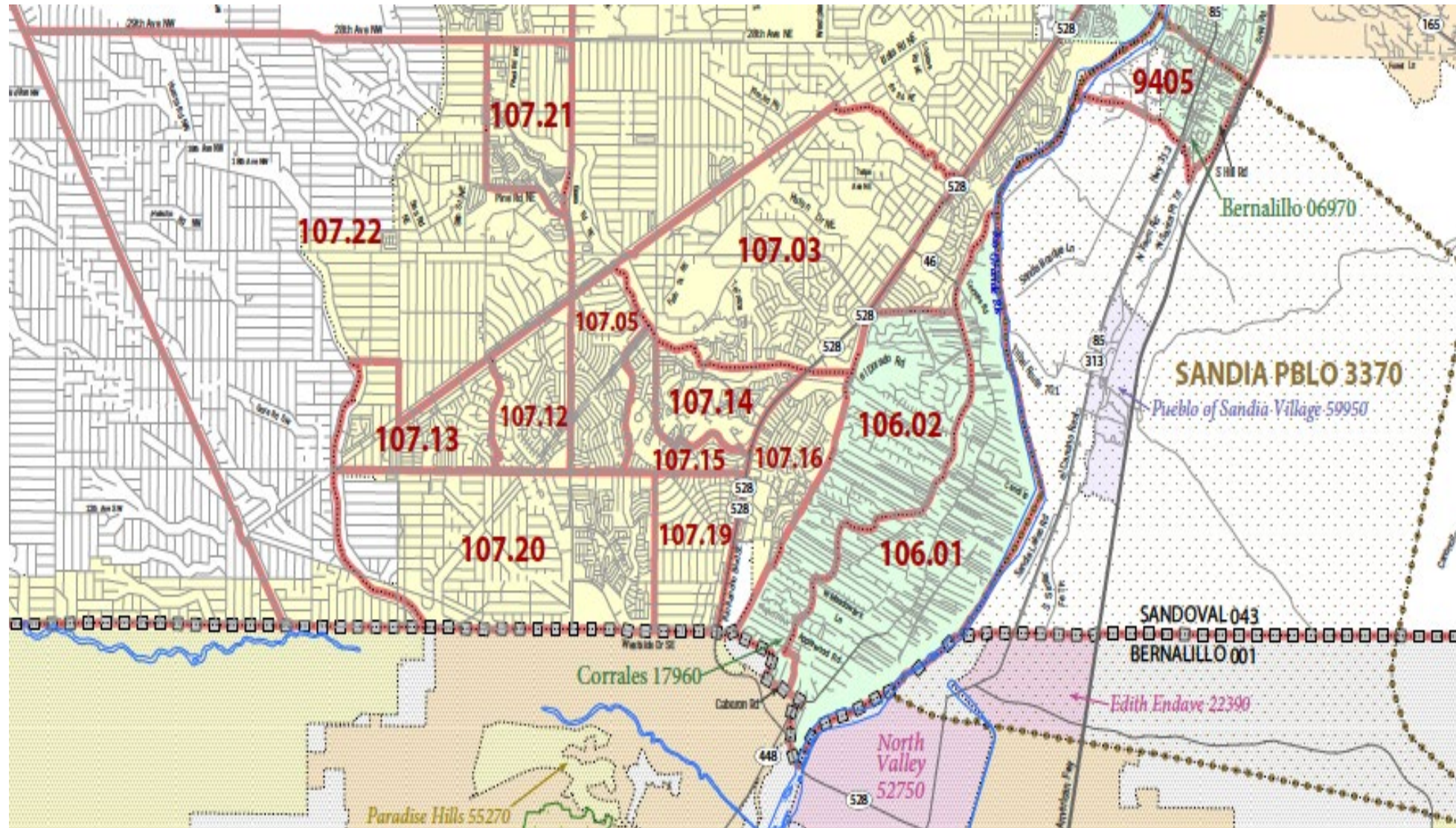


Figure 1
Observed-to-Expected (O/E) Ratios and Corresponding 95% Confidence Intervals (CI)
By Type of Cancer for Residents of the Fourteen-Tract Investigation Area

