



The Medium-Term Labor Market Returns to Community College Awards: Evidence From North Carolina

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North Carolina Labor Market

- July 2014 unemployment rate 6.5% (US: 6.2%)
- Seasonally adjusted labor force 4,670,000
 - Employed 4,370,000
- Major industries
 - Trade, Transportation & Utilities (780,000)
 - Government (700,000)
 - Professional & Business Services (590,000)
 - Education & Health Services (560,000)

Existing Evidence:

Labor Market Gains from Community College

- Earnings premium for associate degree over a high school diploma is 13% (men) and 21% (women)
- Some earning gains from credits or years of study
- Mixed earnings gains across different subjects of study
 - Higher for quantitative or technical-vocational courses
- Minimal research on
 - Certificate awards
 - Looking across different cohorts or follow-up period for earnings

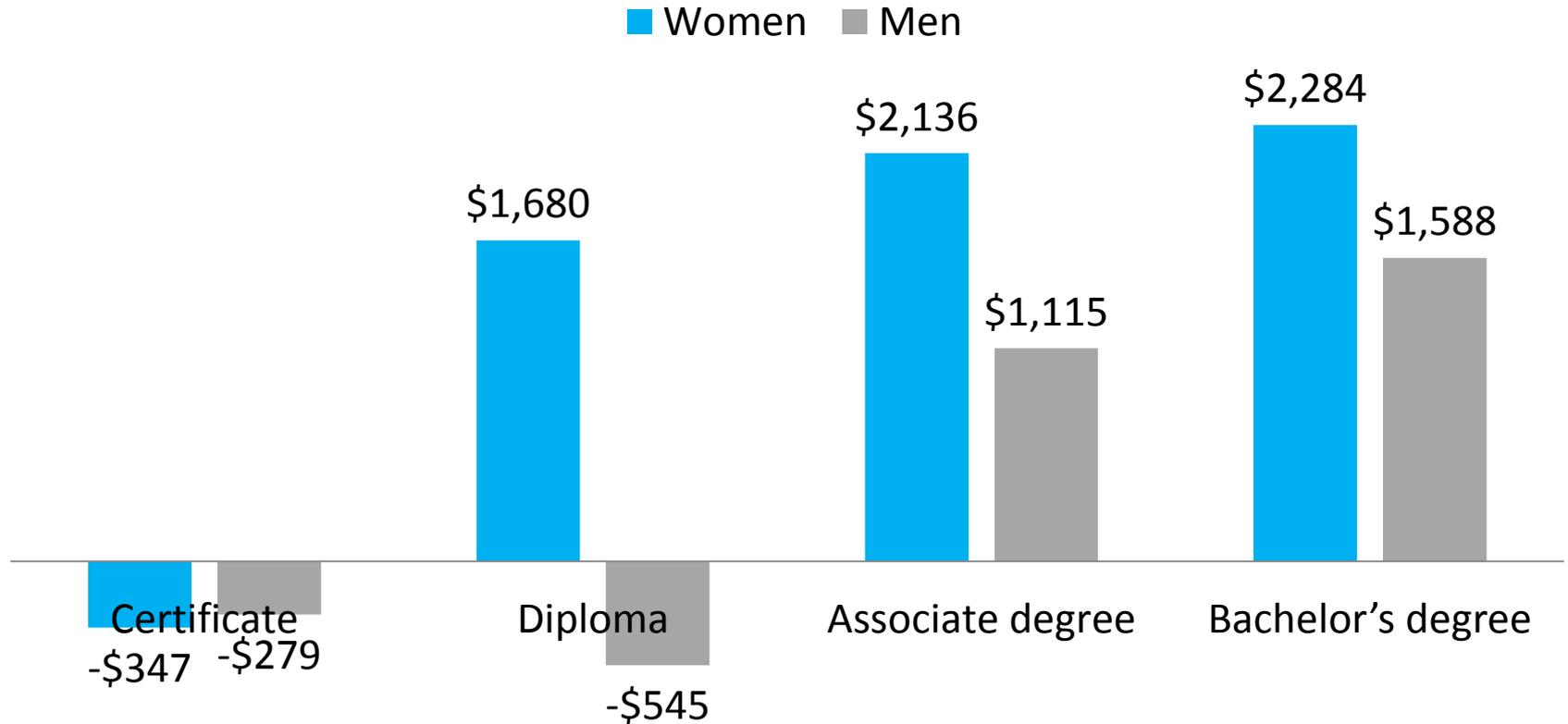
North Carolina Data

- 830,000 curriculum students in 58 NCCCS colleges
- Entering cohorts 2001-2010
- Student demographics
- Transcript information
- Financial aid record
- Quarterly earnings data from 1996 to 2012 first quarter (UI)
- Transfer information (National Student Clearing House)

