

**Coercive Assimilation Policy and Ethnic
Identification Across Generations
Evidence from American Indian Boarding Schools**

Christian Maruthiah
Trinity College Dublin

August 27, 2024

States have often sought to reshape the culture and identities of their subjects



Source: *Chronicling America: Historic American Newspapers.*

The most coercive assimilation effort in U.S. history?

“A great general has said that the only good Indian is a dead one... I agree with the sentiment, but only in this: that all the Indian there is in the race should be dead. Kill the Indian in him, and save the man.”

- R. H. Pratt, Annual Conference of Charities and Correction, 1892

The policy: removing Native American children from communities (reservations) to distant ‘off-reservation’ boarding schools.

The off-reservation school system

- Nation-wide in scope.
- Children removed for long periods.
- Western customs promoted over tribal ones.



Source: Carlisle Indian School Digital Resource Center.

Q: Did off-reservation schools lead to the cultural assimilation of Native Americans?

Data

- Match Native Americans in historical census to reservations.
- Track off-reservation school recruitment patterns.
- Link individuals across historical census years.

Empirics

- Identification: staggered recruitment patterns and variation in cohort exposure based on schooling ages.

Takeaway

- Substantial assimilation in first generation.
- Reversal of effects in second generation.
→ community- and individual-level resistance.

Related literature

- Indigenous boarding schools: Gregg (2018); Feir (2016); Jones (2022).

Contributions:

- First analysis of schools in their historical context.
 - New measures of assimilation and cultural change.
 - First causal estimates of intergenerational effects.
- Immigration and assimilation in the U.S.: Abramitzky et al. (2020); Fouka et al. (2021); Fouka (2019).

Contributions:

- New measure capturing hard-to-observe aspects of assimilation.
- (Changes in) Racial identification in the U.S.: Dahis et al. (2020).

Contributions:

- Causal evidence on role of policy on racial classification.

Education prior to the off-reservation system

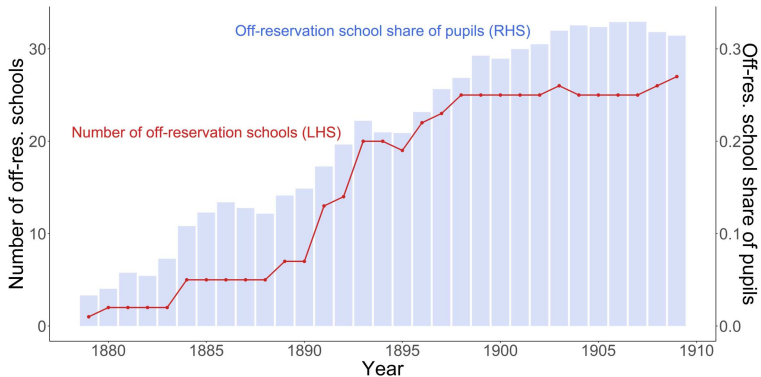
- Prior to 1879, two forms of schools in operation:
 - Day schools.
 - Reservation boarding schools.
- Both types of schools on or near reservations.
- Found to be ineffective in their goals of (western) education and cultural assimilation.



Source: Library of Congress.

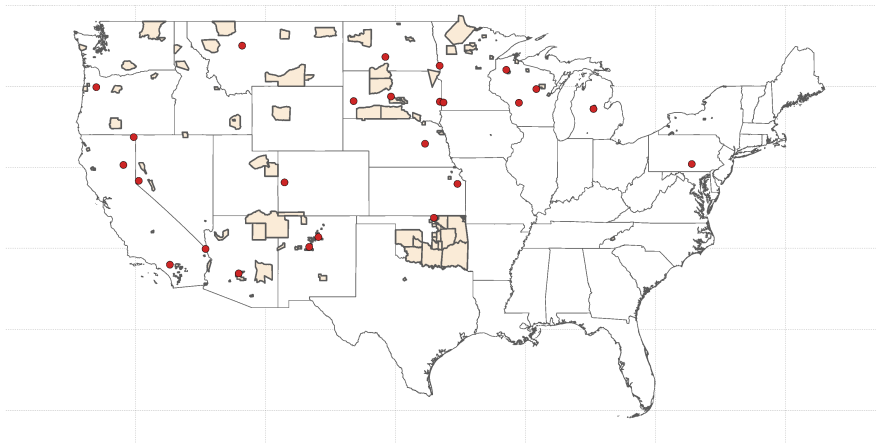
Rise of off-reservation schools

- First school opened in 1879 in Carlisle, PA.
- 27 schools in operation at peak of the programme.



