

Between Arab and White: Syrians and the Naturalization Law

[Work in Progress]

Donia Kamel
Paris School of Economics

NBER Race and Stratification Working Group
April 4, 2025

Motivation

- **Group classifications are a universal feature of human societies:**

Motivation

- **Group classifications are a universal feature of human societies:**
 - ▶ Humans instinctively categorize others and themselves into in-groups and out-groups, shaping social hierarchies, belonging, and access to opportunities (Allport, 1954; Blumer, 1958; Turner, 1986; Tajfel, 1987; 1994)

Motivation

- **Group classifications are a universal feature of human societies:**
 - ▶ Humans instinctively categorize others and themselves into in-groups and out-groups, shaping social hierarchies, belonging, and access to opportunities (Allport, 1954; Blumer, 1958; Turner, 1986; Tajfel, 1987; 1994)
 - ▶ These classifications are **malleable and context-dependent**, shaped by migration waves, perceived social distance, and group salience (Tajfel & Turner, 1986; Waters, 1990; Fouka, & Tabellini, 2022)

Motivation

- **Group classifications are a universal feature of human societies:**
 - ▶ Humans instinctively categorize others and themselves into in-groups and out-groups, shaping social hierarchies, belonging, and access to opportunities (Allport, 1954; Blumer, 1958; Turner, 1986; Tajfel, 1987; 1994)
 - ▶ These classifications are **malleable and context-dependent**, shaped by migration waves, perceived social distance, and group salience (Tajfel & Turner, 1986; Waters, 1990; Fouka, & Tabellini, 2022)
- **Legal institutions play a key role in reshaping group classifications:**

Motivation

- **Group classifications are a universal feature of human societies:**
 - ▶ Humans instinctively categorize others and themselves into in-groups and out-groups, shaping social hierarchies, belonging, and access to opportunities (Allport, 1954; Blumer, 1958; Turner, 1986; Tajfel, 1987; 1994)
 - ▶ These classifications are **malleable and context-dependent**, shaped by migration waves, perceived social distance, and group salience (Tajfel & Turner, 1986; Waters, 1990; Fouka, & Tabellini, 2022)
- **Legal institutions play a key role in reshaping group classifications:**
 - Political and legal changes can affect and redraw such classifications (Lopez, *White by Law*)

Motivation

- **Most legal policies have imposed barriers to immigrant integration**

Revised Citizenship Test Requires Immigrants To Name Every U.S. State Where They Not Welcome

Figure: Source: The Onion, Oct 2024

Motivation

- **Most legal policies have imposed barriers to immigrant integration**

Revised Citizenship Test Requires Immigrants To Name Every U.S. State Where They Not Welcome

Figure: Source: The Onion, Oct 2024

This paper: Arab immigrants “gaining” whiteness in 1915

Motivation

- **Most legal policies have imposed barriers to immigrant integration**

Revised Citizenship Test Requires Immigrants To Name Every U.S. State Where They Not Welcome

Figure: Source: The Onion, Oct 2024

This paper: Arab immigrants “gaining” whiteness in 1915

- The *Dow v. US* ruling granted Arabs (from Greater Syria) **legal whiteness**, allowing **naturalization**

Motivation

- Most legal policies have imposed barriers to immigrant integration

Revised Citizenship Test Requires Immigrants To Name Every U.S. State Where They Not Welcome

Figure: Source: The Onion, Oct 2024

This paper: Arab immigrants “gaining” whiteness in 1915

- The *Dow v. US* ruling granted Arabs (from Greater Syria) **legal whiteness**, allowing **naturalization**
- **Research Question:** How does legal inclusion affect immigrants’ assimilation efforts?

This project

RQ: How does legal inclusion affect immigrants' assimilation efforts?

The case of Arab immigrants after *Dow v. US* offers insight into how legal inclusion can influence cultural assimilation behaviors

This project

RQ: How does legal inclusion affect immigrants' assimilation efforts?

The case of Arab immigrants after *Dow v. US* offers insight into how legal inclusion can influence cultural assimilation behaviors

- Given the ↓ in cost of assimilation
 - **Assimilation** (names, intermarriage, residential integration) or **Cultural distinctiveness** (maintaining Arabic names, endogamy, ethnic enclaves)?

This project

RQ: How does legal inclusion affect immigrants' assimilation efforts?

The case of Arab immigrants after *Dow v. US* offers insight into how legal inclusion can influence cultural assimilation behaviors

- Given the ↓ in cost of assimilation
 - ▶ **Assimilation** (names, intermarriage, residential integration) or **Cultural distinctiveness** (maintaining Arabic names, endogamy, ethnic enclaves)?
- Uses the US census for within (Arab) family and Cohort DiD across groups to study assimilation through:
 - ▶ Naming patterns, intermarriage, and residential integration

This project

RQ: How does legal inclusion affect immigrants' assimilation efforts?

The case of Arab immigrants after *Dow v. US* offers insight into how legal inclusion can influence cultural assimilation behaviors

- Given the ↓ in cost of assimilation
 - ▶ **Assimilation** (names, intermarriage, residential integration) or **Cultural distinctiveness** (maintaining Arabic names, endogamy, ethnic enclaves)?
- Uses the US census for within (Arab) family and Cohort DiD across groups to study assimilation through:
 - ▶ Naming patterns, intermarriage, and residential integration
- Ongoing:
 - ▶ Text analysis on collected historical **Arab-American newspapers** & American newspapers
 - ▶ Novel **Arabic Name Americanization Index** using the bilingual: *Syrian Business Directory* (1908-1909)

Historical Context

- ▶ Naturalization Act (1870): naturalization limited to:

"aliens being free white persons and aliens of African nativity and to persons of African descent"

Historical Context

- ▶ Naturalization Act (1870): naturalization limited to:
"aliens being free white persons and aliens of African nativity and to persons of African descent"
- ▶ Age of Mass Migration (1850-1913): 30 million European immigrants to the US (Hatton and Williamson, 1998; Abramitzky et al., 2012)
→ Determining who qualified as "white" was contentious, especially during this period

Historical Context

- ▶ Naturalization Act (1870): naturalization limited to:
"aliens being free white persons and aliens of African nativity and to persons of African descent"
- ▶ Age of Mass Migration (1850-1913): 30 million European immigrants to the US (Hatton and Williamson, 1998; Abramitzky et al., 2012)
→ Determining who qualified as "white" was contentious, especially during this period
- ▶ Syrian Naturalization Question: **Naturalization Act** and its applicability to Syrians

Historical Context

- ▶ Naturalization Act (1870): naturalization limited to:
"aliens being free white persons and aliens of African nativity and to persons of African descent"
- ▶ Age of Mass Migration (1850-1913): 30 million European immigrants to the US (Hatton and Williamson, 1998; Abramitzky et al., 2012)
→ Determining who qualified as "white" was contentious, especially during this period
- ▶ Syrian Naturalization Question: **Naturalization Act** and its applicability to Syrians
- ▶ Arabs from Greater Syria:

Historical Context

- ▶ Naturalization Act (1870): naturalization limited to:
"aliens being free white persons and aliens of African nativity and to persons of African descent"
- ▶ Age of Mass Migration (1850-1913): 30 million European immigrants to the US (Hatton and Williamson, 1998; Abramitzky et al., 2012)
→ Determining who qualified as "white" was contentious, especially during this period
- ▶ Syrian Naturalization Question: **Naturalization Act** and its applicability to Syrians
- ▶ Arabs from Greater Syria:
 - ▶ Predominantly Christians from different denominations

Historical Context

- ▶ Naturalization Act (1870): naturalization limited to:
"aliens being free white persons and aliens of African nativity and to persons of African descent"
- ▶ Age of Mass Migration (1850-1913): 30 million European immigrants to the US (Hatton and Williamson, 1998; Abramitzky et al., 2012)
→ Determining who qualified as "white" was contentious, especially during this period
- ▶ Syrian Naturalization Question: **Naturalization Act** and its applicability to Syrians
- ▶ Arabs from Greater Syria:
 - ▶ Predominantly Christians from different denominations
 - ▶ Migrated due to: sectarian tensions, economic hardship, conscription into the Ottoman Army

Dow v United States

US Court of Appeals, Fourth Circuit, case where **George Dow**, a Syrian immigrant appealed two lower court decisions (Feb 1914 & April 1914) that denied his application for naturalization as a US citizen

Dow v United States

US Court of Appeals, Fourth Circuit, case where **George Dow**, a Syrian immigrant appealed two lower court decisions (Feb 1914 & April 1914) that denied his application for naturalization as a US citizen

In color, he was said to be “darker than the usual person of White European descent and of that tinge or sallow appearance which usually accompanies persons of descent other than purely European”.*

Dow v United States

US Court of Appeals, Fourth Circuit, case where **George Dow**, a Syrian immigrant appealed two lower court decisions (Feb 1914 & April 1914) that denied his application for naturalization as a US citizen

In color, he was said to be “darker than the usual person of White European descent and of that tinge or sallow appearance which usually accompanies persons of descent other than purely European”.*

Finally led to the naturalization of Dow based on:

“the generally received opinion...that inhabitants of a portion of Asia, including Syria,[are] to be classed as white persons.”