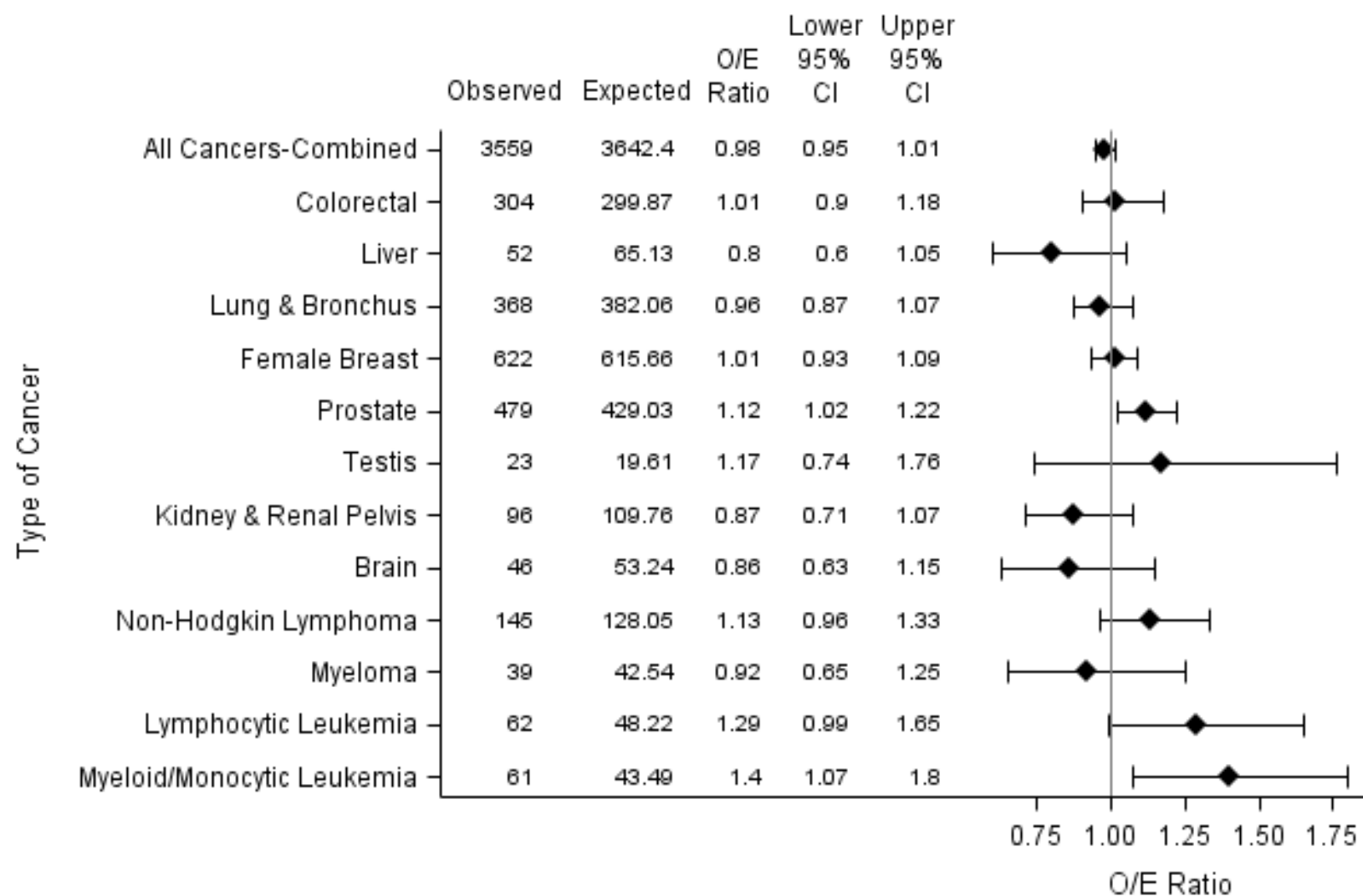


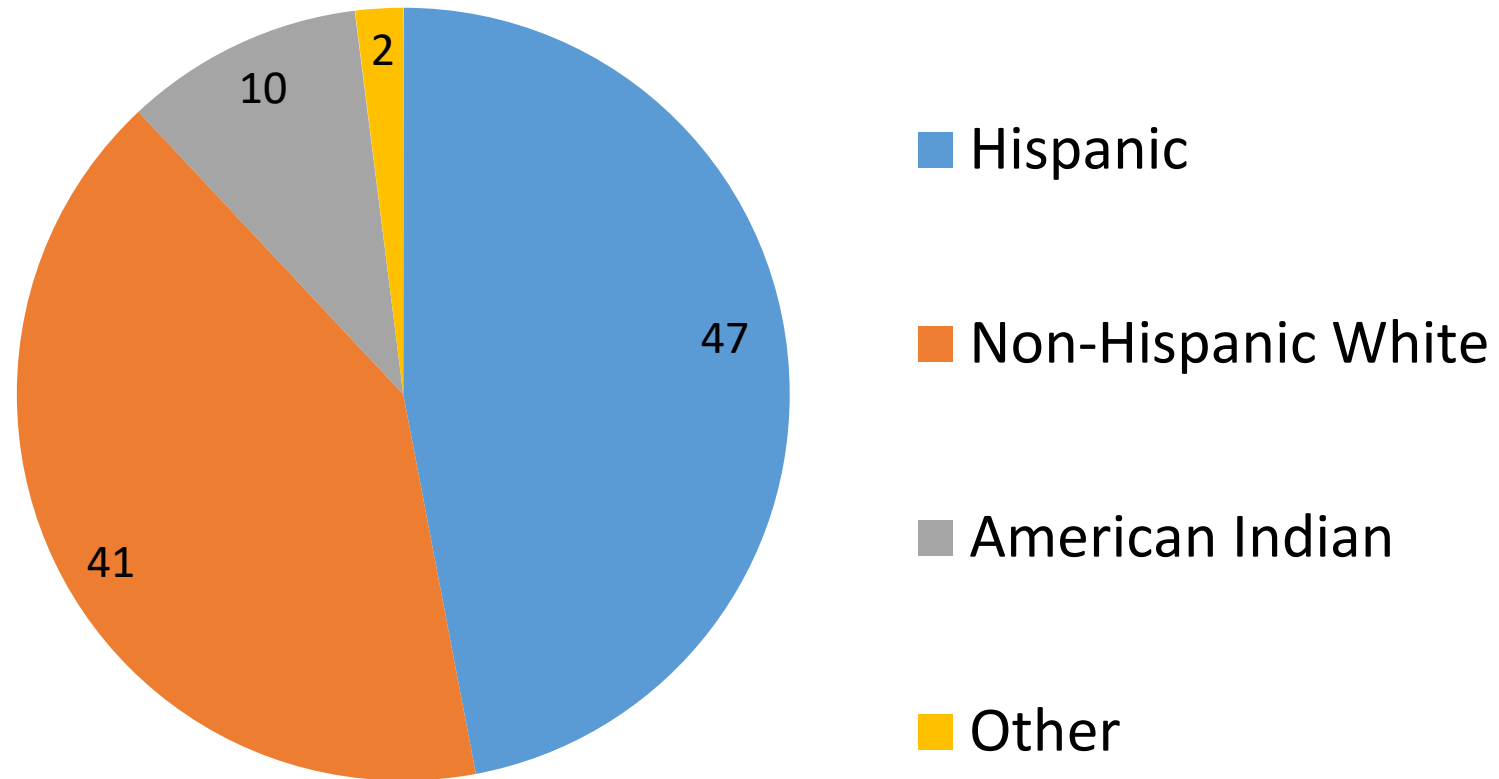
Table 2.
Enumeration of Incident Myeloid and Monocytic Leukemia Cases
in the 14-Tract Investigation Area by Year of Diagnosis, 2006-2015

Diagnosis Year	Number of Cases
2006	13
2007	8
2008	7
2009	6
2010	3
2011	5
2012	2
2013	3
2014	10
2015	4