Source: Own calculations using data from Annual Reports of the Commissioner of Indian Affairs

Distribution of off-reservation schools, 1910



Note: Red points represent off-reservation schools, and polygons represent reservation boundaries as at 1889.

Education at off-reservation versus reservation (boarding) schools

- Both types of schools offered 'industrial education'.
 - Instruction in trades (carpentry) and farming.
- Academic content generally of similar level.
 - Standardised 'course of study' from 1890.
 - Off-reservation schools only offered more advanced grades from 1910s onwards.
- Proxies of quality (Office of Indian Affairs, 1900).
 - Cost per pupils: \$148 (off-res) versus \$151 (res).
 - Pupils per employees: 10 (off-res) versus 6 (res).

Not a more advanced education, nor with better peers

From the Indian Office's Annual Report, 1890:

“These institutions [off-reservation schools] are not universities, nor colleges, nor academies nor high schools.”

“In the best of them the work done is not above that of an ordinary grammar school, while in most it is of the primary or intermediate grade.”

“The pupils come to them for the most part ignorant of the English language, unaccustomed to study...”

Differences between off-reservation and reservation schools

1. Located outside Native American communities.
 - Family visits rare, if at all.
2. Students remained in schools for 3 - 5 years.
 - Typically did not return home for summers, as in reservation boarding schools.
3. Schools were (deliberately) intertribal.
 - Students forced to use English.

These features likely made off-reservation schools more effective in their cultural assimilation goals.

Racial classification in historical censuses

- I use changes in racial classification between 1910 and later years as a measure of assimilation.
- Over this period, race inferred by census enumerators.
 - Reported race reflects community perceptions, not own identification.
- Coverage of Native Americans varied across years.
 - 1910: reliable coverage.
 - 1920 to 1940: many Native Americans counted as 'White'.

Data sources

Archival sources

- Annual Reports of the Indian Office, 1879 - 1900.
(Off-reservation school reports, tribe-to-reservation correspondences)

Attendance data

- Complete records for five off-reservation schools.

Historical censuses

- 1910 to 1940 full count censuses (IPUMS).
(Individual-level outcomes and demographic information)
- Cross-section of local 'Indian censuses' circa 1910. (Individual-level information on tribes)

Census Tree record links

- Newly-published database of links between historical censuses.

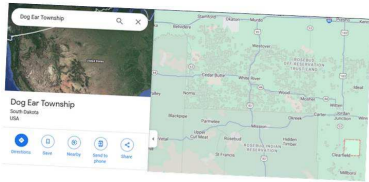
Matching Native Americans to reservations

1. Start with location reported in 1910 census

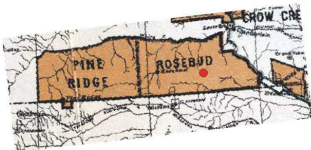
STATE *South Dakota* COUNTY *Sioux* TOWNSHIP OR OTHER DIVISION OF COUNTY *Dog Ear* NAME OF INCORPORATED PLACE _____ ESTABLISHED BY AC OR TAC *75*