– *Circuit Judge Charles Albert Woods (September 15, 1915)*

This resulted in an extension of the privilege of being an American citizen to Arab Christians, (95% of the immigrants from the Arab world)

Outcome: Names (*Foreign Name Index*)

Following Fryer and Levitt (2004), Abramitzky et al. (2006), and Fouka (2019)

Outcome: Names (*Foreign Name Index*)

Following Fryer and Levitt (2004), Abramitzky et al. (2006), and Fouka (2019)

Measures the frequency of a name within an ethnic group relative to its frequency in the population at large.

Outcome: Names (*Foreign Name Index*)

Following Fryer and Levitt (2004), Abramitzky et al. (2006), and Fouka (2019)

Measures the frequency of a name within an ethnic group relative to its frequency in the population at large. In my context, I define it once from the **pre-period cohorts (1905-1914)**

$$FNI_{\text{Name},n} = \frac{P_r(\text{Name} | I_{n,\text{pre-period}})}{P_r(\text{Name} | I_{n,\text{pre-period}}) + P_r(\text{Name} | I_{N \setminus n,\text{pre-period}})} \times 100$$

Outcome: Names (*Foreign Name Index*)

Following Fryer and Levitt (2004), Abramitzky et al. (2006), and Fouka (2019)

Measures the frequency of a name within an ethnic group relative to its frequency in the population at large. In my context, I define it once from the **pre-period cohorts (1905-1914)**

$$FNI_{\text{Name},n} = \frac{P_r(\text{Name}|I_{n,\text{pre-period}})}{P_r(\text{Name}|I_{n,\text{pre-period}}) + P_r(\text{Name}|I_{N \setminus n,\text{pre-period}})} \times 100$$

- Stable benchmark of *foreignness* before the ruling
- Avoid feedback loop and bias where post-ruling naming behavior influences the measure itself

Outcome: Names (*Foreign Name Index*)

Following Fryer and Levitt (2004), Abramitzky et al. (2006), and Fouka (2019)

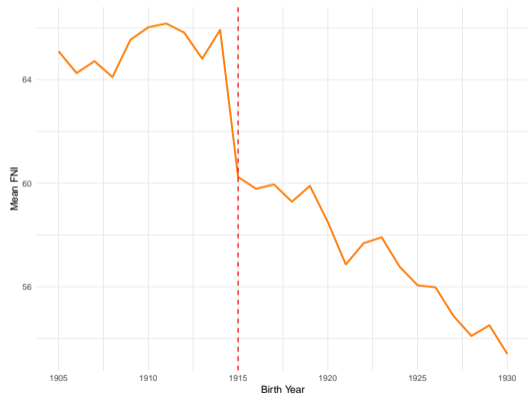
Measures the frequency of a name within an ethnic group relative to its frequency in the population at large. In my context, I define it once from the **pre-period cohorts (1905-1914)**

$$FNI_{\text{Name},n} = \frac{P_r(\text{Name}|I_{n,\text{pre-period}})}{P_r(\text{Name}|I_{n,\text{pre-period}}) + P_r(\text{Name}|I_{N \setminus n,\text{pre-period}})} \times 100$$

- Stable benchmark of *foreignness* before the ruling
- Avoid feedback loop and bias where post-ruling naming behavior influences the measure itself
- Measuring how the distribution of naming choices evolves relative to a **consistent reference**

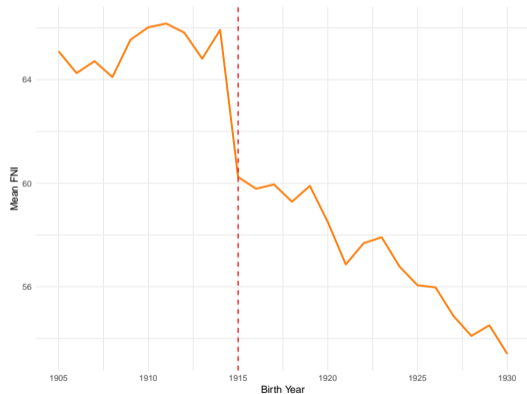
Descriptives: shift towards less Arab names

Around 64 in the pre-period, falls strongly post 1914

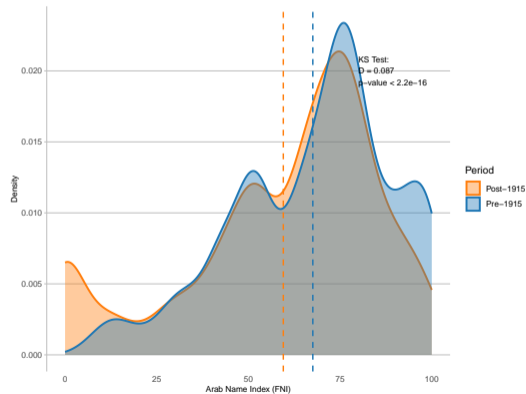


Descriptives: shift towards less Arab names

Around 64 in the pre-period, falls strongly post 1914



FNI distributions (pre and post) significantly different from each other. E.g. Shafik/Nassif \approx FNI = 100, Wesley/Marvin \approx FNI = 0



Most Common Names

Pre-Period	FNI	Post-Period	FNI
George	77.89	George	77.89
Joseph	72.45	Joseph	72.45
John	49.93	John	49.93
Edward	65.45	Edward	65.45
Fareed	100.00	Albert	64.64
Abraham	93.18	Louis	69.08
Michael	86.27	James	50.89

Within-family analysis

Using the 1920 US census

$$\text{FNI}_{ij\text{sco}} = \beta_1 \mathbf{PostDow}_i + \alpha_j + \lambda_s + \gamma_c + \delta_o + \varepsilon_{ij\text{sco}}$$

Within-family analysis

Using the 1920 US census

$$\text{FNI}_{ijSCO} = \beta_1 \mathbf{PostDow}_i + \alpha_j + \lambda_s + \gamma_c + \delta_o + \varepsilon_{ijSCO}$$

where:

- ▶ FNI_{ijSCO} : Foreign Name Index of child i in family j , born in state s , living in county c , and has birth order o
- ▶ $\mathbf{PostDow}_i$: 1 if born in or after 1915, 0 otherwise
- ▶ Fixed effects: α_j : household (or mother), λ_s : state of birth, γ_c : county of residence δ_o : birth order
- ▶ Standard errors clustered at the household level

Within-family analysis

Using the 1920 US census

$$\text{FNI}_{ijSCO} = \beta_1 \mathbf{PostDow}_i + \alpha_j + \lambda_s + \gamma_c + \delta_o + \varepsilon_{ijSCO}$$

where:

- ▶ FNI_{ijSCO} : Foreign Name Index of child i in family j , born in state s , living in county c , and has birth order o
- ▶ $\mathbf{PostDow}_i$: 1 if born in or after 1915, 0 otherwise
- ▶ Fixed effects: α_j : household (or mother), λ_s : state of birth, γ_c : county of residence δ_o : birth order
- ▶ Standard errors clustered at the household level
- ▶ Sample: all men born in the US to an Arab father, who live in the same household as their father and at least one male sibling, and who were 15 years old or younger at census time
- ▶ 1920 census: to abstract from bias that (much) older siblings in the same household could mean a lower assimilation profile of this family

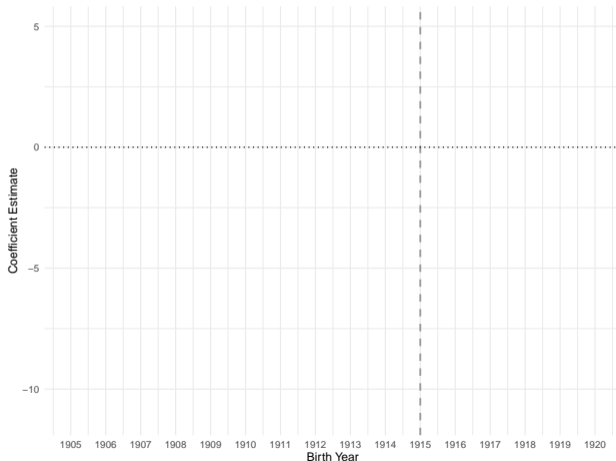
▶ Co-habitation

▶ Co-habitation: women

Event Study

After Dow, Arab children received less foreign/Arab names, even within the same family

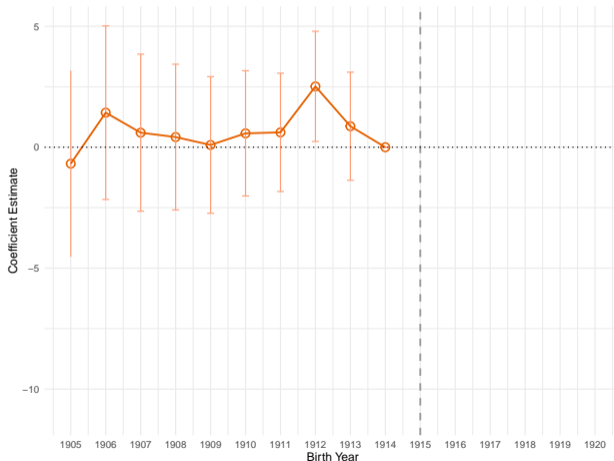
From \approx *Basel* (65.66) \rightarrow *Ralf* (57.81) or *Danny* (57.79) [▶ Table & Heterogenous responses](#)