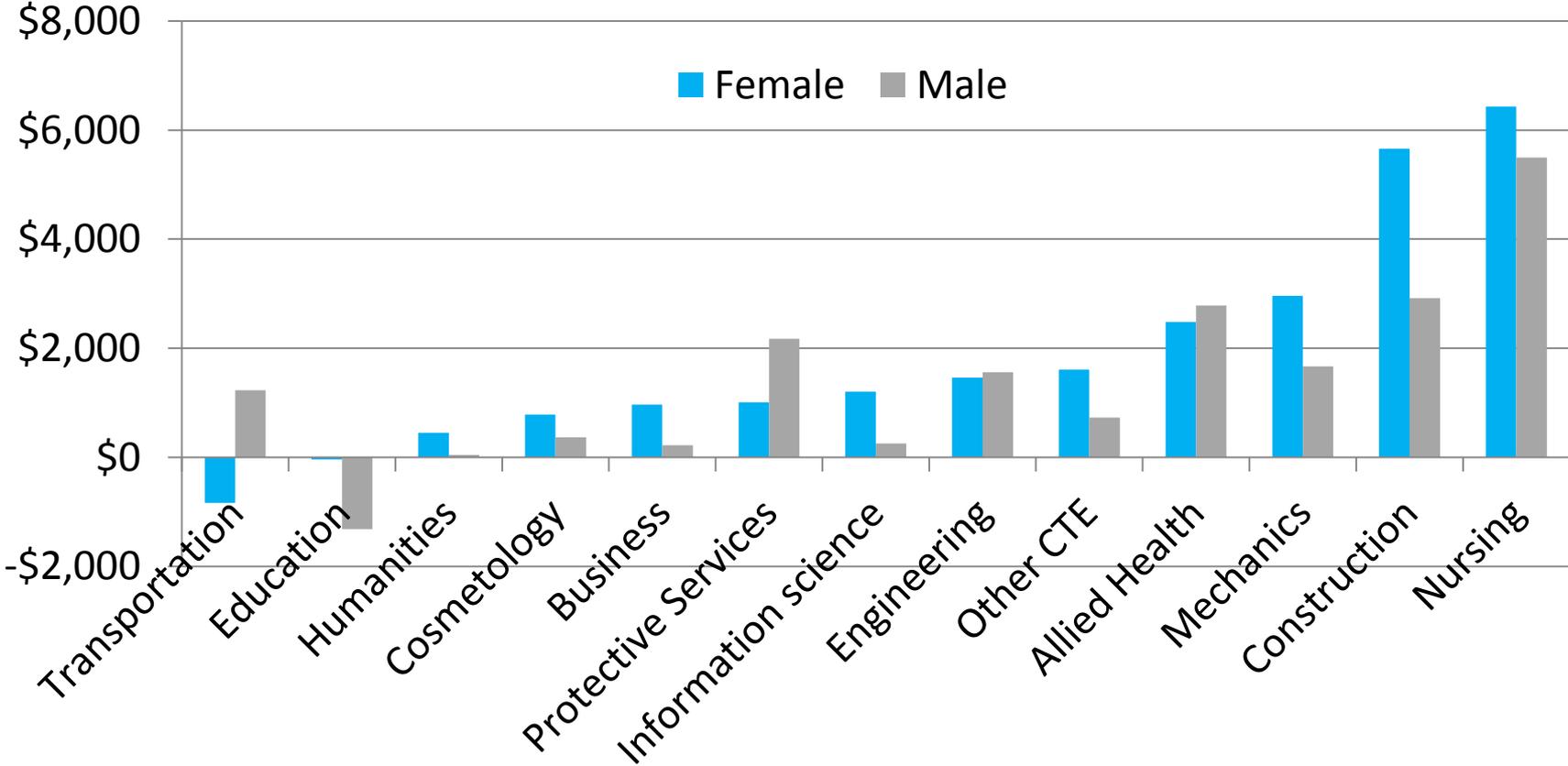
Methods

- Ordinary Least Squares:
outcomes 9 years after FTIC: average quarterly earnings in 2011 (2011 earnings gains)
- Fixed effects method
(outcome: quarterly earnings)

OLS: 2011 Earnings Gains Over No Award



2011 Earnings Gains for AA Degree-holder over Student with just Credits