DEPARTMENT OF COMMERCE AND LABOR—BUREAU OF THE CENSUS
THIRTEENTH CENSUS OF THE UNITED STATES: 1910—INDIAN POPULATION

SEX	COLOR	NAME	RELATION	FEDERAL RESERVATION		NATIVE		RESERVATION	COUNTY	STATE
				NAME	NUMBER	NAME	NUMBER			
M	W	<i>Delbert Anderson</i>	<i>Head</i>	<i>Sioux</i>	<i>100</i>	<i>Sioux</i>	<i>100</i>	<i>Sioux</i>	<i>Sioux</i>	<i>South Dakota</i>
F	W	<i>John</i>	<i>Wife</i>	<i>Sioux</i>	<i>100</i>	<i>Sioux</i>	<i>100</i>	<i>Sioux</i>	<i>Sioux</i>	<i>South Dakota</i>
M	W	<i>John</i>	<i>Son</i>	<i>Sioux</i>	<i>100</i>	<i>Sioux</i>	<i>100</i>	<i>Sioux</i>	<i>Sioux</i>	<i>South Dakota</i>
F	W	<i>John</i>	<i>Daughter</i>	<i>Sioux</i>	<i>100</i>	<i>Sioux</i>	<i>100</i>	<i>Sioux</i>	<i>Sioux</i>	<i>South Dakota</i>
M	W	<i>John</i>	<i>Son</i>	<i>Sioux</i>	<i>100</i>	<i>Sioux</i>	<i>100</i>	<i>Sioux</i>	<i>Sioux</i>	<i>South Dakota</i>
F	W	<i>John</i>	<i>Daughter</i>	<i>Sioux</i>	<i>100</i>	<i>Sioux</i>	<i>100</i>	<i>Sioux</i>	<i>Sioux</i>	<i>South Dakota</i>
M	W	<i>John</i>	<i>Son</i>	<i>Sioux</i>	<i>100</i>	<i>Sioux</i>	<i>100</i>	<i>Sioux</i>	<i>Sioux</i>	<i>South Dakota</i>
F	W	<i>John</i>	<i>Daughter</i>	<i>Sioux</i>	<i>100</i>	<i>Sioux</i>	<i>100</i>	<i>Sioux</i>	<i>Sioux</i>	<i>South Dakota</i>
M	W	<i>John</i>	<i>Son</i>	<i>Sioux</i>	<i>100</i>	<i>Sioux</i>	<i>100</i>	<i>Sioux</i>	<i>Sioux</i>	<i>South Dakota</i>
F	W	<i>John</i>	<i>Daughter</i>	<i>Sioux</i>	<i>100</i>	<i>Sioux</i>	<i>100</i>	<i>Sioux</i>	<i>Sioux</i>	<i>South Dakota</i>



2. Geocode using Google Maps



3. Overlay on historical reservations

- I match around 75 per cent of Native Americans to a unique reservation.

Determining reservation treatment years

1. Identify tribes / reservations in school reports or attendance records

INDUSTRIAL SCHOOL FOR INDIAN YOUTH,
Genoa, Platte County, Nebraska, August 20, 1884.

SIR: I have the honor to report the opening of this school on the 20th of February, 1884, with 71 pupils from the Rosebud Agency, Dakota. On the 24th of the same month 18 arrived from the Yankton agency, Dakota. March 1, 27; March 20, 13; April 17, 5, and July 17, 2, all from the Rosebud Agency, joined the school; making an aggregate of 136. One not accepted, and sent back; 2 have since died; 1 removed to another school; 3 have run away, and not yet brought back, leaving 100. On 1- and 40 girls attending school.

A STATEMENT OF FACTS WITH REFERENCE TO WORK ACCOMPLISHED

School filled to one more than the maximum allowed, viz, 76; of the boys and 28 are girls, divided as follows: Puyallups, 20; Warm Springs, 13; Putes, 1; Pitt Rivers, 2; Spokanes, 19; Chehalis, 4; Nesquallys, 1; Oyster Bays, 2.

Handwritten school record form with the following entries:

- Name: Hope Blue Teeth
- Tribe: Spokane
- Agency: Rosebud, S.D.
- Father: Blue Teeth
- Class entered: 11-14-'83
- Dismissed: 7-8-'89
- Reason: time out
- Teacher: Frank Roche
- Remarks: Ch. Rosepine, 5 Naks.
- Date: 3-12-'83

Schedules showing names of Indian reservations in the United States, agencies, tribe occupying or belonging to the reservation, &c.—Continued.