Event Study

After Dow, Arab children received less foreign/Arab names, even within the same family

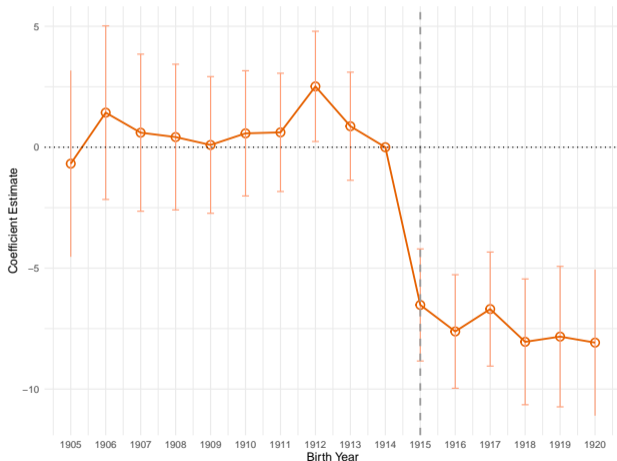
From \approx Basel (65.66) \rightarrow Ralf (57.81) or Danny (57.79) [▶ Table & Heterogenous responses](#)



Event Study

After Dow, Arab children received less foreign/Arab names, even within the same family

From \approx Basel (65.66) \rightarrow Ralf (57.81) or Danny (57.79) [▶ Table & Heterogenous responses](#)



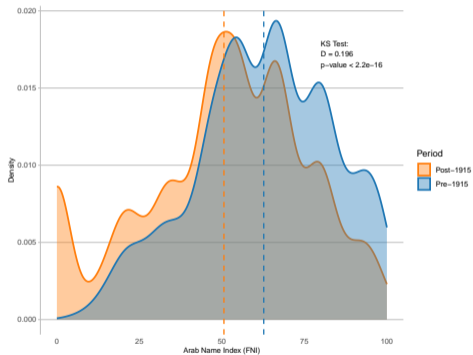
Stronger effects for US-born women to Arab fathers

Aligning with the sociology literature (Rossi 1965; Sue & Telles 2007)

From \approx *Nellie* (FNI = 64) \rightarrow or *Lucie* (FNI = 54)

Stronger effects for US-born women to Arab fathers

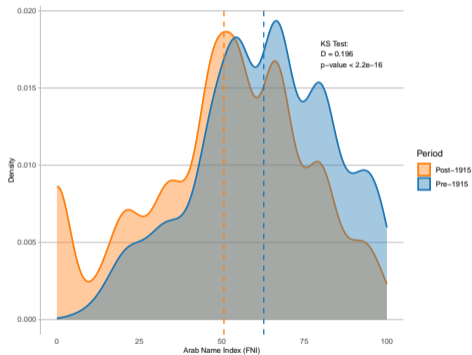
Aligning with the sociology literature (Rossi 1965; Sue & Telles 2007)
From \approx *Nellie* (FNI = 64) \rightarrow or *Lucie* (FNI = 54)



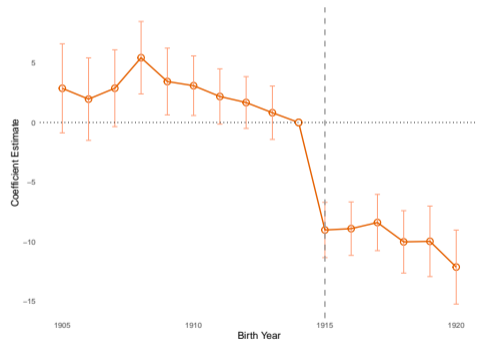
► Mean FNI

Stronger effects for US-born women to Arab fathers

Aligning with the sociology literature (Rossi 1965; Sue & Telles 2007)
From \approx *Nellie* (FNI = 64) \rightarrow or *Lucie* (FNI = 54)



► Mean FNI



► Table

Across Groups

Similar pattern when comparing across different control groups

Cohort Diff-in Diff:

$$\begin{aligned} \text{FNI}_{i\text{in}sc} = & \alpha + \beta_1 \text{Arab}_i + \beta_2 \text{PostDow}_i \\ & + \beta_3 (\text{Arab}_i \times \text{PostDow}_i) + \gamma_n \\ & + \delta_c + \phi_s + \epsilon_{i\text{in}sc} \end{aligned}$$

- ▶ β_3 : captures the differential effect of the Dow ruling on second-generation Arabs relative to the control group

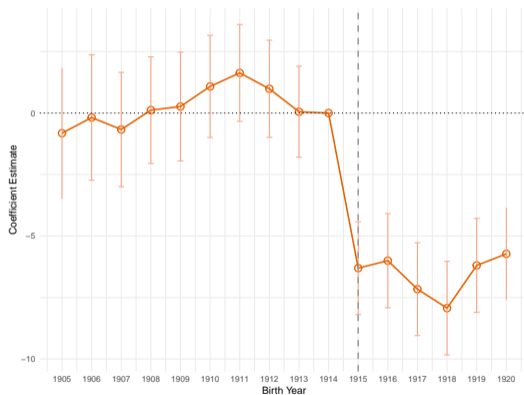
Across Groups

Similar pattern when comparing across different control groups

Cohort Diff-in Diff:

$$\begin{aligned} \text{FNI}_{i\text{inSC}} = & \alpha + \beta_1 \text{Arab}_i + \beta_2 \text{PostDow}_i \\ & + \beta_3 (\text{Arab}_i \times \text{PostDow}_i) + \gamma_n \\ & + \delta_c + \phi_s + \epsilon_{i\text{inSC}} \end{aligned}$$

- ▶ β_3 : captures the differential effect of the Dow ruling on second-generation Arabs relative to the control group
- ▶ Poles: generally perceived as white → clear contrast (preferred specification)
- ▶ Other minority immigrant groups with varying levels of legal ambiguity
- ▶ Figure's control group: US born men to Polish fathers



▶ Table: Arabs vs Poles

▶ Other Minorities Results

Intermarriage and Residential Integration

- ▶ Decisions not fully under the control of the individual
- ▶ Depend on coordination with natives and their attitudes

Intermarriage and Residential Integration

- ▶ Decisions not fully under the control of the individual
- ▶ Depend on coordination with natives and their attitudes
- ▶ Stacked repeated cross-sectional datasets: census waves 1900-1930 → *suggestive* evidence, next steps discussed
- ▶ Comparing Arabs and Poles

Intermarriage and Residential Integration

- ▶ Decisions not fully under the control of the individual
- ▶ Depend on coordination with natives and their attitudes
- ▶ Stacked repeated cross-sectional datasets: census waves 1900-1930 → *suggestive* evidence, next steps discussed
- ▶ Comparing Arabs and Poles
- ▶ Intermarriage:
 - ▶ Sample: 1G, married male immigrants, at least 15 years old from each census wave
 - ▶ = 1 if Arab/Pole men married a native white with native parentage

Intermarriage and Residential Integration

- ▶ Decisions not fully under the control of the individual
- ▶ Depend on coordination with natives and their attitudes
- ▶ Stacked repeated cross-sectional datasets: census waves 1900-1930 → *suggestive* evidence, next steps discussed
- ▶ Comparing Arabs and Poles
- ▶ Intermarriage:
 - ▶ Sample: 1G, married male immigrants, at least 15 years old from each census wave
 - ▶ = 1 if Arab/Pole men married a native white with native parentage
- ▶ Residential choices:
 - ▶ Enumeration occurring door-to-door until 1960 → infer neighbours
 - ▶ At the household head level to avoid double counting
 - ▶ = 1 if Arab/Pole (immigrant) head of the household had at least one native white neighbour of native parentage

Mixed Results

Pre-1920 intermarriage rate: 5%

Table: Intermarriage and Residential Integration

	Intermarriage (1)	Residential Integration (2)
Arab	2.504*** (0.306)	1.471*** (0.277)
Post-Dow x Arab	3.017*** (0.339)	-0.728* (0.295)
Observations	939,481	975,843
Adj. R ²	0.119	0.053
Individual controls	Yes	Yes
FE: County-Year	Yes	Yes
FE: State-Year	Yes	Yes
FE: County	Yes	Yes

▶ Shares: Arab men and women

Conclusion and Next Steps

- Arabs responded to *Dow v. US*—which classified them as white—by adopting less foreign-sounding names and increasing intermarriage, indicating **assimilation** when legal barriers were lowered

Conclusion and Next Steps

- Arabs responded to *Dow v. US*—which classified them as white—by adopting less foreign-sounding names and increasing intermarriage, indicating **assimilation** when legal barriers were lowered
- Ongoing:
 - ▶ Improve intermarriage results by inferring year of marriage through birth year of first born
 - ▶ Apply Arab Name Americanization Index ▶ Syrian Business Directory
 - ▶ Text analysis on **Arab-American newspapers** & American newspapers ▶ Arab ▶ American
 - ▶ Compare and test for spillovers with: Armenians (legal whiteness in 1925), Japanese (legal exclusion in 1923)

