Introduction
The use of credit information for employment screening has increased significantly over the last two decades (see Figure 1), and industry surveys indicate that such screening is used by 47 percent of employers. This screening tool has come under fire, though, by politicians and community groups that claim it unfairly penalizes minority and other vulnerable applicants. In response to these fears, a number of state governments have passed laws restricting the use of credit information by employers. The first of these laws was passed in Washington in 2007, and as of this writing, eleven states and three municipalities have such laws on the books. Thirty-one other states have considered similar laws.

Though state and local bans on the use of credit information have become increasingly popular, there is currently little research on their economic impact. In the paper this policy brief is based on, we use new Equifax data on employer credit checks, the Federal Reserve Bank of New York Consumer Credit Panel/Equifax data, and the LEHD Origin-Destination Employment data to show that these bans increased employment of residents in the lowest credit score areas. We find that the largest gains occurred in higher paying jobs and in the government-sector.

Using a large database of job postings from Burning Glass Technologies, we also show that employers increased their demands for other indicators of applicants’ job performance, like education and experience. This shift of employers’ focus to other performance indicators may explain why we find, on net, that the changes induced by these bans generate relatively worse outcomes for those with mid-to-low credit scores, for those under 22 years old, and for Blacks, groups commonly thought to benefit from such legislation. These results are of special interest to policy-makers whose labor markets may be negatively affected by these bans.

Data Description
The National Conference on State Legislature has been collecting data on state initiatives regarding credit checks in employment screening. We use this data, along with a number of other datasets, to estimate the employment impact of employee credit check bans. The other datasets are described below.

Equifax Employer Credit Checks
For an employer to obtain a credit file for a job applicant, they need to request such information from a credit bureau such as Equifax, one of the major credit bureaus in the United...
States. Equifax provided the total number of employer credit checks listed on credit files in the month of November by state of residence for 2009 through 2014. However, because each credit file may have credit inquiries by multiple employers, and because there are other credit bureaus besides Equifax that employers may check instead, we cannot study absolute changes in the number of employer checks. However, we can measure relative changes over time in the number of checks performed by this bureau.

Federal Reserve Bank of New York Consumer Credit Panel/Equifax (CCP)

The CCP provides detailed quarterly data on a panel of a random, nationally representative 5 percent of US consumers with credit files and members of their households from 1999 through the present. The data includes a credit report with detailed information on household debt such as mortgages, home equity lines of credit, credit card, and auto and student loans. The dataset can be used to calculate national and regional aggregate measures of individual- and household-level credit profiles at the Census block and tract level.

The LEHD Origin-Destination Employment Statistics (LODES)

The LODES data, which report employment counts at detailed geographies that can be matched to the CCP, are produced by the U.S. Census Bureau. The data covers employers in the private sector and state and local government, accounting for approximately 95 percent of wage and salary jobs. LODES are published as an annual cross-section from 2002 onwards, with each job having a workplace and residence dimension. These data are available for all states, save Massachusetts. Though the data defines a place of work by its physical or mailing address, for privacy reasons we are able to confidently locate this information geographically at the level of Census tracts.

Burning Glass Technologies Labor/Insight Data (BGT)

Burning Glass Technologies (BGT) is one of the leading vendors of online job ads data.
Their Labor/Insight analytical tool contains detailed information on the more than seven million current online job openings. It is updated daily from over 40,000 sources including job boards, newspapers, government agencies, and employer sites. BGT data includes employer name, location, job title, occupation, years of experience requested and level of education required or preferred by the employer, which allows for geographical analysis of occupation-level labor demand by education and experience levels. In total, we have access to data on over 74 million postings from 2007 through 2014.

Baseline Results
Impact of Legislation on Employer Credit Checks
We use the number of checks in ban and non-ban states over time to identify whether or not state bans impact the frequency of employer credit checks. First, we scale the total number of checks by (1) the number of unemployed residents and (2) the number of total hires. Then, we regress these dependent variables – which measure the intensity with which these checks are used – on state and year controls and an indicator that takes the value of “1” if there is a statewide ban. We find that state bans result in a statistically significant, roughly 7-11 percent reduction in the total number of checks.

