Chinese Head Tax Project: Updates

Amy Kim

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Research Question

How does an increase in fixed migration costs (in the form of a nationality-specific flat 'head tax' at the time of entry) affect selection into immigration?

Data Issues

Ferenczi and Willcox (1929)

- Immigration by country and year only starts in 1900 (no pre-period data for Head Tax)
- Census data is mostly similar in shape, but differs significantly at times All Countries Belgium Japan

Time Series Emigration Regressions à la Hatton and Williamson (1994)

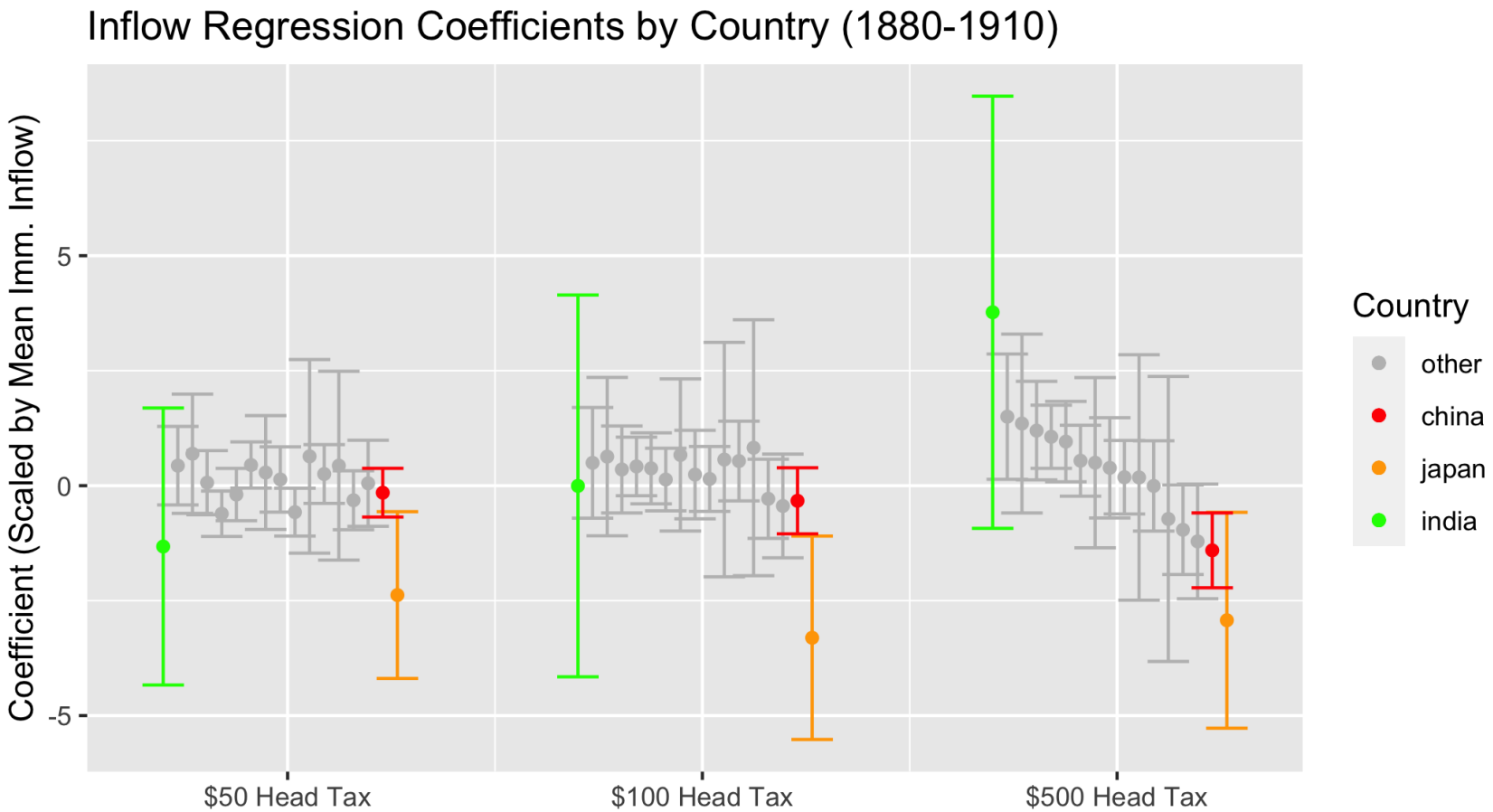
- Essentially missing any origin country data for China (wages, population, industrialization)
- Don't have annual Chinese population in Canada – okay to impute between decennial censuses?