Name of reservation.	Agency.	Name of tribe occupying reservation.	Area in acres.	Agency (in 18)	Date of treaty, law, or other authority establishing reserve.
UTAH TERRITORY.					
Utah Valley	Utah	Great Ute, Paiute, Ute, Yampai, and Grand River Ute	2,411,018,940	3,194	Executive order, October 2, 1861, act of Congress approved May 6, 1861, vol. 11, p. 43.
Uncompahgre	Utah	Taiyabachee Ute	1,903,440	3,402	Executive order, January 2, 1862.
Total			4,314,459	6,597	
WASHINGTON TERRITORY.					
Clelala	Nesqually and Skokanah	Klappan, Tahalic, and Toluck	44,223	6	Order of the Secretary of the Interior, July 9, 1864.
Columbia		Chief Moses and his people	2,261,040	2,005	Executive order, April 19, 1870; March 6, 1880, and February 22, 1883. (See Indian appropriation act of July 4, 1864, 37 Stat., p. 73.)
Coville	Coville	Crow & Aton, Colville, Kallispaw, Kikwapa, Lemhi, Methan, Nesqually, Flat Clitwala, Sun, and Spokane	2,806,690	4,373	Executive orders, April 8, and July 2, 1872.
Lanai (Chah chaw-aw)	Yakima	Duwamish, Klakwam, Lummi, Stoewaham, Sitkum, and Twana	413,313	131	Treaty of Point Elliott, January 22, 1855, vol. 11, p. 907; Executive order, December 21, 1857.
Makah	Nash Bay and Quinalt	Kwiltlat and Makah	33,048	5	Treaty of Nash Bay, January 21, 1855, vol. 11, p. 909; Executive order, October 26, 1852, January 24, and October 21, 1853.
Muckleshoot	Yakima	Muckleshoot	45,307	5	Executive order, January 20, 1857, and April 1, 1871.
Nesqually	Nesqually and Skokanah	Muckleshoot, Nisqually, Puyallup, Sitkum, and Twana	44,711	13	Treaty of Medicine Creek, December 26, 1854, vol. 11, p. 1112; Executive order, January 20, 1857.
Port Madison	Yakima	Duwamish, Klakwam, Lummi, Stoewaham, Sitkum, and Twana	45,284	114	Treaty of Peace Hills, January 22, 1855, vol. 11, p. 907; order of the Secretary of the Interior, October 11, 1864.
Puyallup	Nesqually and Skokanah	Muckleshoot, Nisqually, Puyallup, Sitkum, and Twana	414,800	28	Treaty of Medicine Creek, December 26, 1854, vol. 11, p. 1112; Executive order, January 20, 1857, and September 4, 1871.
Quinalt	Nash Bay and Quinalt	Hoh, Kwant, Kwiltlat, and Kwiltlat	224,800	330	Treaties of Olympia, July 1, 1850, and January 25, 1856, vol. 11, p. 871.

2. Match to reservations using schedules in Indian Office Annual Reports

- I identify treatment years of 131 reservations or settlements.

Linking across datasets

Linking across census years

- Use off-the-shelf links from the Census Tree.
 - 20 - 30 per cent of individuals linked from 1910 to later years.
 - Reweighted by probability of linkage (Bailey et al., 2020).

Linking across other datasets

- Use algorithm proposed by Abramitzky et al. (2019).
 - Identifies matches using name, year of birth, and state of birth.
 - 20 - 25 per cent of individuals linked across datasets.

Samples

First generation

- Household heads, male, aged 18 - 60 in 1910.
- Drop small reservations and those under 'Union Agency'.

1910: 10,500 individuals, 69 reservations

1920: 2,500 individuals, 34 reservations

Second generation

- Male children from first gen. households linked to 1940 census.
- Household heads, aged 30 - 60 in 1940.
- Born *after* (father's) reservation was treated.