Conclusion and Next Steps

- Arabs responded to *Dow v. US*—which classified them as white—by adopting less foreign-sounding names and increasing intermarriage, indicating **assimilation** when legal barriers were lowered
- Ongoing:
 - ▶ Improve intermarriage results by inferring year of marriage through birth year of first born
 - ▶ Apply Arab Name Americanization Index ▶ Syrian Business Directory
 - ▶ Text analysis on **Arab-American newspapers** & American newspapers ▶ Arab ▶ American
 - ▶ Compare and test for spillovers with: Armenians (legal whiteness in 1925), Japanese (legal exclusion in 1923)
- New outcomes:
 - ▶ Economic: wages, occupations, years of education, Political: naturalization rates, voting behaviour

Conclusion and Next Steps

- Arabs responded to *Dow v. US*—which classified them as white—by adopting less foreign-sounding names and increasing intermarriage, indicating **assimilation** when legal barriers were lowered
- Ongoing:
 - ▶ Improve intermarriage results by inferring year of marriage through birth year of first born
 - ▶ Apply Arab Name Americanization Index ▶ Syrian Business Directory
 - ▶ Text analysis on **Arab-American newspapers** & American newspapers ▶ Arab ▶ American
 - ▶ Compare and test for spillovers with: Armenians (legal whiteness in 1925), Japanese (legal exclusion in 1923)
- New outcomes:
 - ▶ Economic: wages, occupations, years of education, Political: naturalization rates, voting behaviour
- We know from the work of Abramitzky and Boustan that immigrants assimilate → quantify the *differential* rate of assimilation due to *Dow v US*

Appendix

How was Whiteness Defined and Legalized?

- Whiteness was both a legal and social category tied to rights and citizenship (Lopez, 1996)
- Defined through:

How was Whiteness Defined and Legalized?

- Whiteness was both a legal and social category tied to rights and citizenship (Lopez, 1996)
- Defined through:
 - ▶ **Scientific Racism:** Pseudoscience (e.g., skull measurements, genetics) (Gould, 1981)
 - ▶ **Common Sense Whiteness:** Court decisions based on public perception

How was Whiteness Defined and Legalized?

- Whiteness was both a legal and social category tied to rights and citizenship (Lopez, 1996)
- Defined through:
 - **Scientific Racism:** Pseudoscience (e.g., skull measurements, genetics) (Gould, 1981)
 - **Common Sense Whiteness:** Court decisions based on public perception
- **Key legal cases:**

How was Whiteness Defined and Legalized?

- Whiteness was both a legal and social category tied to rights and citizenship (Lopez, 1996)
- Defined through:
 - **Scientific Racism:** Pseudoscience (e.g., skull measurements, genetics) (Gould, 1981)
 - **Common Sense Whiteness:** Court decisions based on public perception
- **Key legal cases:**
 - *Ozawa v. U.S.* (1922) – Japanese denied whiteness

How was Whiteness Defined and Legalized?

- Whiteness was both a legal and social category tied to rights and citizenship (Lopez, 1996)
- Defined through:
 - ▶ **Scientific Racism:** Pseudoscience (e.g., skull measurements, genetics) (Gould, 1981)
 - ▶ **Common Sense Whiteness:** Court decisions based on public perception
- **Key legal cases:**
 - ▶ *Ozawa v. U.S.* (1922) – Japanese denied whiteness
 - ▶ *Thind v. U.S.* (1923) – Indians denied whiteness despite scientific claims

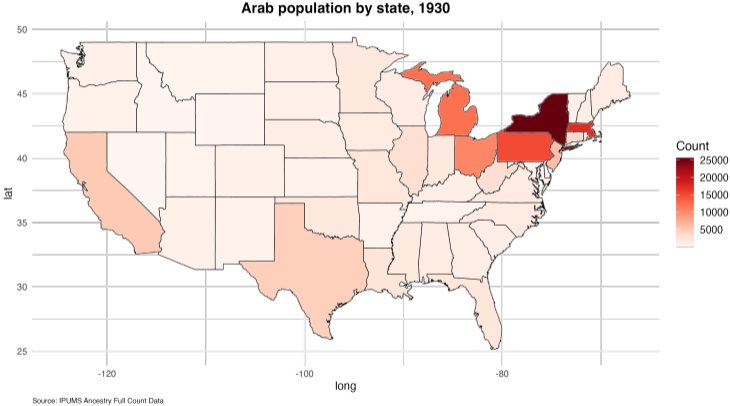
How was Whiteness Defined and Legalized?

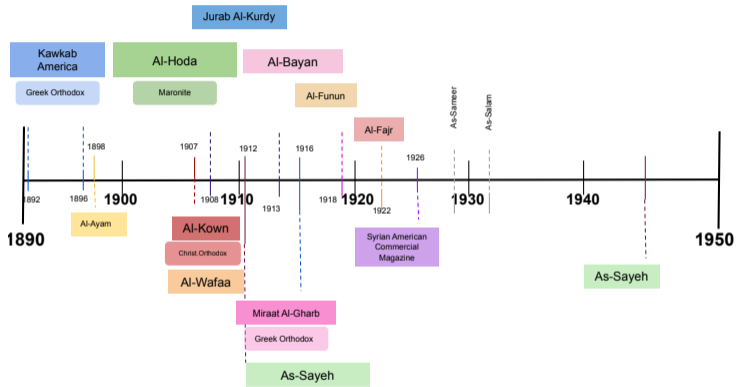
- Whiteness was both a legal and social category tied to rights and citizenship (Lopez, 1996)
- Defined through:
 - ▶ **Scientific Racism:** Pseudoscience (e.g., skull measurements, genetics) (Gould, 1981)
 - ▶ **Common Sense Whiteness:** Court decisions based on public perception
- **Key legal cases:**
 - ▶ *Ozawa v. U.S.* (1922) – Japanese denied whiteness
 - ▶ *Thind v. U.S.* (1923) – Indians denied whiteness despite scientific claims
 - ▶ *Dow v. U.S.* (1915) – Arabs classified as white

How did Groups Gain Whiteness?

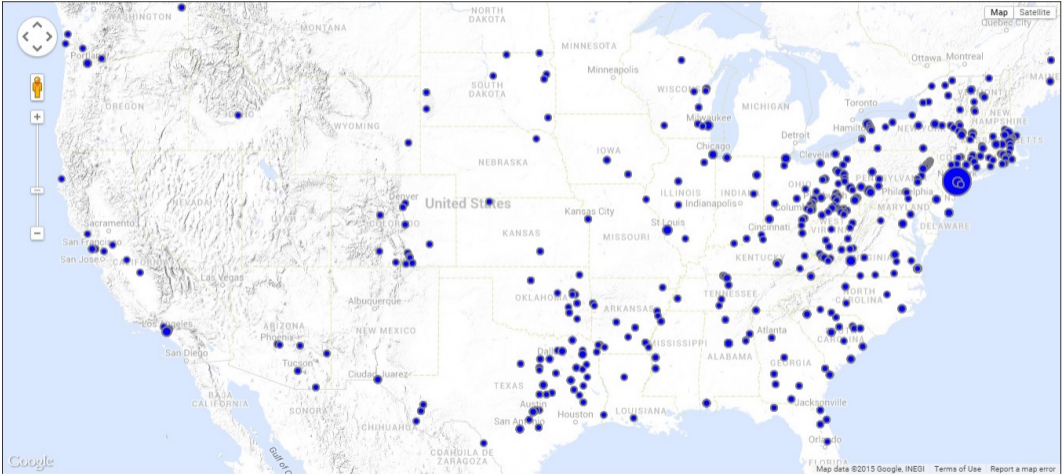
Group	Initially White?	Path to Whiteness
Irish	No	Political power, distancing from Black Americans (Roediger, 1991)
Italians	No	Cultural assimilation, socioeconomic mobility, distancing from other r
Jews	No	Economic mobility, post-WWII integration, suburbanization (Brodkin, 19
Mexicans	Mixed	Legal ambiguity, partial inclusion (Foley, 1999)
Asians	No	Explicit court rejection (Ngai, 2004)
Arabs	No	Legal victory in <i>Dow v. U.S.</i> (Gualtieri, 2009)

Arab population by state





Map: Syrian American Businesses (1908-1909)



NYC Arab-American Businesses

NEW YORK CITY.		مدينة نيويورك	
Bankers & Brokers.		(صياغة)	
D. J. Faour & Bros.	63 Washington	حدث الجبه	دانيال يوسف فاوور واخوانه
Pedro Caram & Co.	68 West	دايتا	بطرس كرم وشركاه
Petrus Saad & Bros.	59 Washington	بسكتا	بطرس سعد واخوانه
Salim Elias & T. Abdou.	54 Washington	بسكتا	سليم بك الياص وطانوس بك عبده
Barbers.		(حلاقين)	
Elias Daher.	24 1/2 Rector	بيروت	الياص ضاهر
Jos. Gabriel Simon,	18 West	مملكة الدامور	يوسف جبرائيل سمعان
Brass Importers.		(تجار الأواني النحاسية)	
Amin N. Kouri & Co.	30 E. 20th.	بيروت	امين قنولا المحوري وشركاه
Kateb Bros.	36 E. 21st.	الشام	كاتب اخوان
Kawam Bros.	60-62 Washington	الشام	{ انطون خوام } { خوام اخوان } { الياص خوام } { يوسف خوام }
Marrash Bros.	1 Carlisle	الشام	مراش اخوان
Carpenters.		(نجارون)	
David Farah,	139 Washington	الشام	داود فرح
Elias Abraham,	10 Washington	المتين	الياص ابراهيم
George Tabet,	144 Liberty	بيروت	جوج تابت
Gibran Abdou Mejdalani,	10 Washington	الشام	جبران عبده مجدلافي
Hafez Abdou,	6 Washington	الشام	حافظ عبده
Jamil Azaar,	51 Dey	الشام	جميل ازار
John Sirgany,	54 Washington	زحلة	حنا السرفاني

New Names

	New Name		P(Name is American)	
	(1)	(2)	(3)	(4)
Post-Dow	4.406*** (0.300)	4.551*** (0.364)	-3.460*** (0.428)	-3.142*** (0.543)
Observations	42,081	42,081	42,081	42,081
R ²	0.016	0.449	0.023	0.453
Linear trend	X	X	X	X
State of Birth	X	X	X	X
County		X		X
Mother ID		X		X
Birth Order		X		X

+ $p < 0.1$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Standard errors in parentheses. Clustered at county level in (2) and (4).