Immigration Inflow: Regression Specification

$$\text{FLOW}_t = \alpha + \beta_1 \text{TOTALIMM}_t + \beta_2 \text{GNPGROWTH}_t + \delta_1 t + \delta_2 t^2 + \sum_{\tau \in \mathcal{T}} \gamma_\tau^{FLOW} \mathbf{1}[TAX_t = \tau] \quad (1)$$

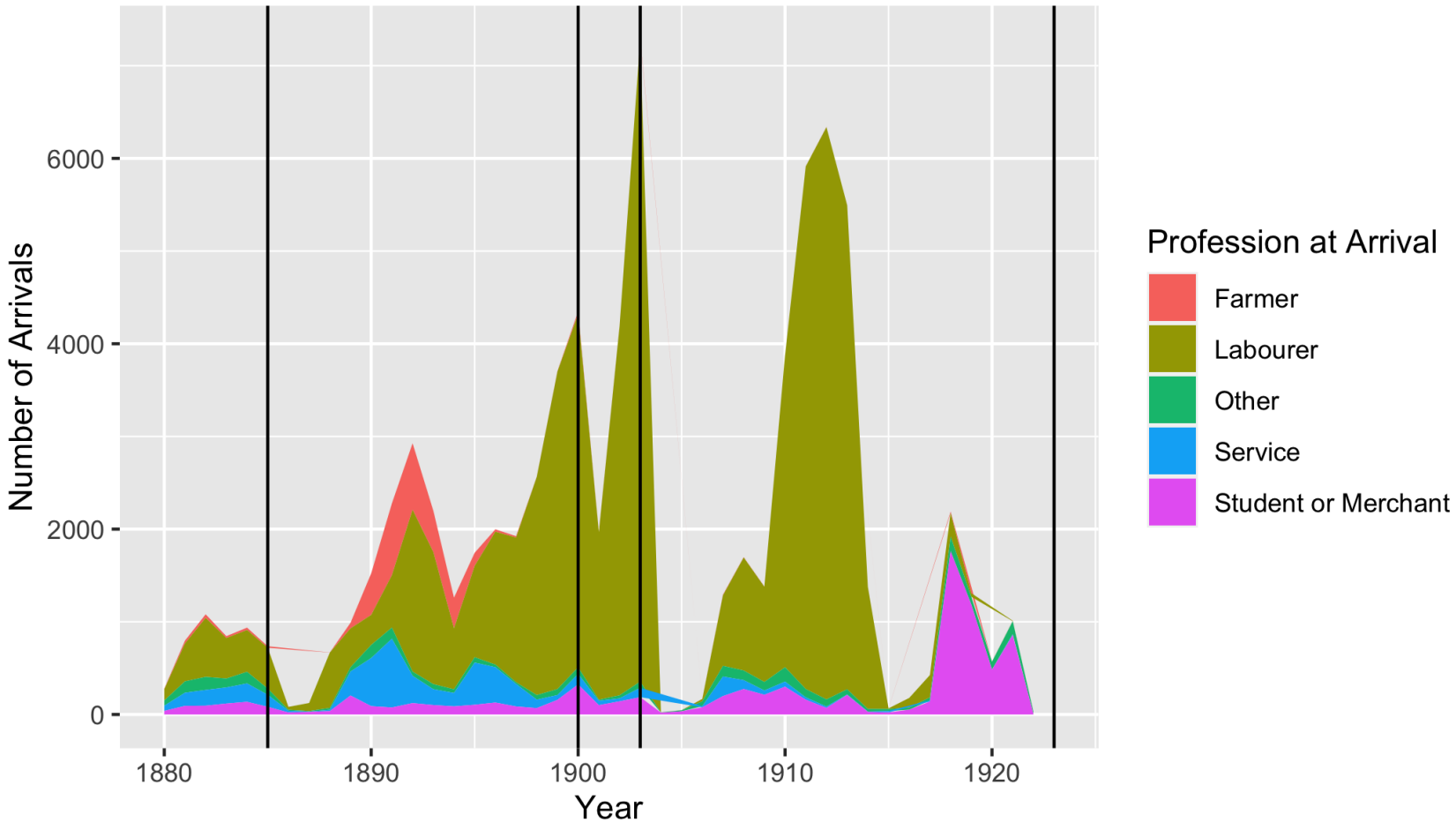
- Same as regression from last time – ctrls for total immigration, GNP growth, time and time squared; run separately for each country

Graphing γ_τ^{FLOW}'s for Various Countries [Eq (1)]