Huge Returns to Nursing

	2011 Earnings Gains Over Just Credits
Nursing AA: female	\$6,400
Nursing AA: male	\$5,500
Nursing diploma: female	\$3,700
Allied health diploma: female	\$1,400

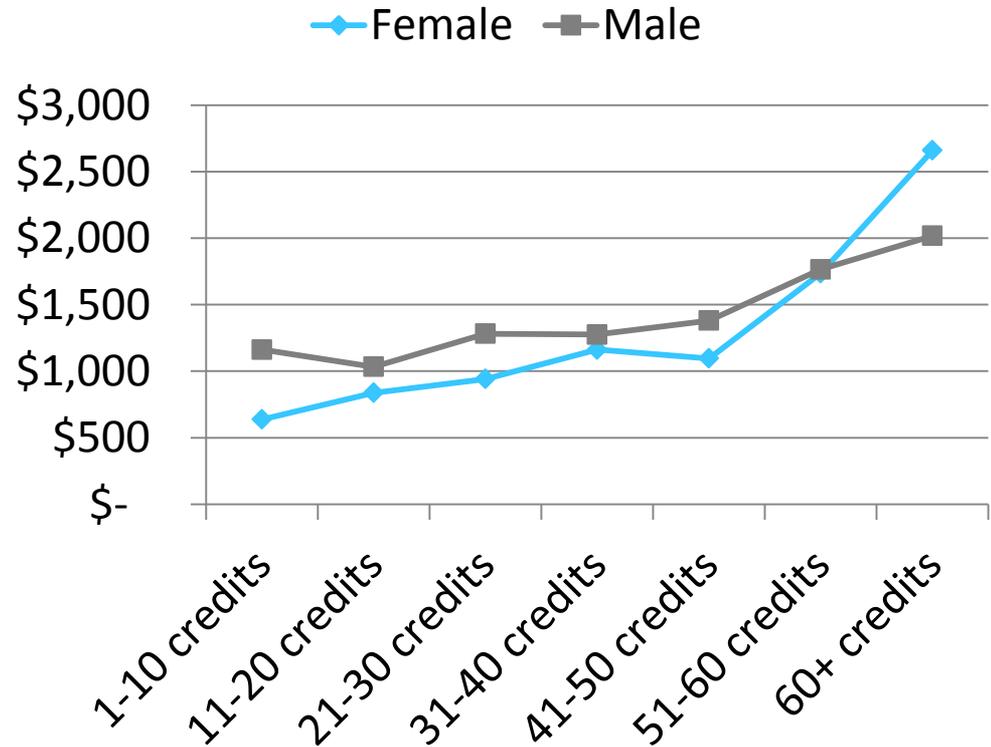
College Level Credits Earned

NCCCS credits within 9 years of enrollment (FTIC in 2002):