Impact of Legislation on Employment Across Tracts
Next, we compare the change in employment for residents of low credit score census tracts in ban states relative to the changes of similar tracts in non-ban states. To do this, we use a statistical procedure called difference-in-differences. Difference-in-differences allows us to compare the outcomes (in this case, changes in employment) of a treatment group (tracts in ban states) and a control group (tracts in non-ban states) over time. This approach assures us we are controlling for any factors other than the ban that might affect employment.

We find that low credit score tracts experienced statistically significant 2.3 - 3.3 percent greater employment post-ban relative to low credit tracts in non-ban states.

To begin, we classify tracts as high or low credit score tracts in two ways. In our first approach, we calculate the average credit score for each tract and quarter in the Consumer Credit Panel, and we classify tracts as having low credit scores if the average credit score lay below 620 (the conventional subprime line) in any quarter. In our second approach, we calculate the fraction of the people with credit scores below the 620 threshold in each tract. We mark a tract as low credit if more than 38 percent of individuals in the tract have credit scores below that threshold. Using employment levels as the dependent variable, we estimate a regression that includes controls for each state, year, and employment trends unrelated to the ban, as well as an indicator that takes the value of “1” for low credit tracts. We find that low credit score tracts experienced a statistically significant 2.3-3.3 percent greater employment post-ban relative to low credit tracts in non-ban states.

Impact of Legislation on Employment Within Tracts
The LODES employment data is extremely rich and includes information about employment both by place of residence and by place of work. This origin-destination information makes it possible to identify the impact of credit bans within tracts for tracts whose commuting zones bridge ban and non-ban states. For these border areas, we can compare employment outcomes for low and high credit score tracts to destinations with and without a
ban. To perform this analysis, we add variables for the destination state of employment and place of residence to our baseline regression. We run regressions for the entire sample and for the sample of origin tracts located outside of states with credit bans, which shows cross border commuting. We find large increases in employment for low credit score tracts, relative to the tract as a whole and the general trend, in destinations with a credit ban. The baseline impact across these specifications is roughly 6-8 percent within state and a roughly 24 percent increase in cross-border commuting (though the base is obviously smaller). Again, this is evidence that the credit-bans are impacting the distribution of employment even within tracts.

**Our results indicate that employer credit checks primarily kept workers out of “better” jobs, rather than the lowest wage jobs.**

**Additional Results**

The employment data are rich, not just in their geographic detail, but also in that they break out employment by wage bins and industry shares. We run a number of regressions that make use of this additional information.

**Across Wage Bins**

We explore the impact on employment by LODES wage bin, and find no increase in employment among jobs paying less than $15K annually (in fact registering a slight decline). There is a 4 percentage gain in employment in jobs paying between $15 and $40K a year, and an even larger percentage increase of 11 percent in jobs paying more than $40K a year. These results indicate that employer credit checks primarily kept workers out of “better” jobs, rather than the lowest wage jobs.

**Across Industries**

Next, we explore the impact of these credit check bans by industry. This breakout presents an important robustness check for our results: the reliance on credit checks varies considerably across industries and some industries were exempted from these bans. It is also reasonable to expect that different industries will be more or less likely to comply with these new laws.

The pattern we find strongly confirms to the patterns implied by these facts. We find that by far and away the largest impact of the bans is on employment in the public sector – either directly by the government or indirectly in education, at 19 percent and 11 percent respectively. Both of these sectors rely heavily on credit checks, and both sectors are – obviously – expected to comply with these laws.

The second largest impact of the bans occurs in transportation and warehousing, an industry that provides access to secure goods, facilities, and sensitive client information. Industry publications indicate both that credit and background checks are widely used in this industry and that otherwise qualified employees are often rejected based on these checks. That industry is closely followed by “Other Services” (largely in-home personal aides), at 8 percent, and “Information” (e.g. cable installers), at 7 percent, both of which provide employees access to people’s homes. Finally, “Real Estate” and “Retail” are both at about 3 percent. These industries involve handling clients’ financial information or the establishments’ cash supply, respectively.