Countries (L to R): India, Belgium, Australia/NZ, France, Poland, Russia, Italy, Denmark, Norway, Germany, Switzerland, Sweden, West Indies, Austria/Hungary, Finland, China, Japan

Immigrant Composition: Profession at Arrival



As Percentages

Using Chinese Register Data

- No comparison group – hard to distinguish between time trends and effects of Head Tax
- Regression specification: controlling for age and time trend only
- Exclude non tax payers (mechanically positively selected) and pre-1885 arrivals (also potential selection into registration)
- Results seem to support positive selection in higher head-tax years

Immigrant Composition Regressions: Register Data

	LABOR	HEIGHT
	(1)	(2)
\$100 Tax	-0.094^{***} (0.006)	0.052 (0.033)
\$500 Tax	-0.482^{***} (0.009)	0.147^{***} (0.055)
Dep. Var. Mean	0.748 (0.002)	64.21 (0.009)
Observations	48,084	47,266
Adjusted R^2	0.210	0.012

% Laborer Over Time
Avg. Height Over Time

Immigrant Composition: Regression Specification

$$y_{itc} = \beta_a AGE_{ic} + \delta_c + \delta_t + \alpha CHI_i + \sum_{\tau \in \{100,500\}} \gamma_\tau CHI_i \times \mathbf{1}[TAX_t = \tau] + \varepsilon_{it} \quad (2)$$

- δ_c absorbs census year FE, δ_t absorbs arrival year FE
- controls for current age AGE_{ic}
- comparison group: all other immigrants

Outcome Regressions: Canada (1880-1910)

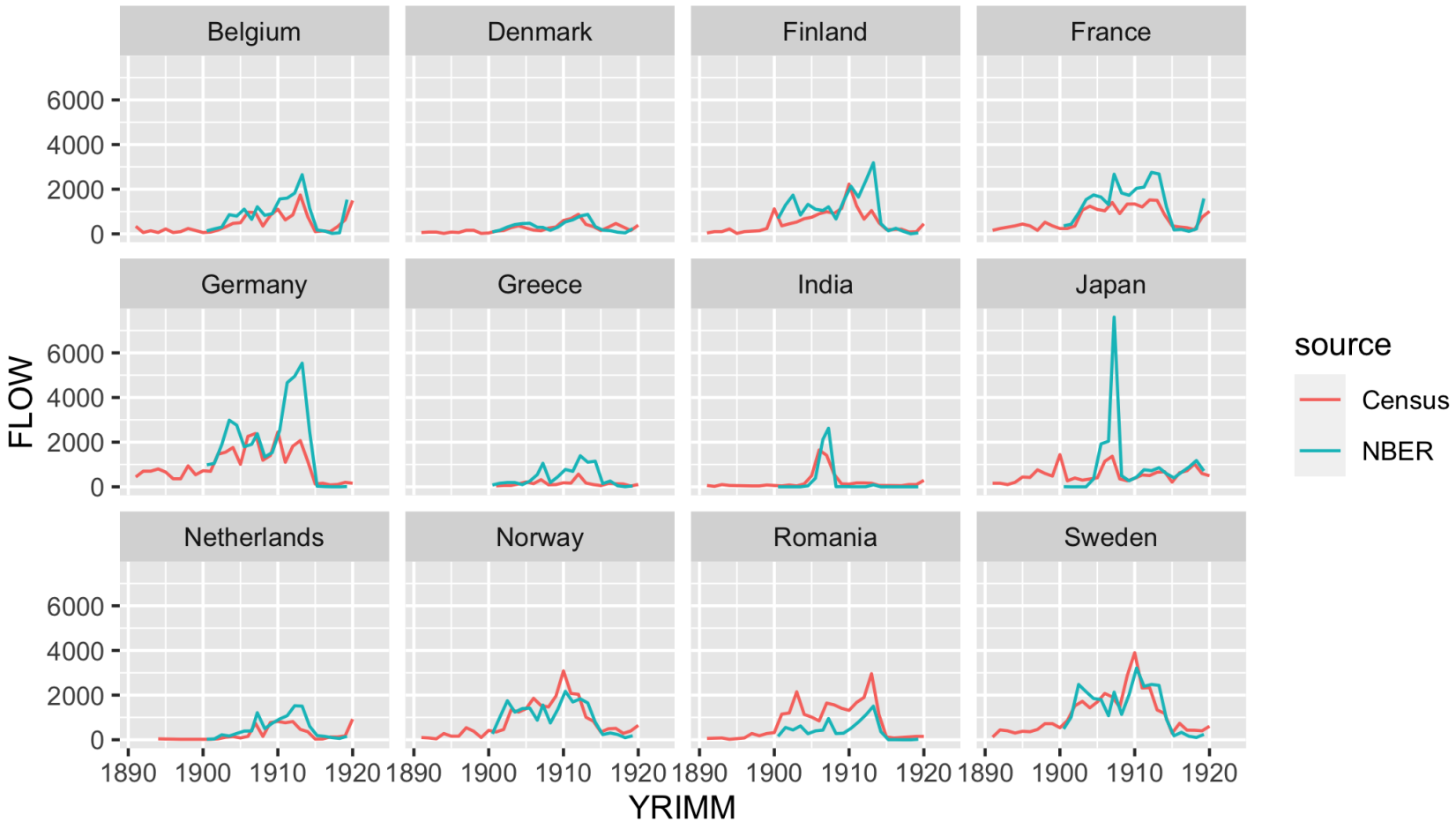
	LABOR	CANREAD	EARN	HOUSEOWN
	(1)	(2)	(3)	(4)
BORNCHI	0.215*** (0.026)	−0.324*** (0.020)	−530.000*** (107.100)	−0.463*** (0.032)
BORNCHI × \$50 Tax	−0.049* (0.029)	0.107*** (0.021)	169.500 (117.300)	0.109*** (0.035)
BORNCHI × \$100 Tax	0.017 (0.032)	0.113*** (0.023)	81.170 (133.200)	0.071* (0.039)
BORNCHI × \$500 Tax	−0.116*** (0.029)	0.074*** (0.021)	126.100 (119.500)	0.126*** (0.035)
Dep. Var. Mean (SE)	0.207 (0.002)	0.923 (0.001)	800.5 (6.515)	0.473 (0.002)
Observations	63,181	62,059	38,073	63,181
Adjusted R^2	0.048	0.053	0.047	0.140