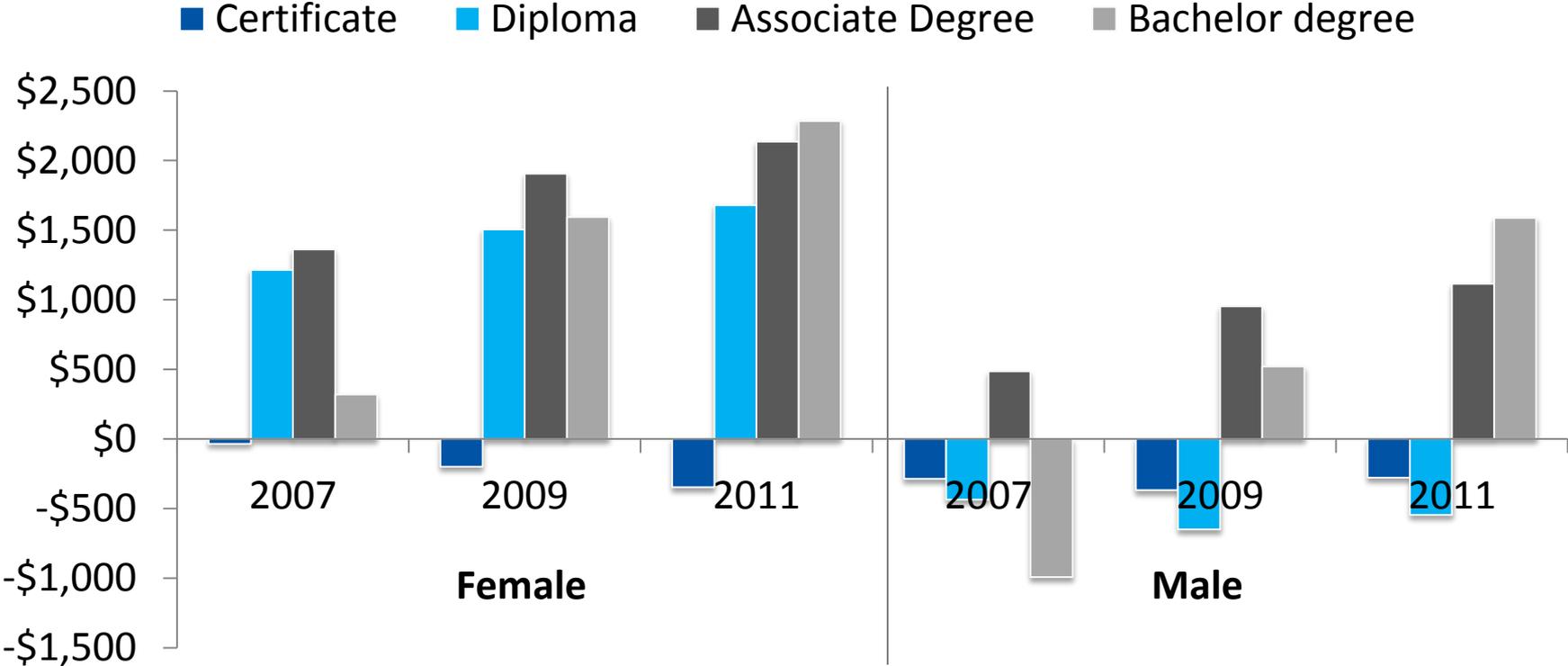
	Male	Female
Just credits	17	18
Certificate	28	34
Diploma	57	62
AA degree	70	75
BA degree	31	29