Measuring the Occurrence of Cancer

Percent Distribution of New Mexico Residents by Ancestry

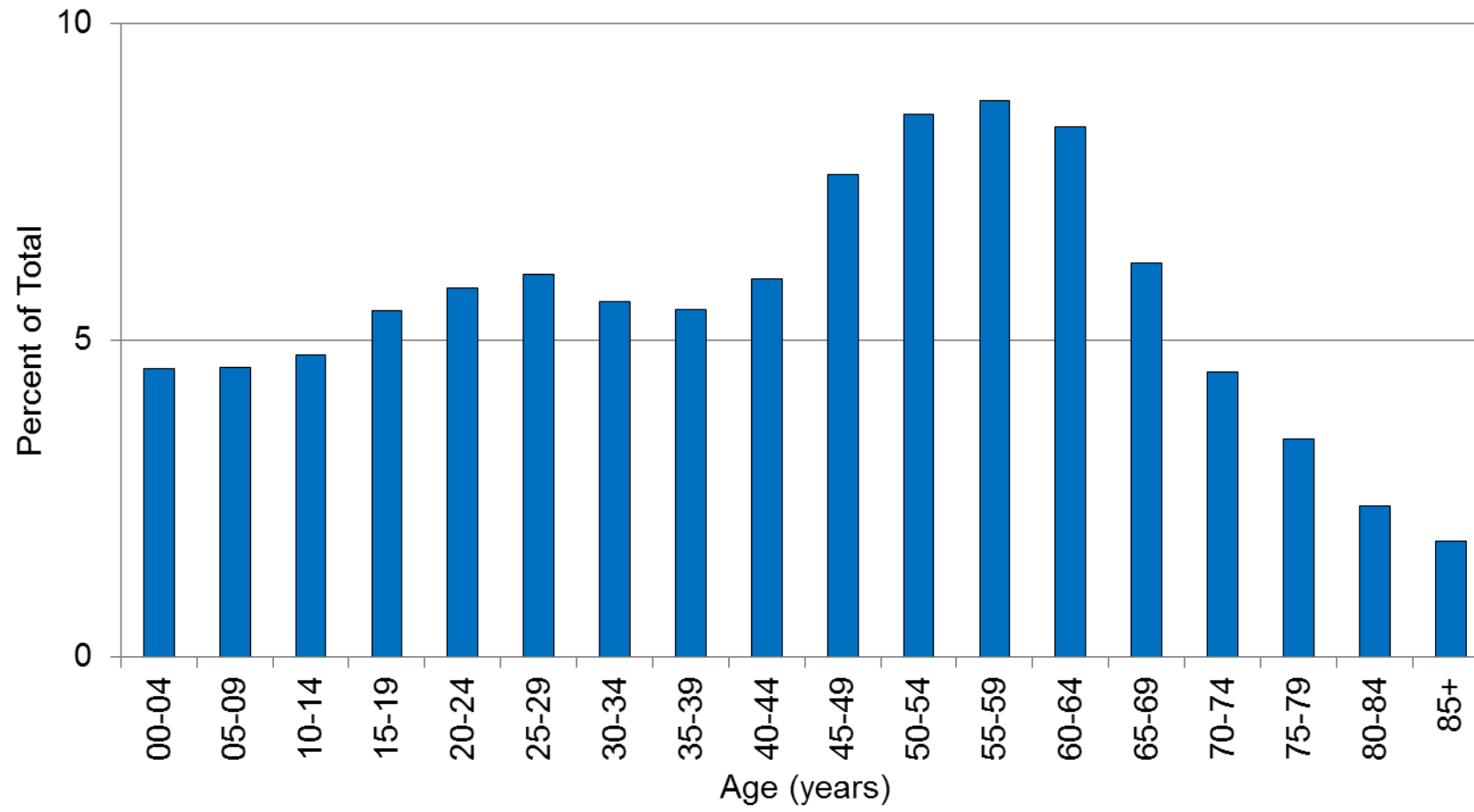
2010 US Census



New Mexico Non-Hispanic White Males

Age distribution of population (percent)

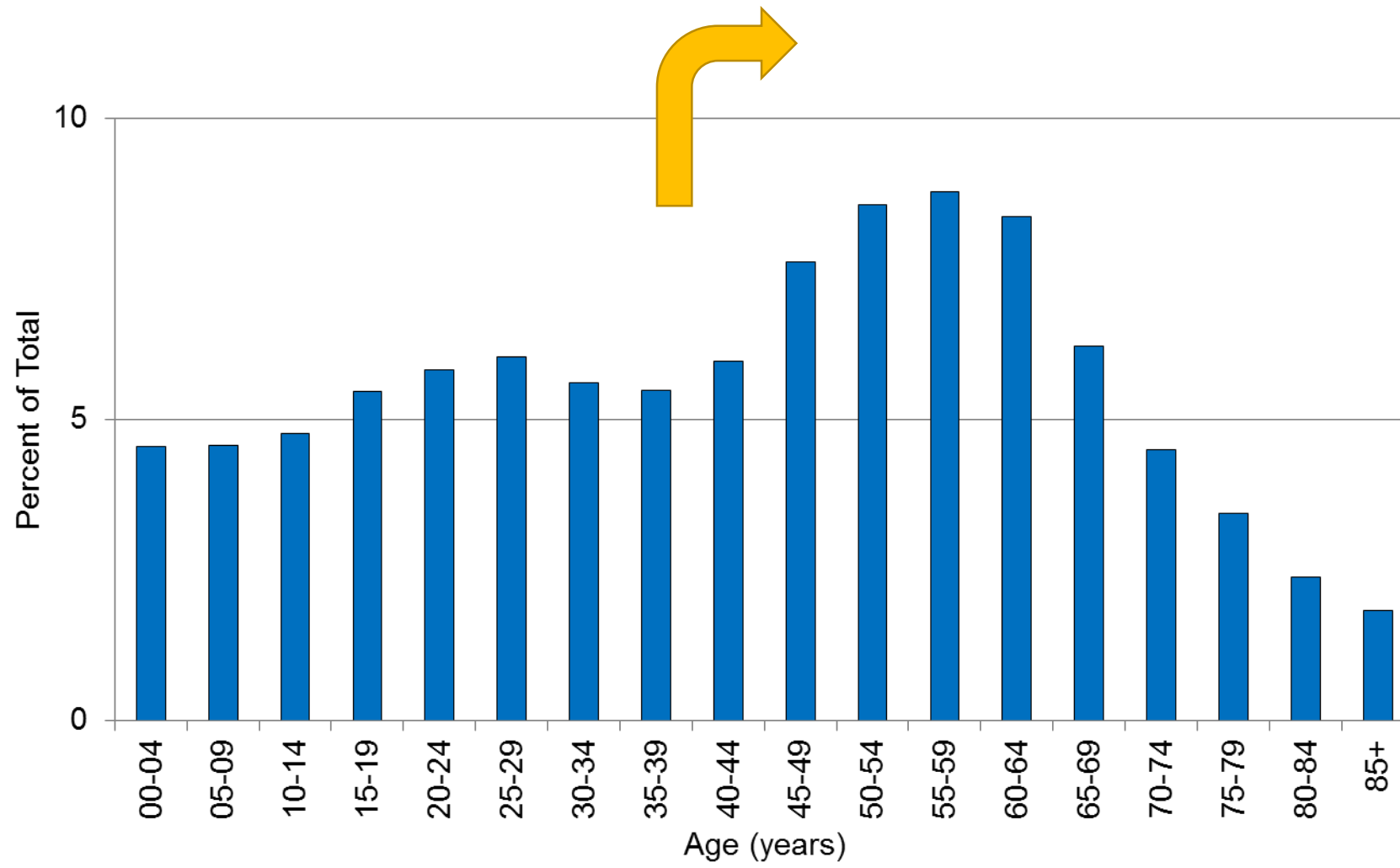
2010 US Decennial Census



New Mexico Non-Hispanic White Males

Age distribution of population (percent)