Outcome Regressions: US (1880-1910)

	LABOR	CANREAD	ERSCORE	HOUSEOWN
	(1)	(2)	(3)	(4)
BORNCHI	0.022*** (0.002)	−0.157*** (0.001)	−14.680*** (0.117)	−0.377*** (0.002)
BORNCHI × \$50 Tax	−0.075*** (0.003)	0.056*** (0.002)	−2.437*** (0.171)	0.105*** (0.003)
BORNCHI × \$100 Tax	−0.167*** (0.007)	0.115*** (0.006)	−0.341 (0.470)	0.158*** (0.008)
BORNCHI × \$500 Tax	−0.246*** (0.004)	0.182*** (0.003)	1.612*** (0.270)	0.236*** (0.005)
Dep. Var. Mean (SE)	0.219 (0.000)	0.884 (0.000)	48.3 (0.007)	0.332 (0.000)
Observations	14,169,366	14,169,366	13,020,671	14,169,366
Adjusted R^2	0.042	0.039	0.013	0.086

US/Canada Imm. Inflows

NBER vs. Census Immigration Data



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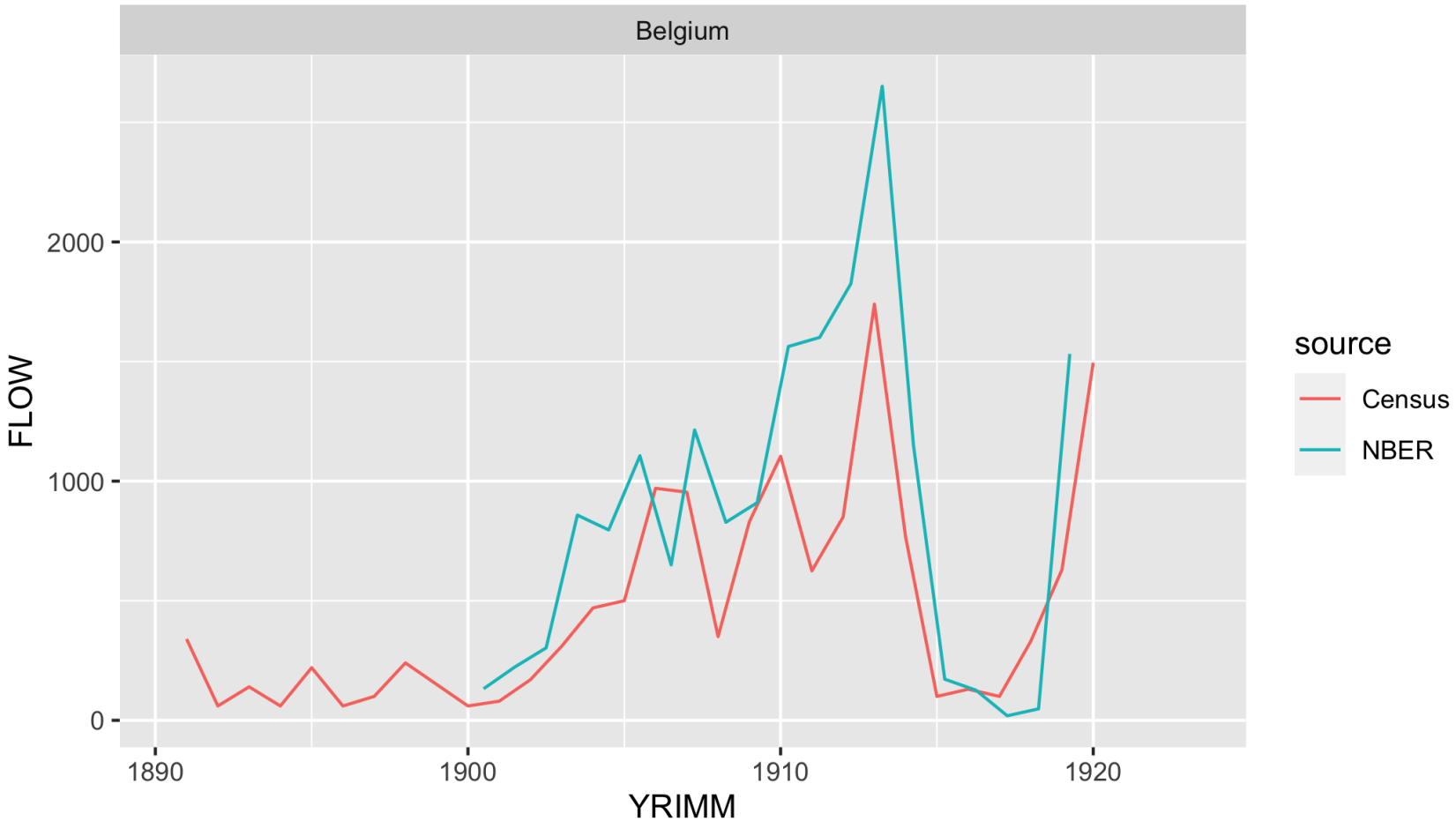
NBER vs. Census Immigration Data: Belgium



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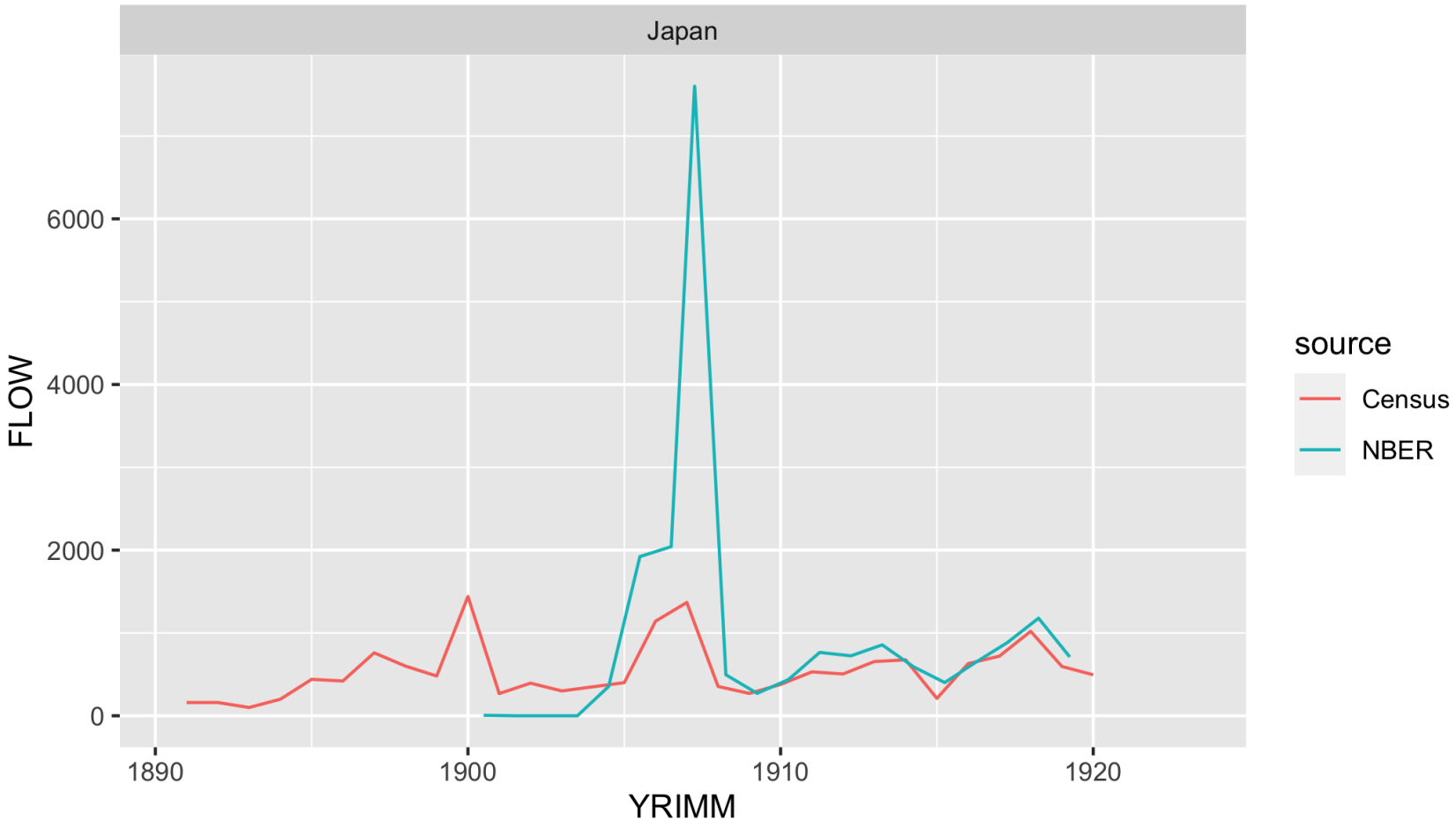
NBER vs. Census Immigration Data: Japan