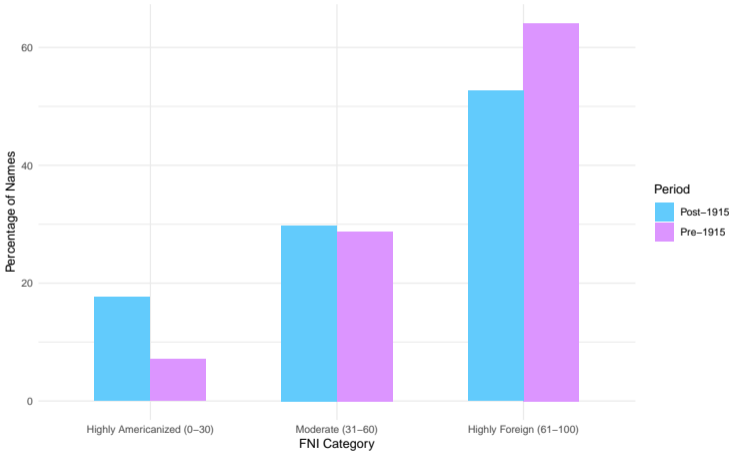
Top Names

Table: Top 10 Names That Became More Common Post-Treatment

First Name	Count Pre	FNI	Count Post	Freq Change
GEORGE	1099	77.14	3346	2247
JOSEPH	676	70.33	2336	1660
JOHN	620	47.67	2073	1453
EDWARD	519	67.40	1533	1014
ALBERT	282	67.10	1129	847
JAMES	395	51.81	1067	672
CHARLES	295	53.32	917	622
WILLIAM	342	40.66	964	622
ROBERT	64	17.05	603	539
LOUIS	222	70.40	748	526

◀ Back

Top Names



Cohort Difference in Differences

Using the 1930 census

$$FNI_{in} = \alpha + \beta_1 Arab_i + \beta_2 PostDow_i + \beta_3 (Arab_i \times PostDow_{it}) + \gamma_n + \delta_c + \phi_s + \epsilon_{it}$$

where:

- ▶ i : (male) individuals, n : nationalities, c : birth cohorts (1905-1930), s : state of birth
- ▶ $Arab_i$ indicator equal to 1 if the US-born child has an Arab father
- ▶ $PostDow_i$: indicator equal to 1 if individual i was born on or after 1915, and 0 otherwise
- ▶ β_3 : captures the differential effect of the Dow ruling on second-generation Arabs relative to the control group
- ▶ Fixed effects: δ_c (birth year), ϕ_s (state of birth), γ_n (nationality, for some specifications)
- ▶ Heteroskedasticity robust standard errors
- ▶ FNI_{in} : Pre-defined FNI [◀ Back](#)

DiD results: Arabs vs Poles

Dependent Variable: Foreign Name Index (Mean: 65.66)					
	(1)	(2)	(3)	(4)	(5)
Arab	0.750*** (0.215)	0.779*** (0.215)	0.771*** (0.215)	2.465*** (0.229)	2.894*** (0.264)
Post-Dow x Arab	-7.314*** (0.329)	-7.337*** (0.329)	-7.322*** (0.329)	-7.545*** (0.330)	-6.934*** (0.391)
Observations	460,503	460,503	460,503	460,503	460,498
Adj. R ²	0.002	0.002	0.002	0.008	0.020
Linear Trend		X			
Birth Year			X	X	X
State of Birth				X	X
County-Year					X

Notes: Standard errors in parentheses are heteroskedasticity-robust. Significance levels: *** p<0.01, ** p<0.05, * p<0.1. Dependent variable: Foreign Name Index (FNI).

◀ Back

FNI results: different minority groups

Same overall pattern, post-Dow, Arabs named their children less foreign/Arab names

Col 1, control group: US-born children to a Chinese/Japanese/Filipino father. Col 2, same + Mexican, Cuban, Puerto Ricans, Indians, Cubans and Greek. Col 3, only Greeks.

	(1)	(2)	(3)
Arab	5.826*** (0.613)	-0.106 (0.257)	-6.301*** (0.355)
Post-Dow x Arab	-0.013 (0.568)	-6.034*** (0.279)	-2.506*** (0.393)
Observations	79,927	355,468	111,184
Adj. R-squared	0.0376	0.0840	0.0349
FE: Birth year	Yes	Yes	Yes
FE: State of birth	Yes	Yes	Yes

Heteroscedasticity-robust standard errors in parentheses.

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table: Effects of Dow Ruling on Foreign Name Index (FNI)

	FNI		
	(1)	(2)	(3)
Arab	3.503*** (0.982)	-1.763*** (0.390)	-6.421*** (0.464)
Post-Dow x Arab	0.744 (1.093)	-3.865*** (0.435)	-1.988*** (0.513)
Observations	79,927	355,468	111,184
Adj. R ²	0.0370	0.1257	0.0551
FE: Birth Year	Yes	Yes	Yes
FE: State of Birth	Yes	Yes	Yes
FE: County-Year	Yes	Yes	Yes

Syrian Business Directory (1908-1909)

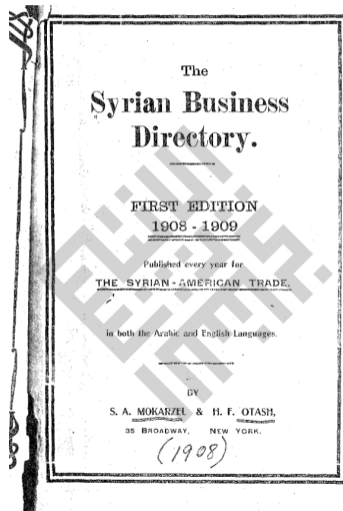
Digitized and geo-located

Overview:

- Voluntary registry of Arab-American business owners
- 3000+ entries with info on: names of owners in Arabic and the Americanized English names, business type, industry, and address, the address where they came from in the Middle East

[▶ Map](#) [▶ NYC](#)

[▶ Arabic Name Americanization Index](#) [◀ Back](#)



Name Americanization

- Americanization indices better capture conformity to American naming norms

Name Americanization

- Americanization indices better capture conformity to American naming norms
- Beyond the use of Naturalization Records (Biavaschi, 2017; Fouka, 2019) → bilingual record **Syrian Business Directory**

◀ Back

Name Americanization

- Americanization indices better capture conformity to American naming norms
- Beyond the use of Naturalization Records (Biavaschi, 2017; Fouka, 2019) → bilingual record **Syrian Business Directory**
- *Mapping* of names is the basis for potential and common **Name Americanization Paths**

Carpenters.		(نجارون)	
David Farah,	139 Washington	الشام	• داود فرح
Elias Abraham,	10 Washington	المتين	• الياس ابراهيم
Kairallah Abboud,	10 Washington	المتين	• خيرالله عبود
Kalil Abboud,	6 Washington	الشام	• خليل عبود

◀ Back

Name Americanization

- Americanization indices better capture conformity to American naming norms
- Beyond the use of Naturalization Records (Biavaschi, 2017; Fouka, 2019) → bilingual record **Syrian Business Directory**
- *Mapping* of names is the basis for potential and common **Name Americanization Paths**
- After processing, a **dictionary** of: Arabic name - transliteration - English name

Carpenters.		(نجارون)	
David Farah,	139 Washington	الشام	• داود فرح
Elias Abraham,	10 Washington	المتين	• الياس ابراهيم
Kairallah Abboud,	10 Washington	المتين	• خيرالله عبود
Kalil Abboud,	6 Washington	الشام	• خليل عبود

Transliteration methodology

General rules

1. **Consonants:** Each Arabic consonant is mapped to its closest English equivalent
2. **Vowels:** Arabic vowels, which can sometimes be implied, are represented based on common pronunciation
3. **Special Characters:** Arabic letters that don't have direct English equivalents are approximated using combinations of English letters