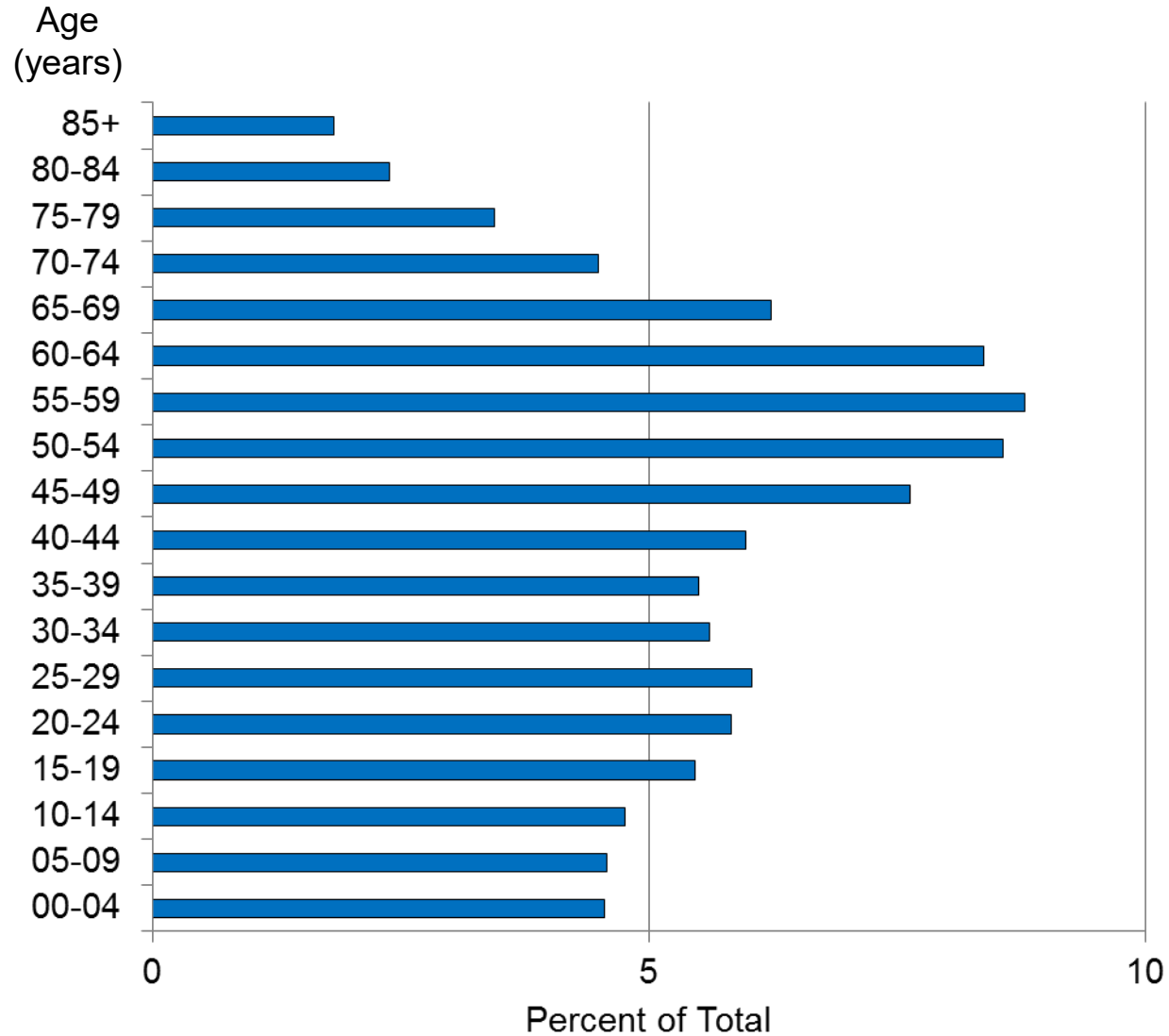
2010 US Decennial Census



New Mexico Non-Hispanic White Males

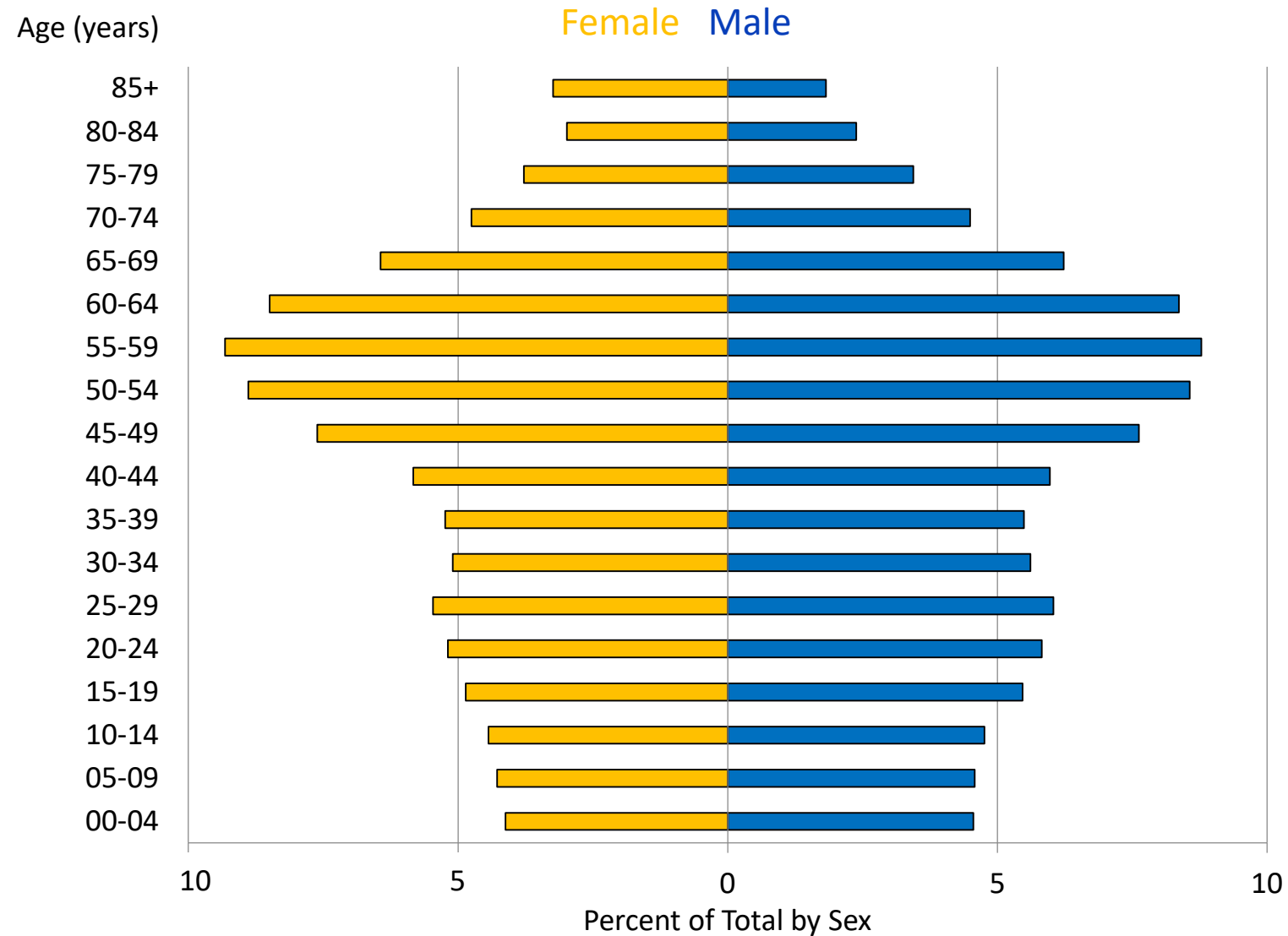
Age distribution of population (percent)