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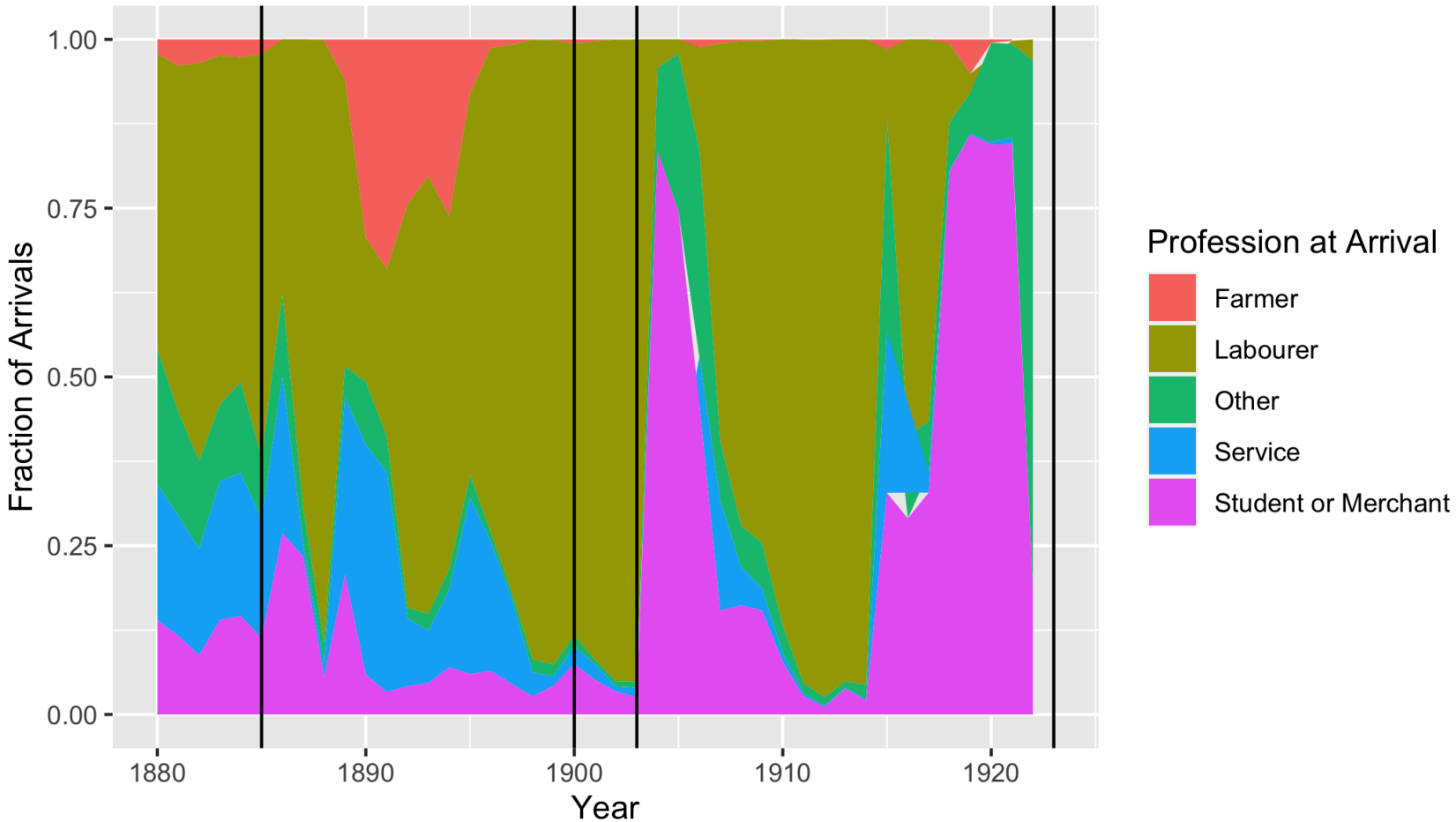
Chinese Immigrant Composition: Profession at Arrival (%)