1940: 1,500 individuals, 20 reservations

Measuring exposure to off-reservation schools

- With newly-constructed datasets, I can observe:
 - An individual's year of birth.
 - Their reservation.
 - Year reservation was first 'treated' by an off-reservation school.
- Define *age at exposure*: age when reservation first treated.
 - For individual i from reservation r and birth cohort c :

$$age_at_exposure_i = year_treated_{r(i)} - birth_year_{c(i)}$$

- Older individuals past schooling age unlikely to be recruited.
- In the chapter, I show that the age of 20 was a de facto limit.

Specification, first generation

I estimate effects at the reservation-by-cohort level:

$$y_{r,c} = \sum_{j; j \neq 22} \alpha_j \text{age_at_exposure}_{j(r,c)} + \alpha_r + \alpha_c + X'_{r,c} \gamma + \varepsilon_{r,c}$$

Where:

- $y_{r,c}$ is mean outcome for individuals from reservation r , cohort c .
- $\text{age_at_exposure}_{j(r,c)}$ are event time indicators.
- α_r and α_c are reservation and cohort FEs.
- $X_{r,c}$ are initial characteristics interacted with cohort FEs.

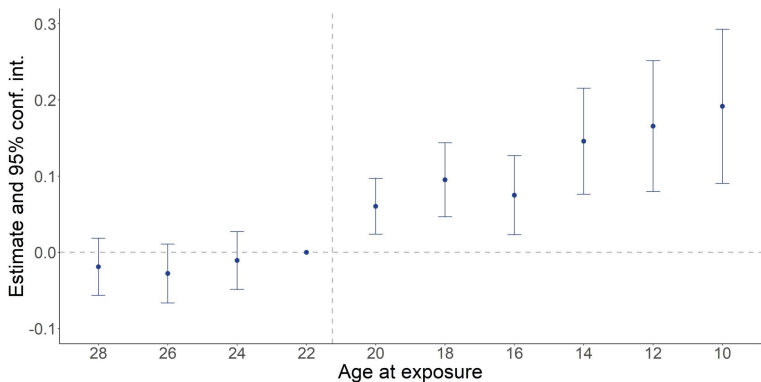
Specification, second generation (1940)

$$y_{r,c,c'} = \sum_{j; j \neq 24} \alpha_j \text{age_at_exposure}_{j(r,c)} + \alpha_r + \alpha_c + \alpha_{c'} \\ + X'_{r,c} \gamma + \varepsilon_{r,c,c'}$$

Where:

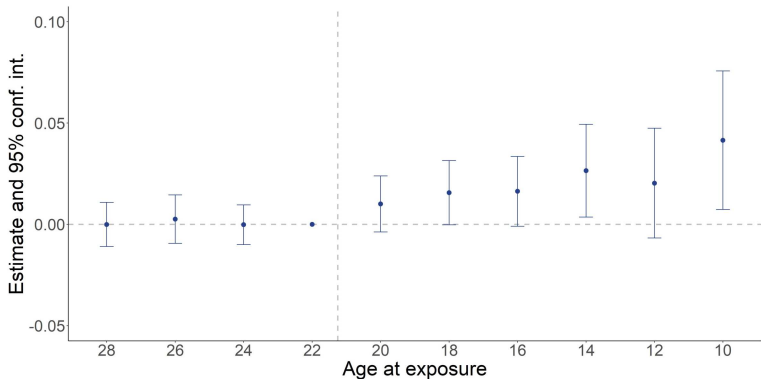
- $y_{r,c,c'}$ is mean outcome for children from cohort c' with father from reservation r and cohort c .
- $\text{age_at_exposure}_{j(r,c)}$ are father's event time indicators.
- α_c are father's cohort FEs.
- $\alpha_{c'}$ are child's cohort FEs.