Consonants examples

- ا (Alif): Often represented as 'A' or omitted if it starts a word (e.g., 'إلياس' -> 'Ilyas')
- ث (Tha): 'th'
- ح (Ha): 'h'
- خ (Kha): 'kh'
- ع (Ayn): Often represented as an apostrophe (') or omitted (e.g., 'عبدالله' -> 'Abdullah')
- غ (Ghayn): 'gh'

Vowels

- **Short Vowels:** Not always written in Arabic but implied in transliteration
 - َ (Fatha): 'a'
 - ِ (Kasra): 'i'
 - ُ (Damma): 'u'
- **Long Vowels:**
 - ا (Alif): 'a'
 - و (Waw): 'u'
 - ي (Ya): 'i'

Special Considerations

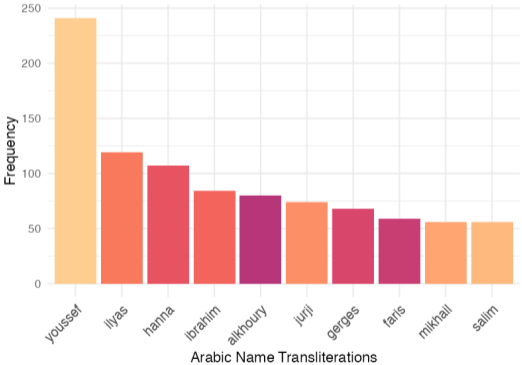
- **Double Letters:** Sometimes, Arabic has doubled letters for emphasis, which are maintained in transliteration (e.g., 'عبدالله' -> 'Abdullah')
- **Ayn ('ع') and Hamza ('أ'):** These can be tricky. 'ع' is often left out or represented as an apostrophe ('), while 'أ' is usually omitted unless it's necessary to indicate a glottal stop

Transliteration example

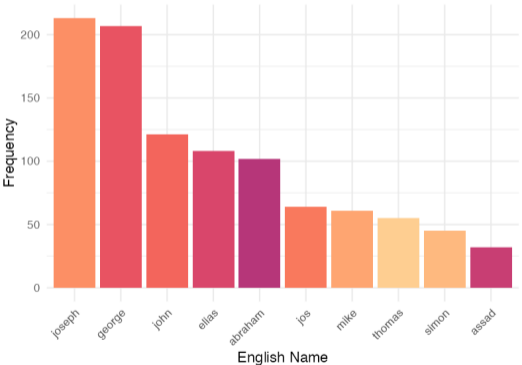
Arabic name		Arabic Transliteration
إلياس	→	Ilyas
ابراهيم	→	Ibrahim
جرجي	→	Jurji

Top names

Top 10 Arabic Name Transliterations



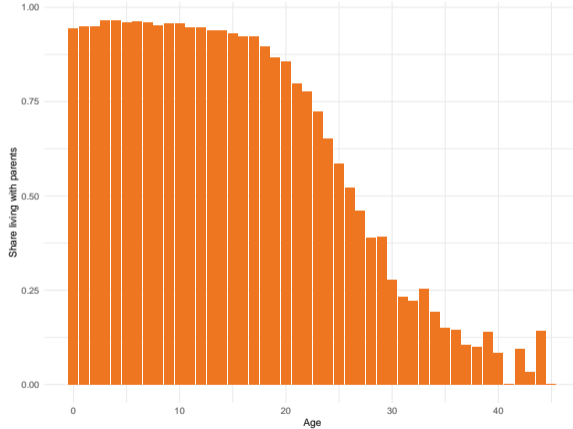
Top 10 English Names



◀ Back

Co-habitation

Co-habitation by age was quite high among Arab men



Co-habitation: women

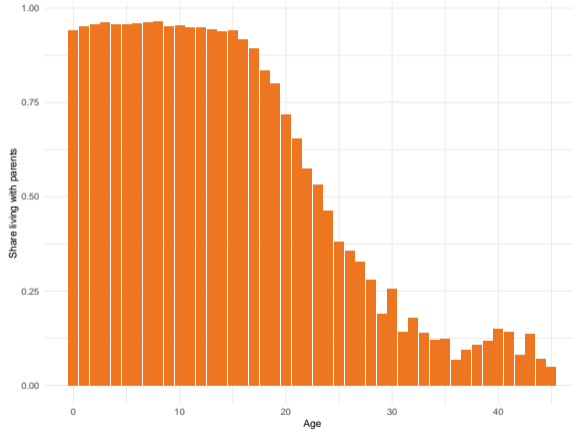
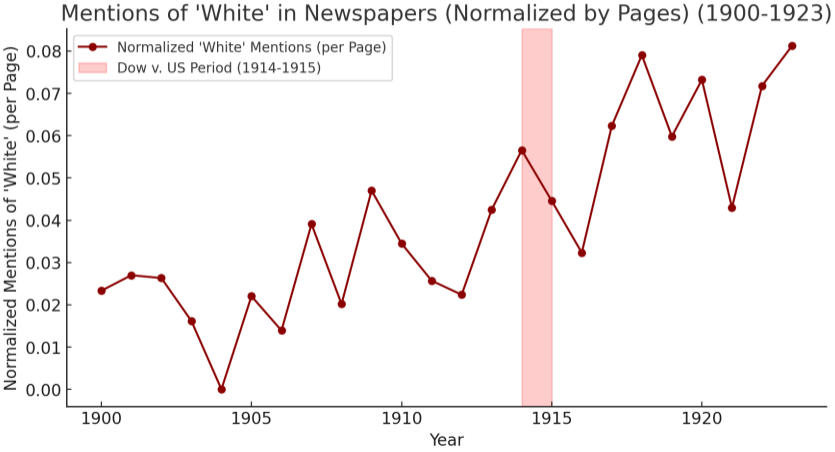


Table: Number of US-born Males by Father's Ethnicity

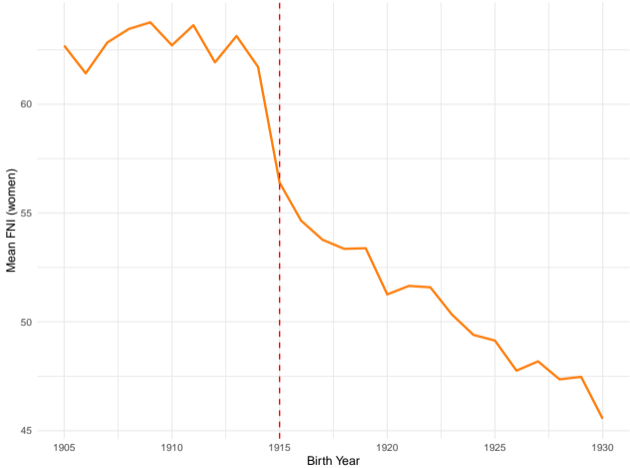
Ethnicity	Pre-Dow Count	Post-Dow Count
Arab	12,288	41,291
Polish	176,043	408,094
Japanese	5,080	29,543
Chinese	1,861	4,952
Filipino	126	1,625
Indian	341	927
Mexican	39,252	189,572
Puerto Rican	554	5,398
Cuban	1,810	3,372
Greek	7,229	55,489

▶ Back

Keyword search in Arabic-American Newspapers



Mean FNI for women



Within family: female

Greater effects for women

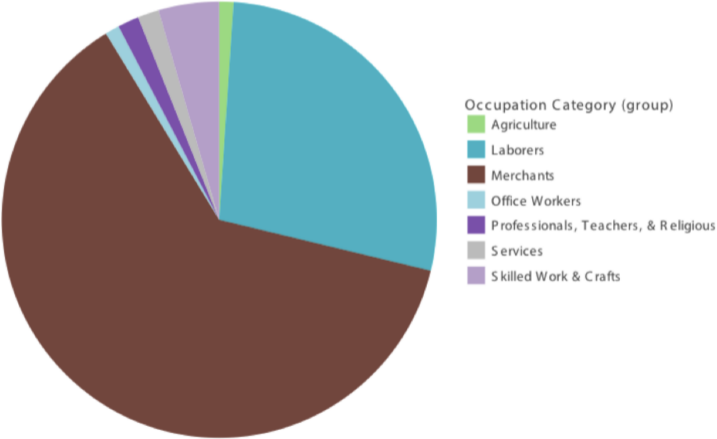
From \approx *Nellie* \rightarrow or *Lucie*

<i>Dep Var: Foreign Name Index (Mean = 64.02)</i>					
	(1)	(2)	(3)	(4)	(5)
Post-Dow	-10.97*** (0.3782)	-8.518*** (0.6544)	-11.17*** (0.3804)	-9.648*** (0.7463)	-9.547*** (0.7542)
Linear trend		X			
State of Birth			X	X	X
Household ID				X	
Birth Order				X	X
County				X	X
Mother ID					X
Observations	15,861	15,861	15,861	15,861	15,861
R ²	0.05089	0.05203	0.05950	0.48149	0.49144