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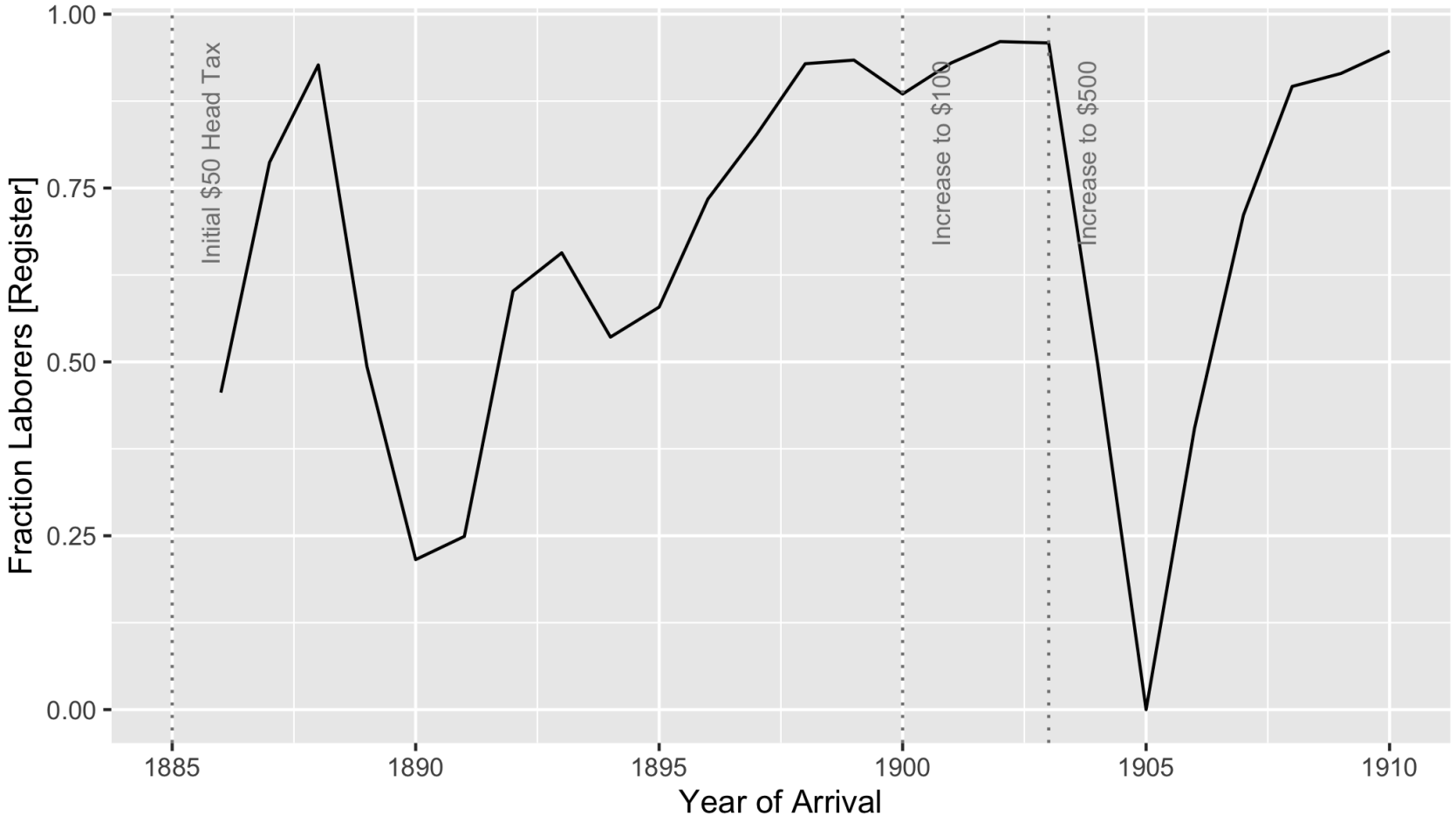
Chinese Immigrant Composition: Laborer (%)