First gen. – Off-reservation schools improved English proficiency



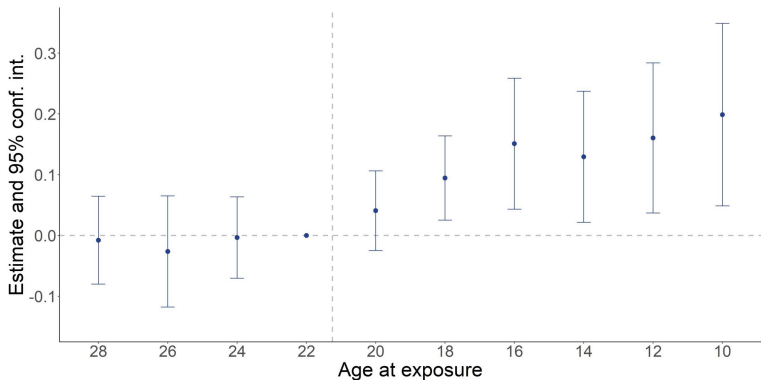
- Average effect = 0.122 (0.029)
- Dep. var. mean = 0.629

... increased rates of intermarriage with White Americans



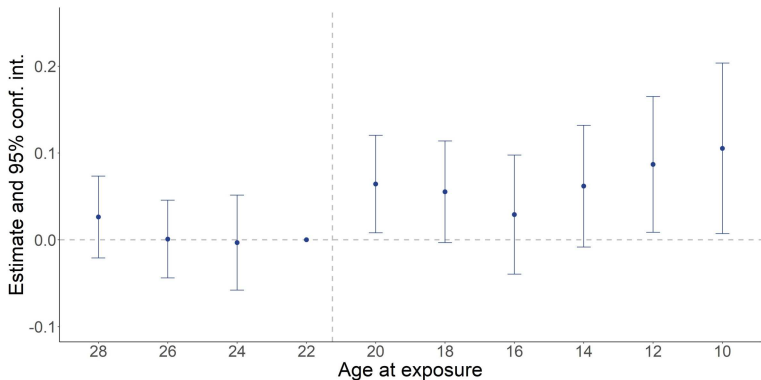
- Average effect = 0.022 (0.010)
- Dep. var. mean = 0.015

... led to 'western' name choices for children



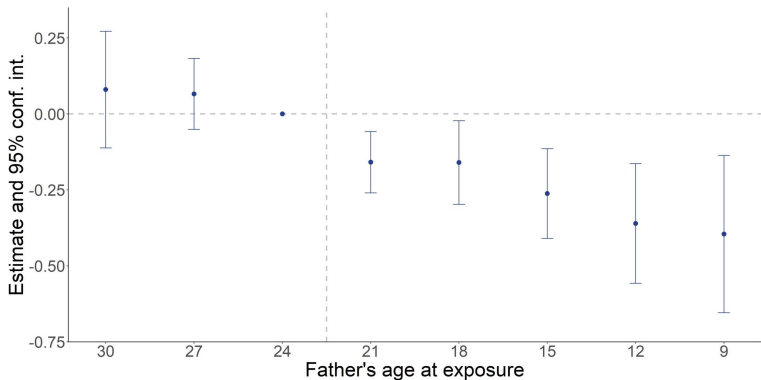
- Average effect = 0.123 (0.042)
- Dep. var. mean = 0.528

... increased prob. of being 'White' in 1920



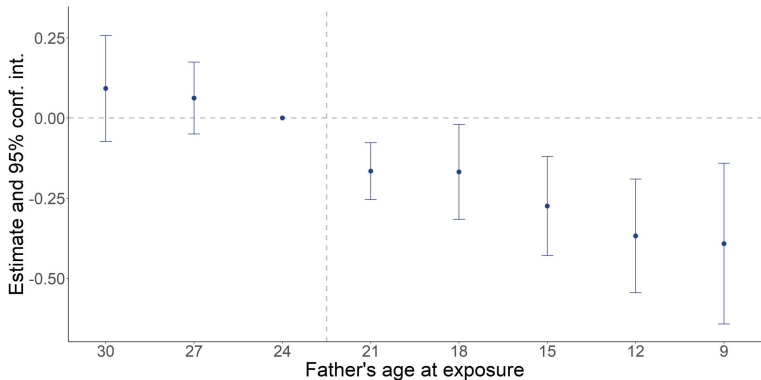
- Average effect = 0.093 (0.034) [0.006]
- Dep. var. mean = 0.144