2011 Earnings Gain for Credits Relative to “Zero Credits” Student

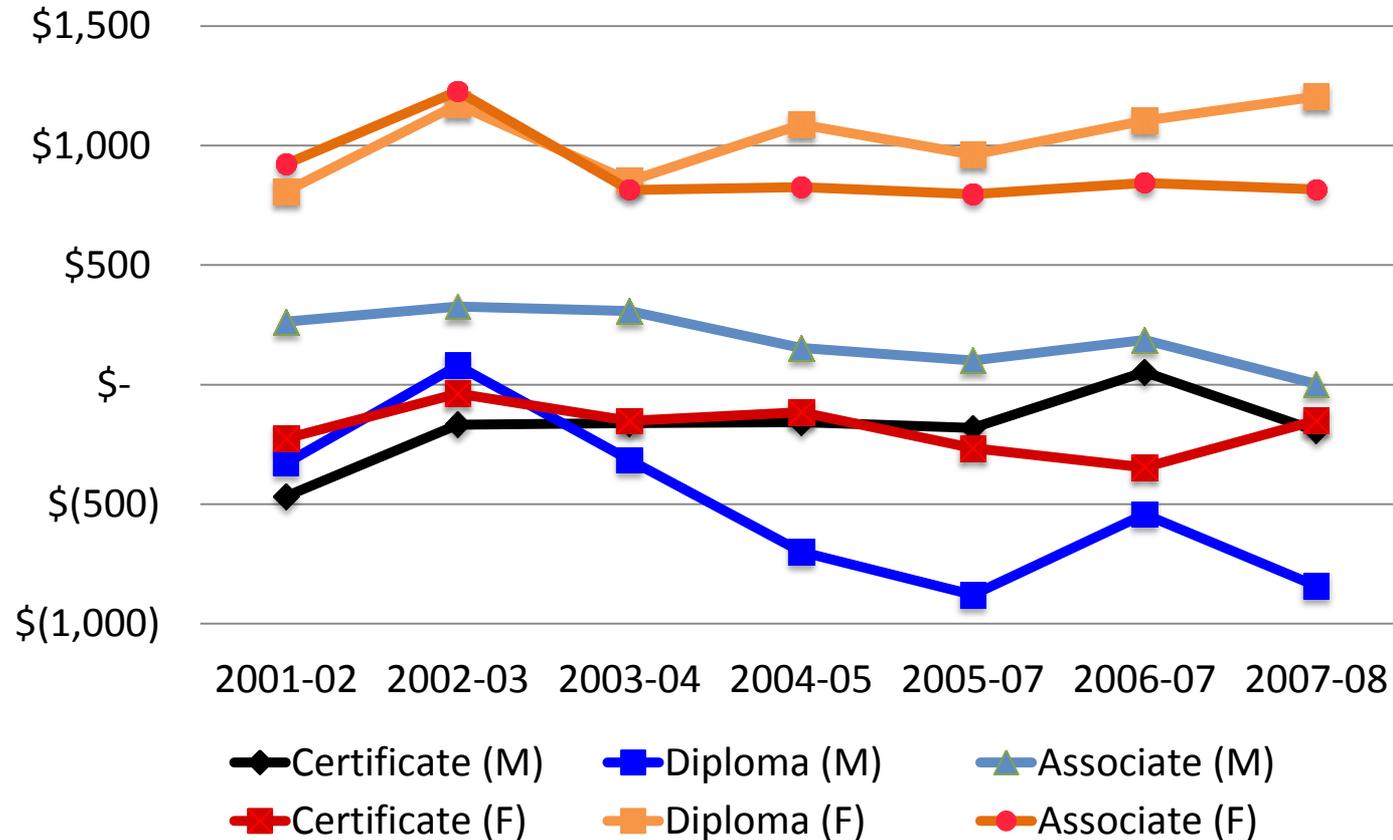
Per Credit	Female	Male
NCCCS	\$22	\$12
Post-NCCCS	\$10	\$7