2010 US Decennial Census



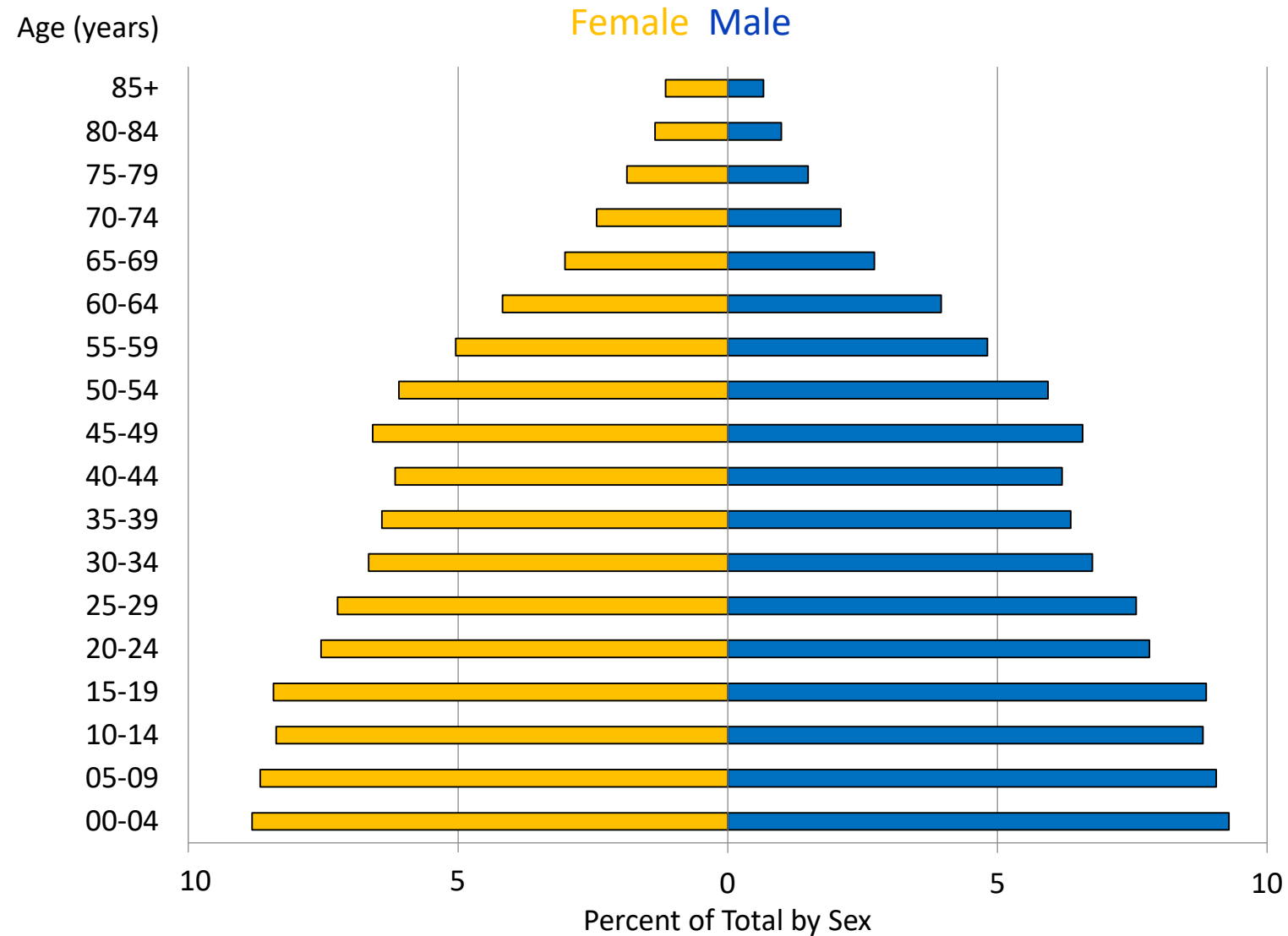
New Mexico Non-Hispanic Whites

Age distribution of population by sex (percent)
2010 US Decennial Census



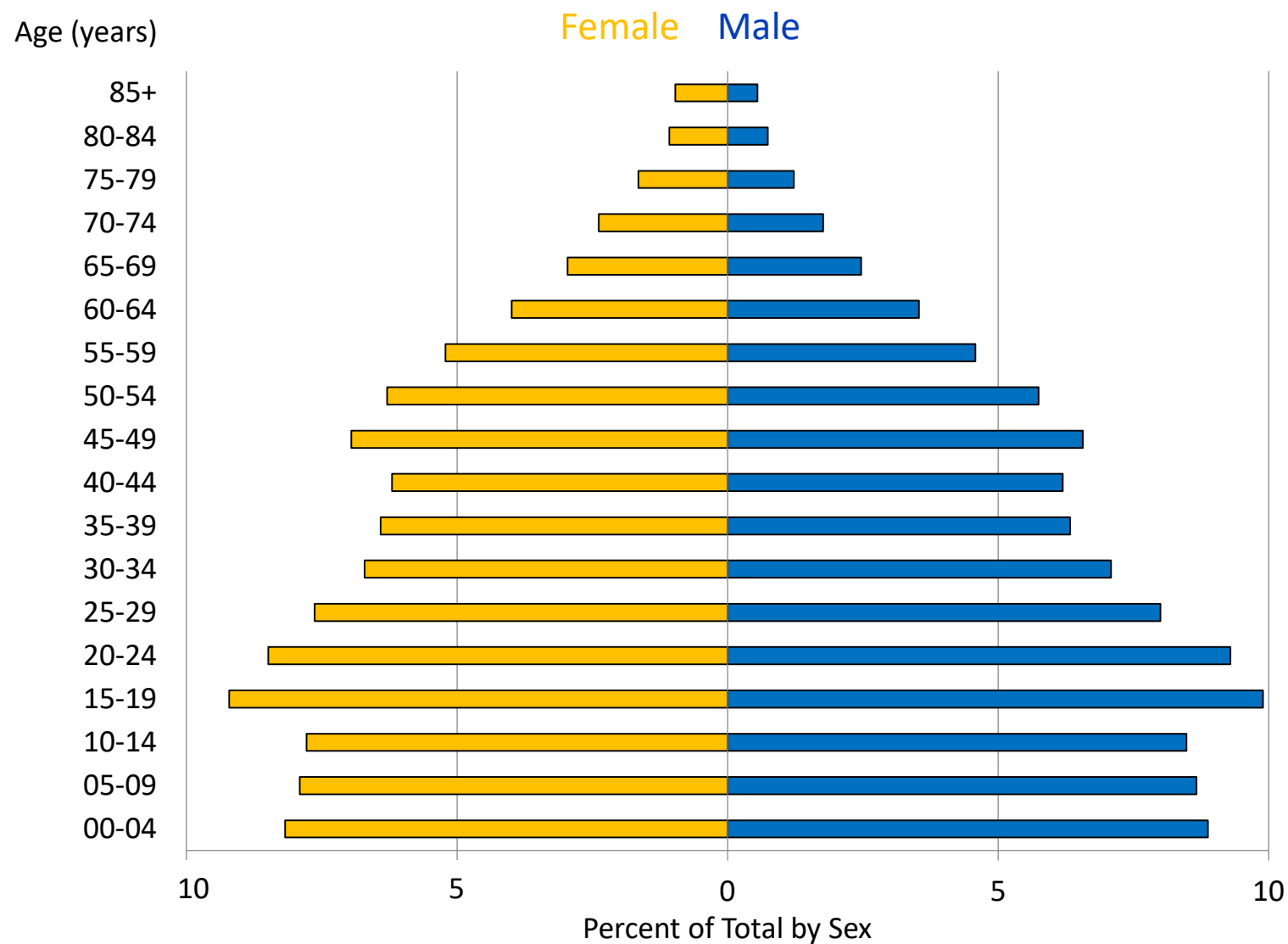
New Mexico Hispanics

Age distribution of population by sex (percent)
2010 US Decennial Census



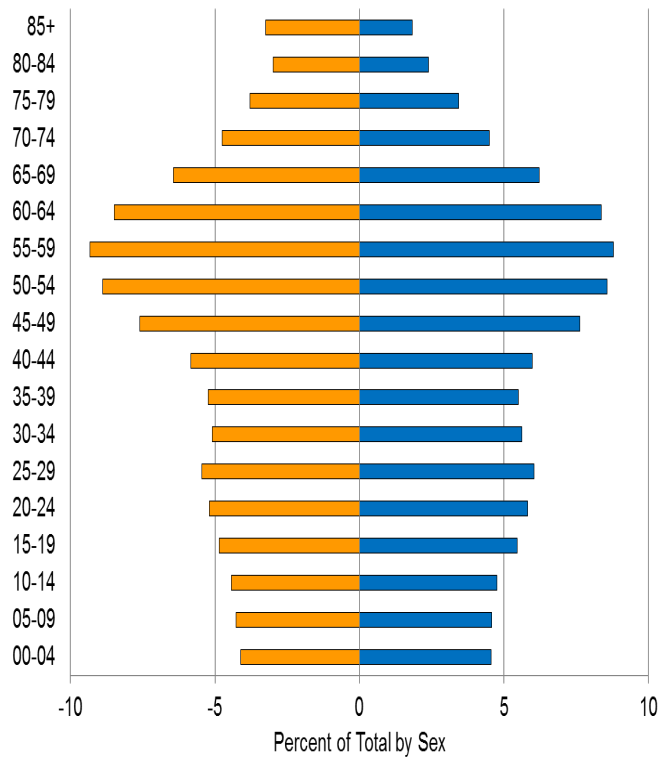
New Mexico American Indians

Age distribution of population by sex (percent)
2010 US Decennial Census

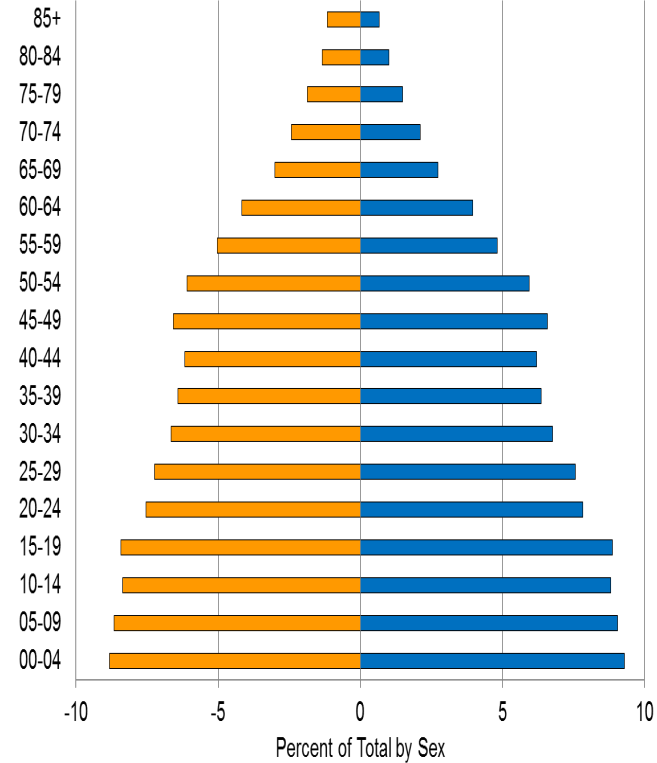