*Signif. Codes: ***: 0.01, **: 0.05, *: 0.1*

Occupations: 1900

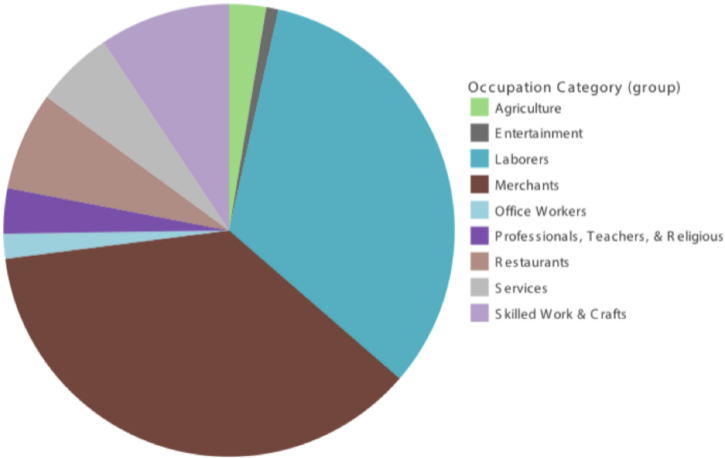
Source: Khayrallah Center for Lebanese Studies



◀ Back: Data

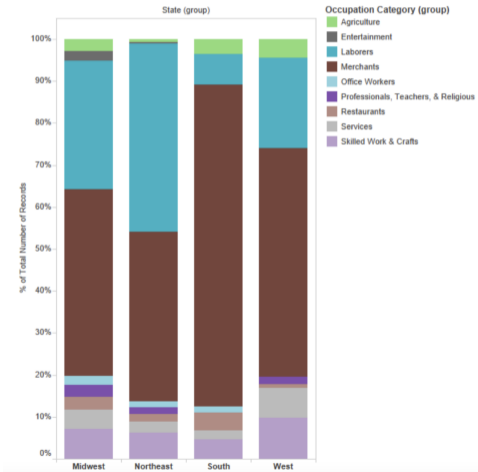
Occupations: 1940

Source: Khayrallah Center for Lebanese Studies



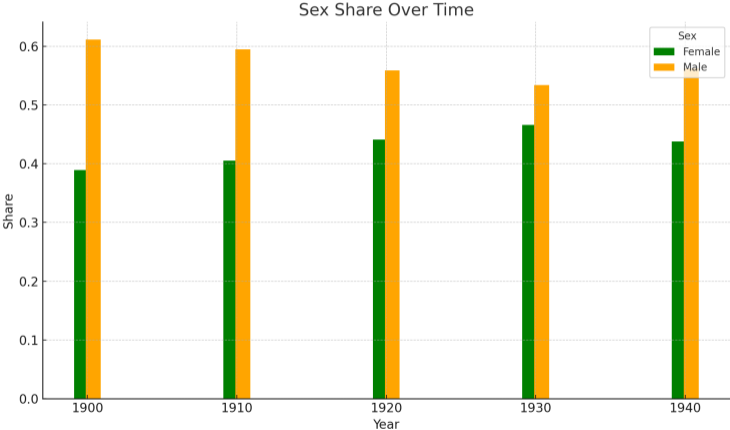
Occupations by region

Source: Khayrallah Center for Lebanese Studies



◀ Back: Data

Shares of Arab Men and Women



Regression: heterogeneity

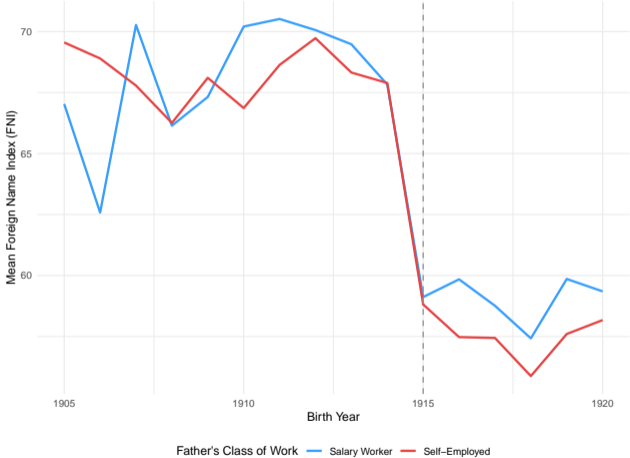
Table: Regression Results by Father Characteristics

Dependent Variable: Model:	Occ Score		Share of diaspora in state		FNI Father's years in the US		Father's literacy		Father's class of work	
	Below Median	Above Median	Below Median	Above Median	Below Median	Above Median	Illiterate	Literate	Employed	Self-employed
Post-Dow	-9.67*** (1.28)	-9.25*** (1.22)	-11.6*** (1.23)	-7.67*** (0.921)	-9.53*** (1.35)	-9.17*** (1.18)	-7.45*** (1.48)	-9.64*** (0.901)	-9.08*** (1.26)	-10.0*** (1.23)
Fixed Effects										
Household ID	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
State of Birth	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Birth Order	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
County	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	6,066	6,695	7,049	9,886	7,420	8,726	4,168	11,978	5,928	6,833
R ²	0.49609	0.48929	0.48480	0.48785	0.59795	0.57797	0.46262	0.49911	0.50768	0.47859
Median		25		0.13%		11		-		-

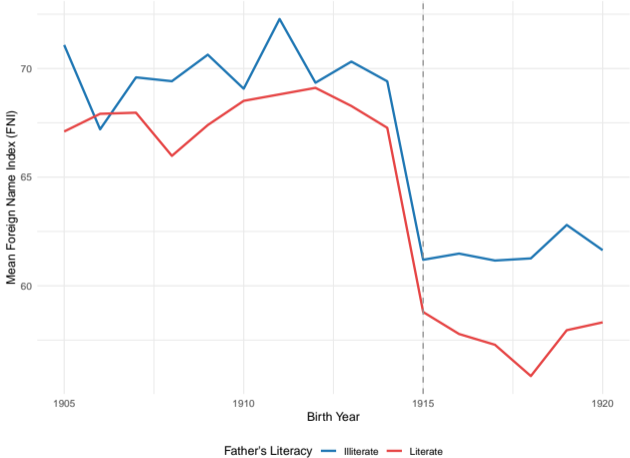
Clustered (household) standard-errors in parentheses
 Signif. Codes: ***: 0.01, **: 0.05, *: 0.1