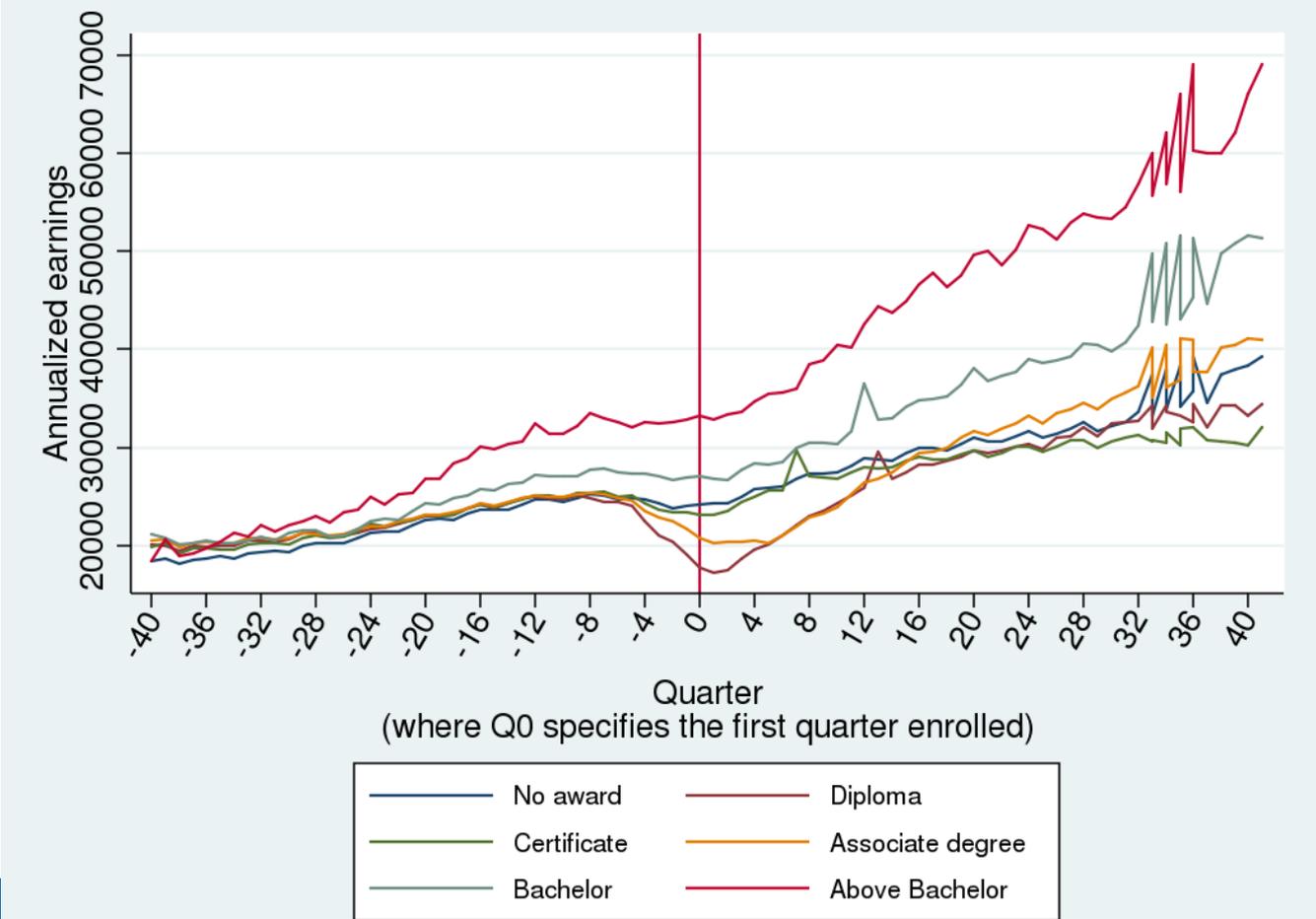
Earnings Gains for Awards Over Time



Average Quarterly Earnings Gains 5 years after Enrollment by Cohort



Quarterly Earnings (Students aged 25+)



Quarterly Earnings Gain: Fixed Effects

	Female	Male
Certificate	\$157*** [36]	\$476*** [54]
Diploma	\$1,565*** [50]	\$564*** [85]
Associate Degree	\$1,907*** [30]	\$1,133*** [43]
Bachelor's degree or higher	\$3,292*** [36]	\$3,002*** [53]
NCCCS college	-\$306.5*** [6]	-\$358.1*** [10]
Post-NCCCS college	-\$306.3*** [5]	-\$580.5*** [9]

Takeaways

- Returns to certificates and diplomas are weak, but associate and bachelor's degrees yield very strong returns
- Returns to health sector credentials are extremely high
- Returns are much higher for females than males
- Even small accumulations of credits have labor market value
- Little evidence that the returns fall over the latter half of the 2000s and the Great Recession
- Medium-term estimates likely understate the full value of college credentials, particularly bachelor's degrees

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