Age distributions for New Mexico's three largest race/ethnic groups

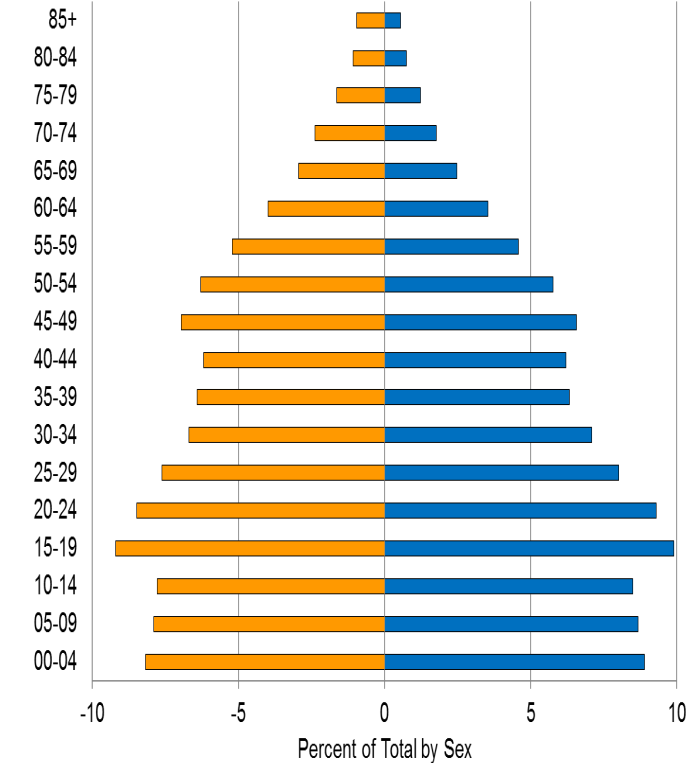
Non-Hispanic White



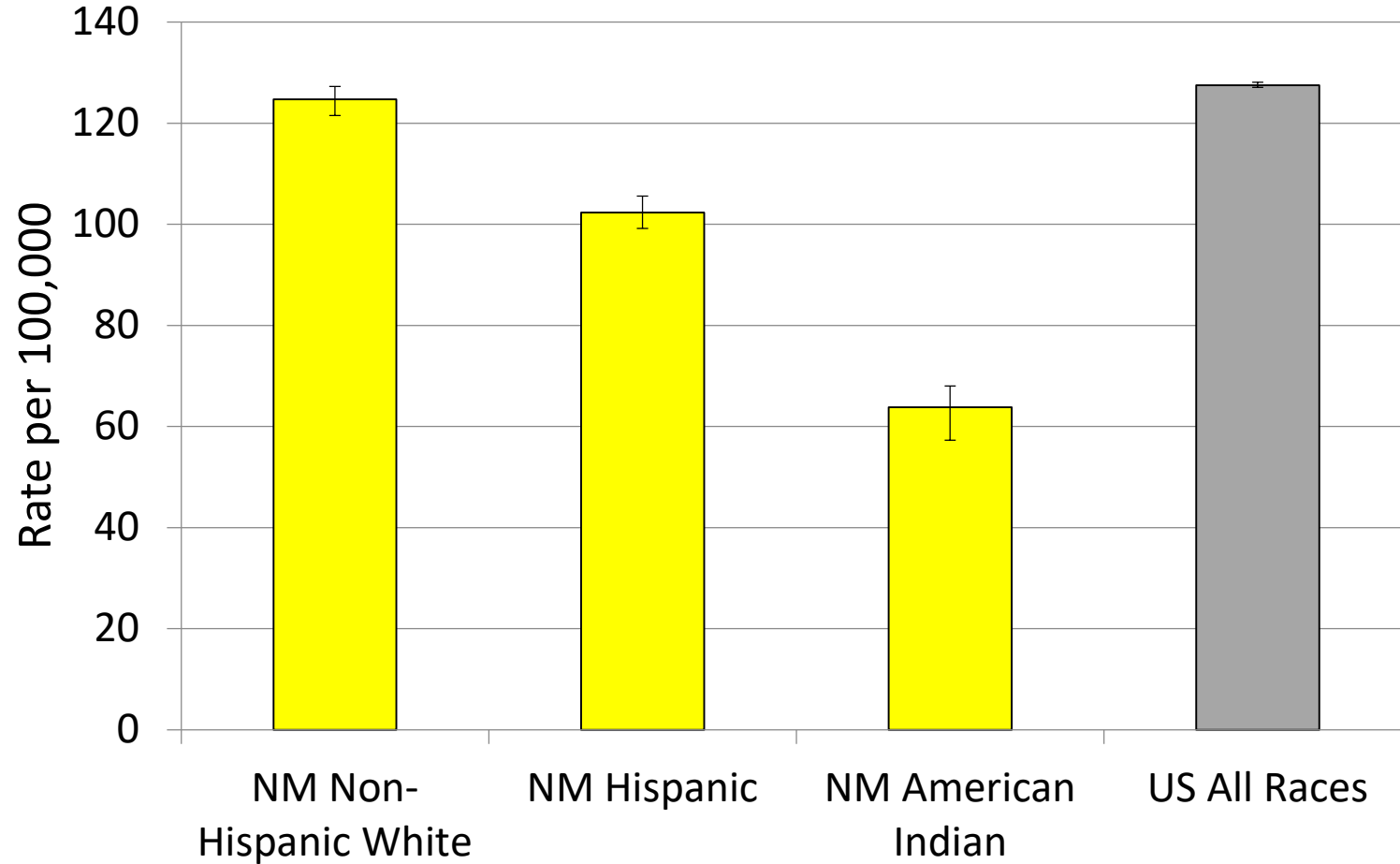
Hispanic



American Indian



Female breast cancer rates vary by ancestry in New Mexico

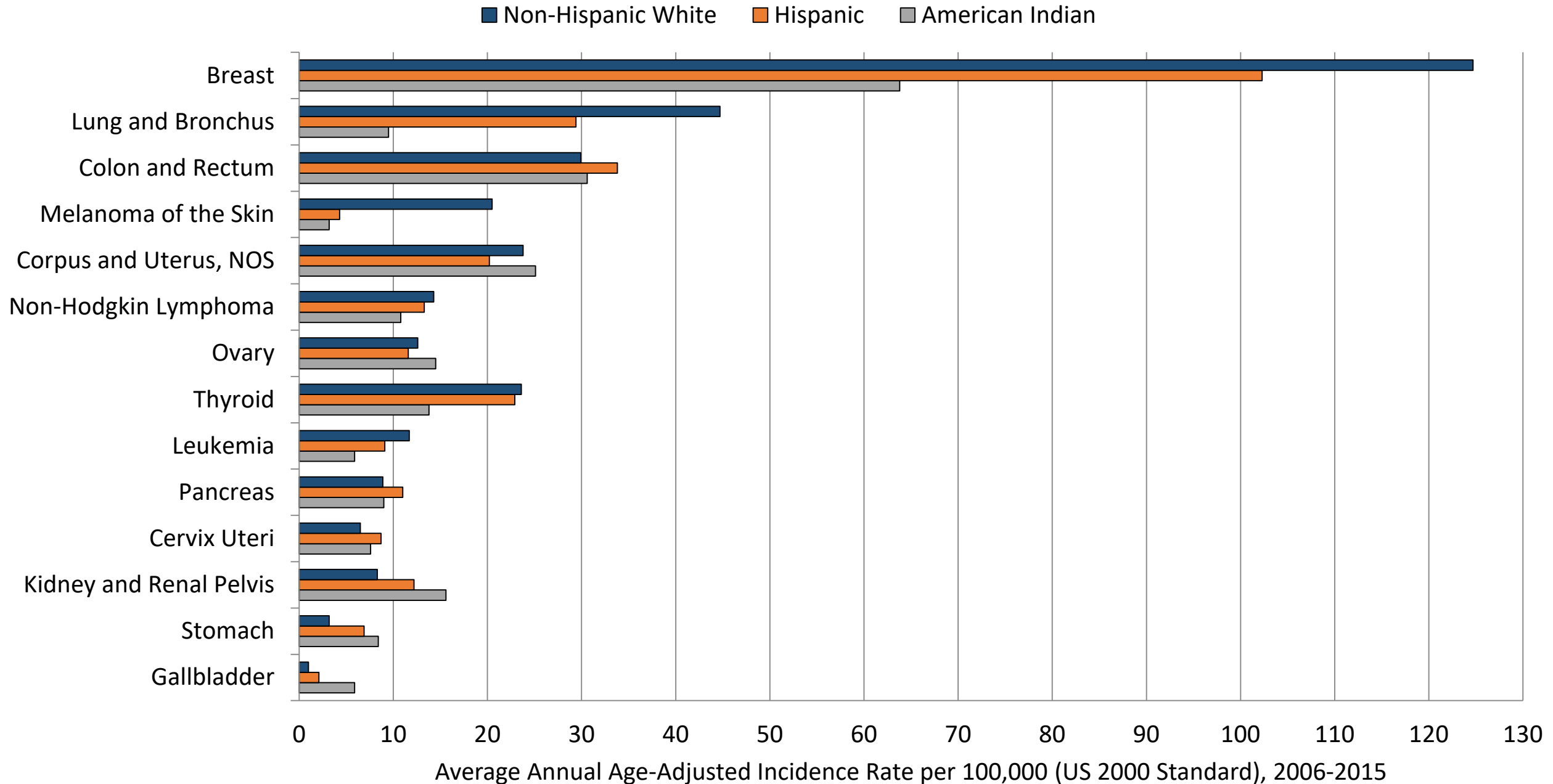


- Average annual age-adjusted incidence rates (US 2000 Standard)
- New Mexico & US residents (SEER Program), 2006-2015
- Sources: New Mexico Tumor Registry & SEER Program

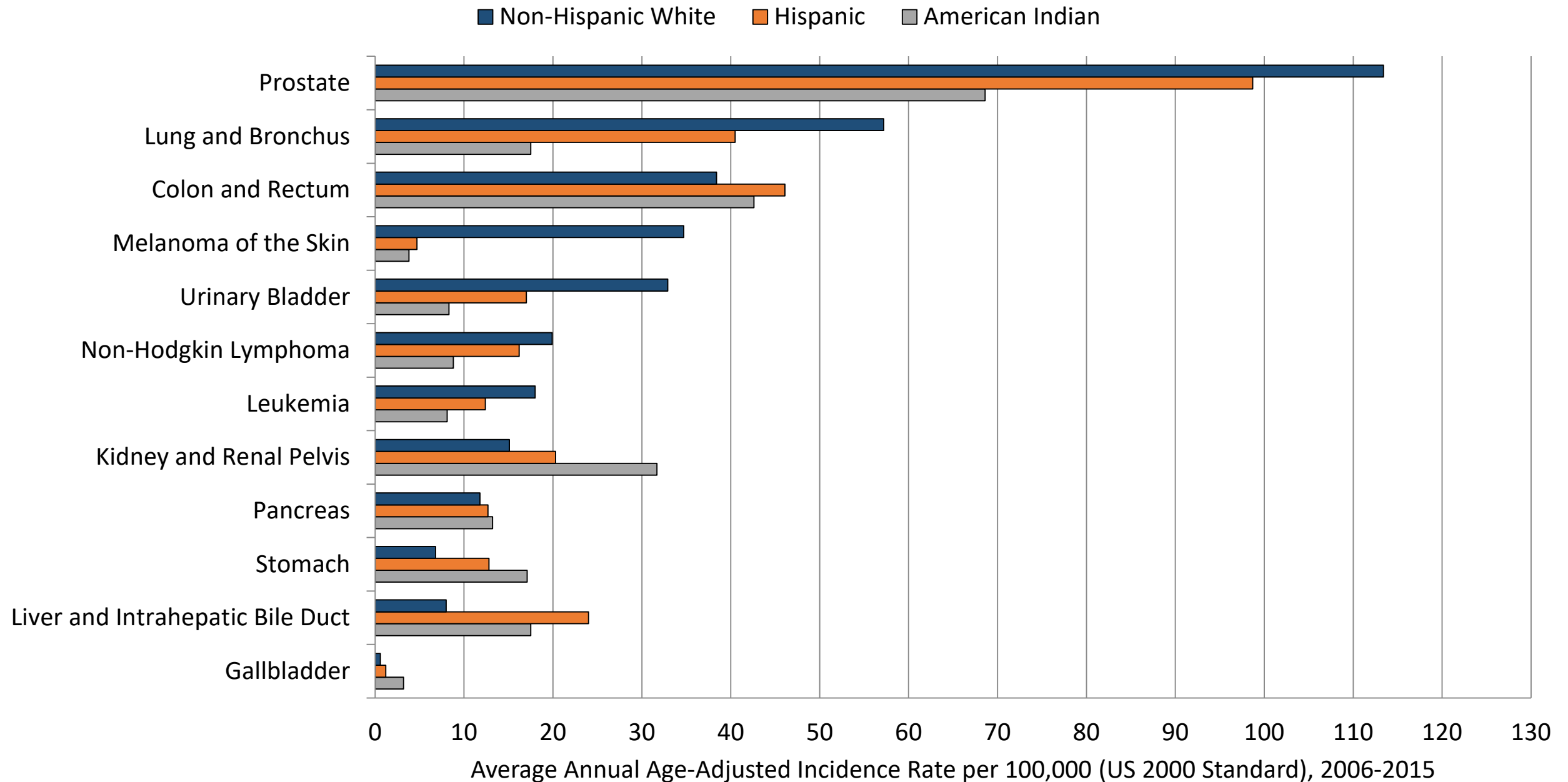
“Every calculation based on experience elsewhere, fails in New Mexico.”