Second gen. – Less likely to intermarry



- Average effect = -0.271 (0.094) [0.031]
- Dep. var. mean = 0.383

... and less likely to be counted as 'White' in 1940



- Average effect = -0.298 (0.101) [0.021]
- Dep. var. mean = 0.343

Community-level resistance

	Single tribe / band		Multiple tribe / bands	
	White spouse (1)	'White' in 1940 (2)	White spouse (3)	'White' in 1940 (4)
Average effect	-0.284 (0.129) [0.035]	-0.284 (0.124) [0.023]	-0.041 (0.093) [0.677]	0.020 (0.085) [0.821]
Mean dep. var	0.461	0.438	0.318	0.261
R2	0.180	0.192	0.242	0.215
No. reservations	9	9	12	12
No. cohorts	16	16	16	16
Obs.	730	824	772	836

Individual-level resistance

	SAI member	In 1930 Indian census	
	(1)	(2)	(3)
Panel (a), First gen.			
Attended = 1	0.012 (0.005)	0.233 (0.025)	
Panel (b), Second gen.			
Father attended = 1			0.108 (0.026)
Year measured	1911	1930	1930
Mean dep. var	0.001	0.174	0.211
R2	0.022	0.148	0.180
No. reservations	102	102	103
No. cohorts	11	11	11
Obs.	12,643	12,643	14,546

Conclusion

- I study the effects of a highly-coercive attempt to assimilate Native Americans into western society.
- By studying the indigenous boarding schools in their historical context, I am able to highlight the nuanced effects of such policies across generations.
- Ultimately, off-reservation schools seem to have strengthened the identities they sought to erase.

Thanks!

If any comments / suggestions come to mind, please get in touch at:
christian.maruthiah@gmail.com

References I

- Ran Abramitzky, Leah Boustan, and Katherine Eriksson. To the New World and Back Again: Return Migrants in the Age of Mass Migration. *ILR Review*, 72(2): 300–322, 2019.
- Ran Abramitzky, Leah Platt Boustan, and Katherine Eriksson. Do Immigrants Assimilate More Slowly Today Than in the Past? *American Economic Review: Insights*, March 2020.
- Martha Bailey, Connor Cole, and Catherine Massey. Simple Strategies for Improving Inference With Linked Data: A Case Study of the 1850–1930 IPUMS Linked Representative Historical Samples. *Historical Methods: A Journal of Quantitative and Interdisciplinary History*, 53(2):80–93, 2020. doi: 10.1080/01615440.2019.1630343. URL <https://doi.org/10.1080/01615440.2019.1630343>.

References II

- Ricardo Dahis, Emily Nix, and Nancy Qian. Choosing Racial Identity in the United States, 1880-1940. Working Paper 26465, National Bureau of Economic Research, November 2020. URL <http://www.nber.org/papers/w26465>.
- Donn L. Feir. The Long-term Effects of Forcible Assimilation Policy: The Case of Indian Boarding Schools. *Canadian Journal of Economics/Revue canadienne d'économique*, 49(2):433–480, 2016.
- Vasiliki Fouka. Backlash: The Unintended Effects of Language Prohibition in U.S. Schools after World War I. *The Review of Economic Studies*, 87(1):204–239, 2019.
- Vasiliki Fouka, Soumyajit Mazumder, and Marco Tabellini. From Immigrants to Americans: Race and Assimilation during the Great Migration. *The Review of Economic Studies*, 89(2):811–842, June 2021. ISSN 0034-6527. doi: [10.1093/restud/rdab038](https://doi.org/10.1093/restud/rdab038). URL <https://doi.org/10.1093/restud/rdab038>.

References III

Matthew T. Gregg. The Long-term Effects of American Indian Boarding Schools. *Journal of Development Economics*, 130:17 – 32, 2018.

Maggie Jones. The Intergenerational Legacy of Indian Residential Schools. Working paper, 2022.

Office of Indian Affairs. Annual Report of the Commissioner of Indian Affairs, For the Year 1900. Technical report, Washington, D.C.: G.P.O, 1900.