◀ Back

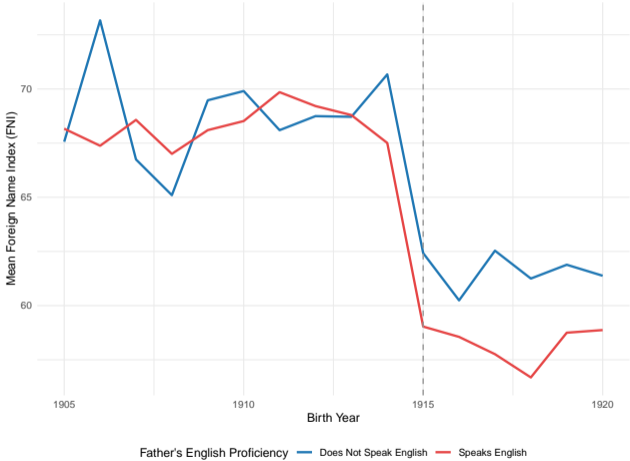
Father's class of work



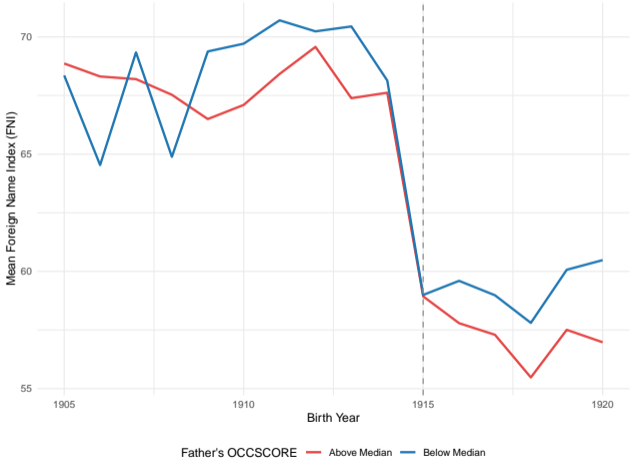
Father's literacy



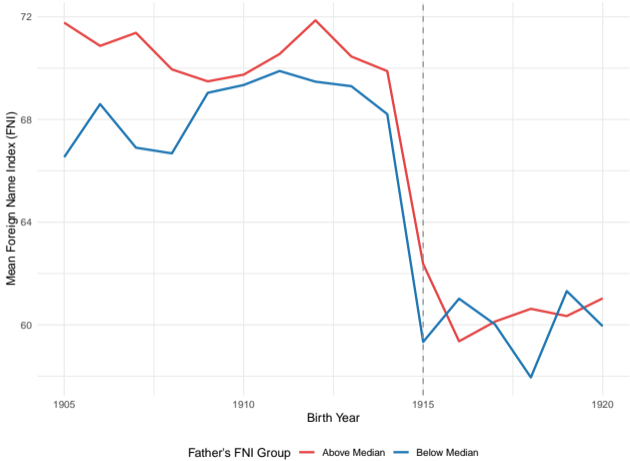
Father speaking English



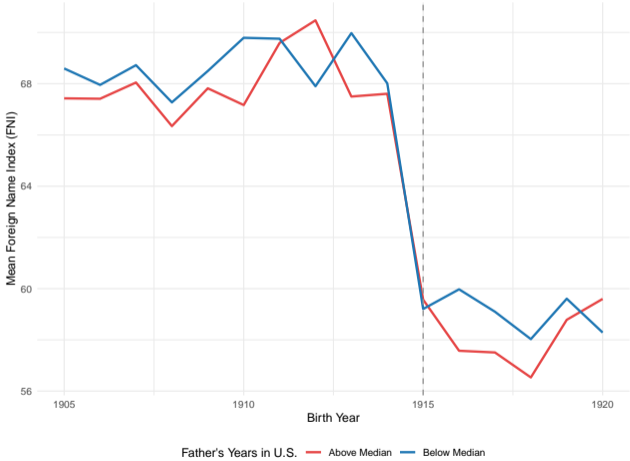
Father's occupation score



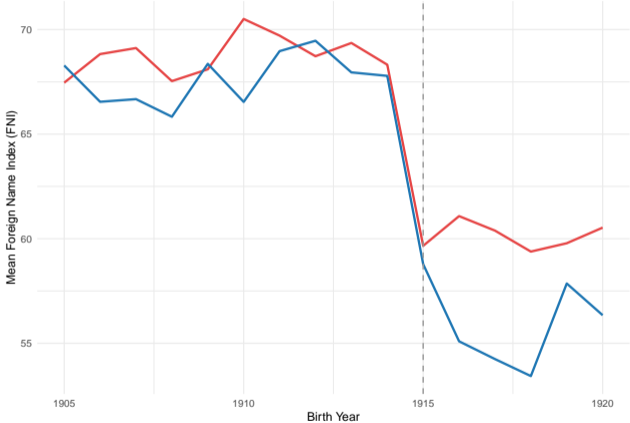
Father's FNI



Father's years in the US



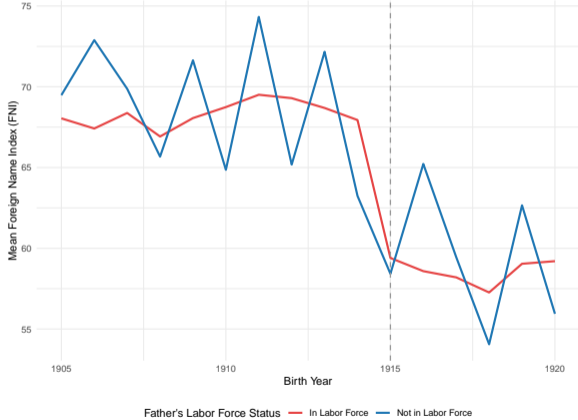
Share of the Arab diaspora in state (1920)



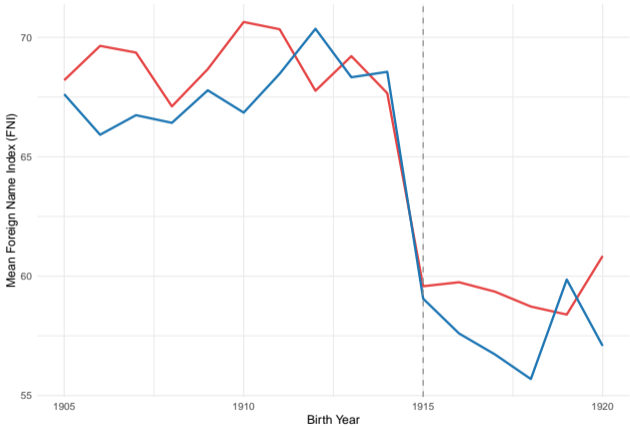
Arab Share in State (Residence) — Above Median — Below Median

Father's labour force status

Only 2.5% unemployed in 1920, 6.28% missing info, and 91% employed



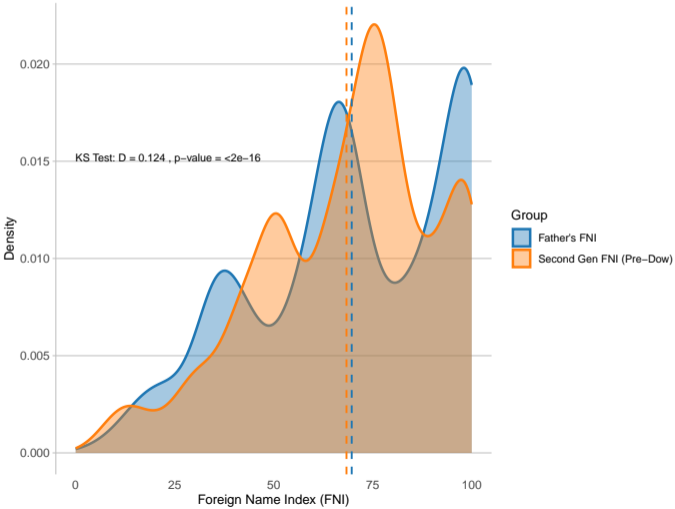
Share of the Arab diaspora in state of birth (1910)



Arab Share in State (1910) — Above Median — Below Median

◀ Back

Father's FNI distribution



Historical Arab-American Newspapers

- Scraped from the *Khayrallah Center for Lebanese Diaspora Studies* + manual collection
- Created by the Arab diaspora, printed in the US



Historical Arab-American Newspapers

- Scraped from the *Khayrallah Center for Lebanese Diaspora Studies* + manual collection
- Created by the Arab diaspora, printed in the US
- **16** newspapers, **6,930** editions, **54,774** pages (*ongoing collection*)
- OCR-processed, layout detected, articles extracted

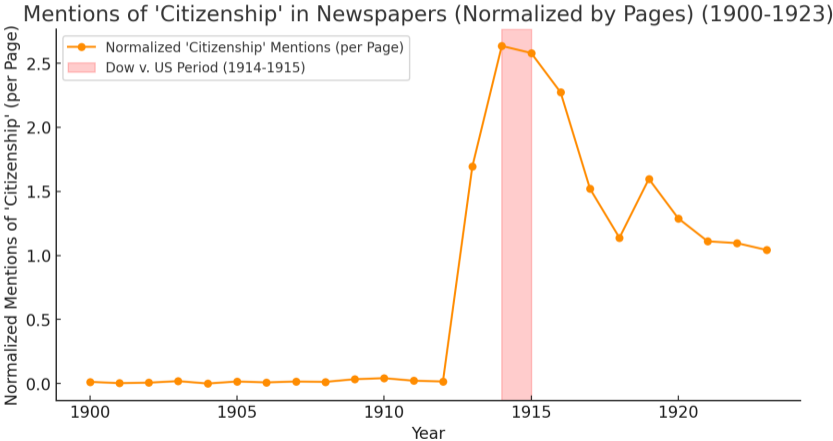


Historical Arab-American Newspapers

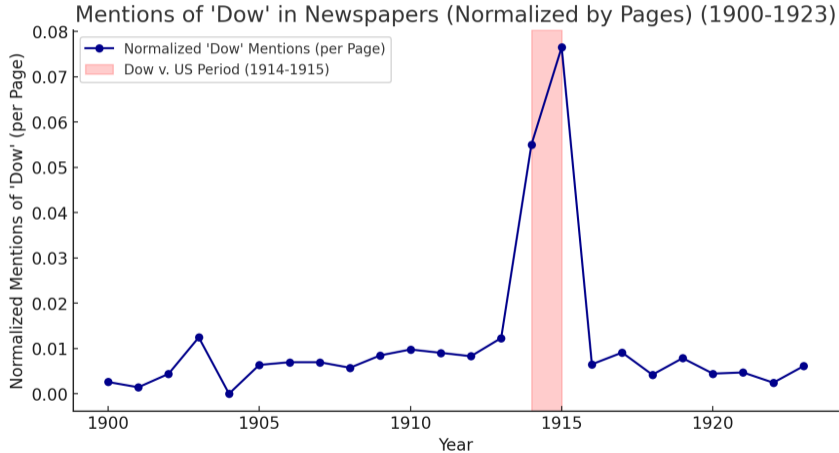
- Scraped from the *Khayrallah Center for Lebanese Diaspora Studies* + manual collection
- Created by the Arab diaspora, printed in the US
- **16** newspapers, **6,930** editions, **54,774** pages (*ongoing collection*)
- OCR-processed, layout detected, articles extracted
- **Next Steps:** Topic modeling, sentiment analysis, identity duality, assimilation + expand collection



Salience of the case 1/2



Salience of the case 2/2



Historical American Newspapers

- ▶ **American Stories** dataset (1780–1960)



◀ Back

Historical American Newspapers

- ▶ **American Stories** dataset (1780–1960)
- ▶ **20M** newspaper scans from Chronicling America (Library of Congress)
- ▶ **438M** structured articles: headlines, bylines, captions, dates, pages
- ▶ Coverage spans all **50 states**, with content concentrated pre-1920



◀ Back

Historical American Newspapers

- ▶ **American Stories** dataset (1780–1960)
- ▶ **20M** newspaper scans from *Chronicling America* (Library of Congress)
- ▶ **438M** structured articles: headlines, bylines, captions, dates, pages
- ▶ Coverage spans all **50 states**, with content concentrated pre-1920
- ▶ **Next Steps:** Text analysis of media sentiment toward Arabs & immigrants

◀ Back