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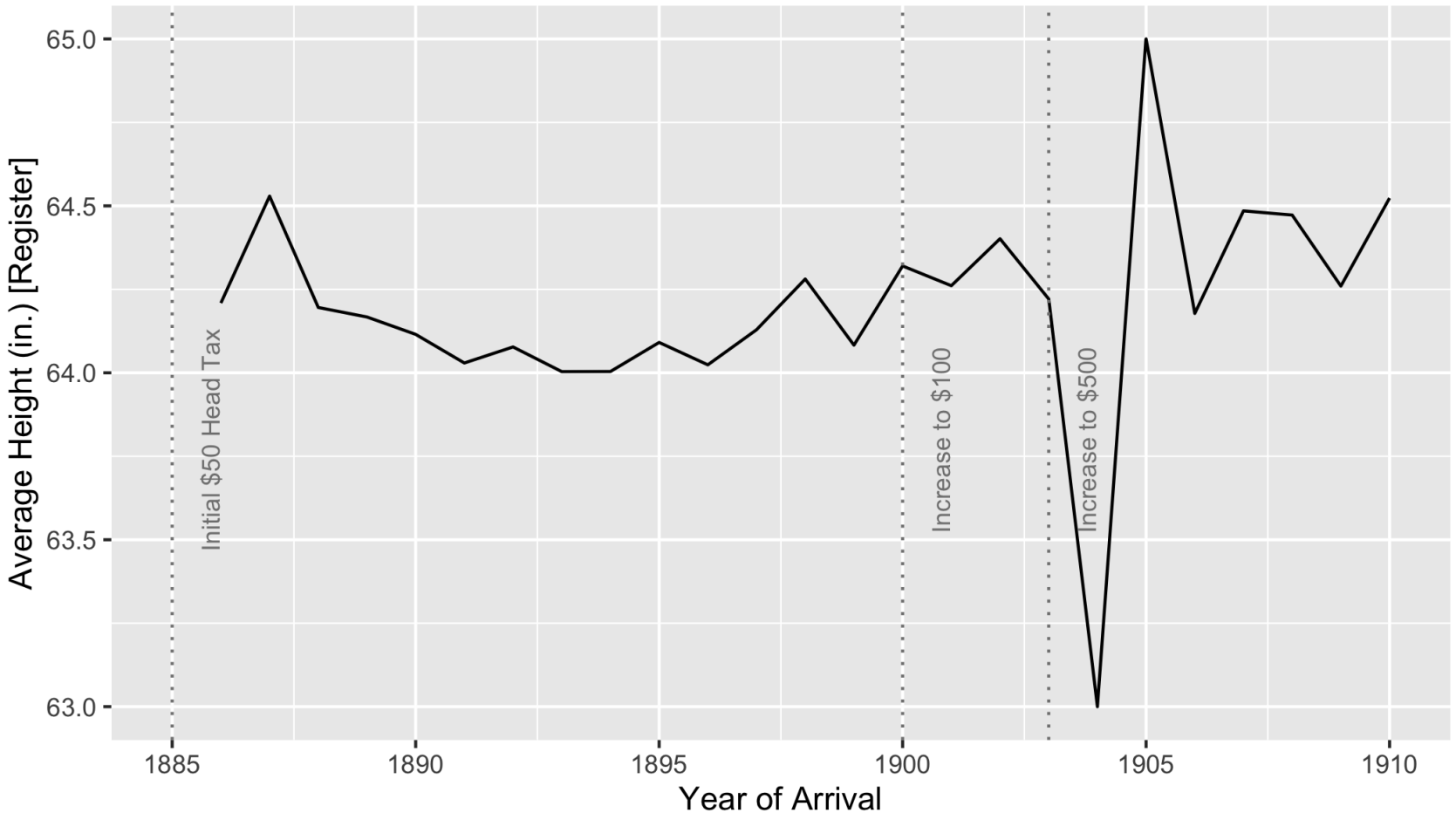
Chinese Immigrant Composition: Avg. Height



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Immigration Inflow: US vs. Canada