Lew A. Wallace, New Mexico Territorial Governor, 1878-1881

Cancer incidence rates vary by race/ethnicity among women in New Mexico



Cancer incidence rates vary by race/ethnicity among men in New Mexico



Overview of calculations leading to the observed-to-expected ratio

Age (Years)	Statewide Incidence Rate	Population Of Interest	Number of Years in Study Period	Expected Number of Cases	Observed Number of Cases (REGISTRY)
00-04	Rate-1	Pop-1	10	Expect-1	Obs-1
05-09	Rate-2	Pop-2	10	Expect-2	Obs-2
10-14	Rate-3	Pop-3	10	Expect-3	Obs-3
15-19	Rate-4	Pop-4	10	Expect-4	Obs-4
<i>... and so forth</i>					
75-79	Rate-16	Pop-16	10	Expect-16	Obs-16
80-84	Rate-17	Pop-16	10	Expect-17	Obs-17
85+	Rate-18	Pop-18	10	Expect-18	Obs-18
Total	-	-		Sum/Total	Sum/Total

All by:

- Ancestry (4)
 - *Non-Hispanic White*
 - *Hispanic*
 - *American Indian*
 - *Other*
- Census Tract (14)
 - *Sandoval (8)*
 - *Bernalillo (6)*
- Type of Cancer (13)
 - *All Cancers Combined*
 - *12 Individual Cancers*

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