

Does Occupation Licensing Restrict Inter-State Migration?

Arvind Sharma (sharma.arvi@northeastern.edu)

Doctoral Candidate in Applied Economics, Northeastern University

1 INTRODUCTION

i. Motivation:

As much as **25% of the U.S. workforce needs a license to work in their occupation today**, up from under 5% in 1950s. In fact, Institute for Justice acknowledges that “occupational licensing is widely recognized as **one of the most important labor market** issues in the United States, and the topic warrants some more research”.

ii. Terminology: Difference b/w Certificates and Licenses:

According to Current Population Survey (CPS), certifications and licenses are credentials that demonstrate a level of skill or knowledge needed to perform a specific type of job. Both are time-limited credentials that need to be renewed periodically. However, **a certification does not convey a legal authority to work in an occupation, unlike a license** (which is issued by a government body directly). For example, a teaching certification awarded by LinkedIn (non-governmental certification body) versus a K-12 teaching license issued by state.

iii. Pros and Cons of Licensing:

The **benefits** of Occupational Licensing (OL) could include safeguarding public health and safety, better product quality control, protecting consumers by guaranteeing minimum educational requirements & industry oversight, and supporting career development & pathways for licensed workers. However, **costs** of OL could include reduced geographic mobility, increase rent seeking behavior, reducing employment in licensed occupations, reducing wages for unlicensed workers relative to their licensed counterparts, reducing market competition and innovation, and increasing the price of goods & services. Thus, the full impact of OL is hard to quantify, and could be net positive or negative.

iv. Literature Review:

OL studies have mostly looked at individual occupations and studied them in depth along one the following 4 distinct classes of outcome variables –
 (1) Impact on Quality, Health and Safety
 (2) Impact on Consumer Prices
 (3) Impact on Employment and Wages in Licensed Occupations
 (4) Impact on Geographic Mobility

I focus on the geographic mobility margin. First, **I do not restrict myself to any one single occupation** like prior studies which have mostly studied certain popular occupations like nurses and lawyers. Second, there has been **relatively little research** on the impact of state occupational licensing on interstate mobility of workers.

2 METHODOLOGY

v. **Data:** CPS (monthly) and its premier supplement, Annual Social and Economic Supplement (**ASEC**).

Merging of individual records across the two datasets is required because our outcome variable (migration status) exists only in ASEC, while our key variable of interest (self-reported occupational licensing status) can only be constructed from CPS.

Using “MARBASEID” identifier pre-constructed by IPUMS, I merge about 66% observations in CPS with ASEC, and generate our pooled cross section data from 2016 to 2020.

vi. Construction of Variable of Interest:

I utilize **3 newly added certification questions in CPS from 2015 onwards** to construct *active_govt_license* dummy for identifying if an individual in civilian working age population (16 to 65) requires a state-issued license to practice their occupation or not.

These questions were –

- (1) *Profcert*: Do you have a currently **active** professional certification or a state or industry license? Do not include business licenses, such as a liquor license or vending license.
- (2) *Statecert*: Were any of your certifications or licenses issued by the federal, **state**, or local government?
- (3) *Jobcert*: Earlier you told me you had a currently active professional certification or license. (Is/was) your certification or license **required for your (job/main job/job from which you are on layoff/job at which you last worked)?**

Note that *profcert* does not distinguish between certification and license but merely identifies if the non-degree credential is active or not. Second, *statecert* does not identify which level of government issues the certificate/license but we know that occupational licensing is “almost always state-based” (FTC 2018). Third, *jobcert* ensures that both individuals who are “legally required” (example medicine) and those “required by their employer” are identified. Thus, **if a person answered yes to all three certification questions, he/she is deemed to be working in a state-licensed occupation.**

vii. Specification: Ordinary Least Squares with Fixed Effects

$$\text{Migration}_i = \beta \text{Active_Govt_License}_i + \gamma \text{Controls}_i + \text{State}_i + \text{Occupation}_i + \text{Year}_i + \{\text{Occupation*State}\}_i + \{\text{Occupation*Year}\}_i + \{\text{State*Time}\}_i + \epsilon_i$$

Individual level controls include home ownership, age, gender, race, marital status, number of own children under 5 in household, and personal income.

Dependent variable indicates whether the respondent had changed residence in the past year or not.

3 RESULTS

viii. Null Hypothesis

State OL increases both monetary and non-monetary costs to meet new qualifications, such as education, experience, training, testing, etcetra if people want to continue working in their occupation across state borders.

Thus, if a person works in a state licensed occupations, they are unlikely to have migrated from another state (or abroad) over the last one year. However, state OL should not affect within state migration (between counties in same state, between houses in a county in a state, or not migrating at all/staying in the same house).

Table 4: Affect of Occupational Licensing on Migration, 2016-2019

	(1) b/w States	(2) b/w Nations	(3) b/w Counties, same State	(4) b/w Houses, same State	(5) Same House, same State
Govt. issued prof-cert/license required for job	-0.001* (0.001)	-0.001*** (0.000)	0.000 (0.001)	0.002 (0.002)	0.001 (0.002)
Regression	OLS	OLS	OLS	OLS	OLS
Controls	Yes 8	Yes 8	Yes 8	Yes 8	Yes 8
Time FE	Yes	Yes	Yes	Yes	Yes
State FE	Yes	Yes	Yes	Yes	Yes
Occupation FE	Yes	Yes	Yes	Yes	Yes
Occupation-Time FE	Yes	Yes	Yes	Yes	Yes
Occupation-State FE	Yes	Yes	Yes	Yes	Yes
State-Time FE	Yes	Yes	Yes	Yes	Yes
r2	0.106	0.082	0.094	0.125	0.164
N	263057.000	263057.000	263057.000	263057.000	263057.000

Dependent variable (migration) is a dummy.

Observations with missing occupation information dropped. Occupation categories from CPS.

* $p < .10$, ** $p < .05$, *** $p < .01$

ix. Interpretation:

Col (1): If a person works in a (state) licensed occupation, they are less likely to have resided in a different state, or changed residence in past year from one state to another state, by .1 percentage point. This is a statistically significant result at 10% level of significance. Since only about 2 percent people migrate move across states every year, state OL restricts in-state migration by about 5% within US on average, *ceptris paribus*.

Col (2): Similarly, if a person works in a (state) licensed occupation, they are less likely to have migrated from abroad over last year by .1 percentage point. Since only about .3 percent people migrate from abroad every year on average, state OL restricts US in-migration from abroad by about 33%. Again, statistically significant results that are large in magnitude.

4 RECOMMENDATIONS

x. Conclusion

I find that (state) OL reduces inter-state migration by about 5% within US, and US in-migration by 33%. Both are statistically significant results. OL does not seem to be restricting within state migration, as expected in our null hypothesis. Results are robust to alternative specifications, and a wide range of individual level controls, where homeownership and age seem to be the important too.

Licensing may have quality and safety benefits in product markets, but its costs are borne at least partially by labor market participants (unintended consequences in input markets).

5 ACKNOWLEDGEMENTS

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