While our results show that employment increased generally in low credit score tracts, it actually decreased in lower wage industries like “Accommodations and Food Services” and “Construction” that do not intensely use credit checks. Perhaps even more compelling is the fact that employment in “Finance and Insurance”, “Professional Services”, and
“Management of Companies” is unaffected by these bans. These industries are generally exempted from the law banning credit checks, and correspondingly, employment in these industries does not change in low credit score tracts. Overall, these results align with our expectations given our baseline results, and increase our confidence in our findings.

Across Credit Scores
In the analyses above, we classified tracks as either high-credit or low-credit. Next, we examine the ban’s effect on employment after sorting tracts into bins based on average credit scores. Setting tracts with average scores about 670 as the benchmark, we track how employment evolved relative to this benchmark. We find employment gains for tracts with an average score below 620, with the greatest gains occurring for the lowest scoring tracts. We find the greatest employment losses occurring between 630 and 650. While not definitive, this is strong suggestive evidence that the credit check bans redistributed employment from workers with mid-to-low credit scores to those whose scores register as subprime or below. In the next section, we explore data that illustrates how this redistribution was effected.

Shifts to Other Signals
To study changes in employer demands for other applicant quality indicators following a credit ban, we turn to a new data set on online vacancies that includes 74 million job postings from 2007 through 2013. The smallest geography recorded for each posting is the city level. We once again classify cities as low-score or high-score using a binary approach, creating a dummy that equals “1” if the average credit score profile falls below a cutoff of 620. We then run regressions with the share of jobs requiring a college degree and the average years of experience required as our dependent variables. Our regressions show that cities with lower credit scores experienced a greater increase in the share of jobs requiring these skills in states with a ban. The results indicate a roughly 5 percentage point increase in the share of jobs explicitly mentioning a college degree, relative to the rest of the state in that year, and an additional 3 month of experience on average (Table 1).

Vulnerable Populations
How does this shift from credit checks to increased demand for education and experience

| Table 1: Signal Substitution - Shift from Credit Checks to Other Applicant Quality Indicators |
|-----------------------------------------------|-----------------------------------------------|
|                                             | (1) Percent Increase in Share of Jobs that  |
|                                             | Require a BA                                |
|                                             | (2) Percent Increase in Experience Required |
| Indicator for Low-Credit Score               | 0.0513***                                   |
| Area in a Credit-Ban State                  | (0.0177)                                    |
| Observations                                | 27,121                                       |
| R-Squared                                   | 0.802                                        |
|Observations                                 | 27,139                                       |
| R-Squared                                   | 0.807                                        |

Notes: ***p<0.01, **p<0.05
Both regressions include variables that control for differences between cities, states, and years. To calculate the requirement of an “additional 3 month of experience on average” as stated in the text, the .25 coefficient in regression (2) is multiplied by 12 months, as the job descriptions almost always count required experience in years.
affect labor market outcomes for minority and other vulnerable groups? Put simply, do these bans (relatively) help or hurt the people they were supposed to target? To answer this question, we turn to data from the American Community Survey. As before, we use a difference-in-differences strategy, comparing outcomes for different groups in ban and non-ban states before and after their enactment. The groups we focus on are Blacks and people below the age of 22, as both groups are the purported beneficiaries of these laws.

We find that unemployment rates were roughly 1 percent higher post-ban for Blacks than other groups in the same state-year. People under 22 saw an increase of roughly half this size, though this result is not robust after more controls are added to the regression. The interpretation of this result seems to be that, relative to other groups, these bans contribute to worsening labor market outcomes for Blacks and young people. Thus, it appears that the prohibition of credit screening and

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Conclusion

In this paper, we’ve shown that bans on credit checks in employment are associated with fewer employer credit checks and employment gains in low-credit score areas. These gains happen in mid-to high-wage jobs, with the biggest effect on public sector employment. These gains seem to happen alongside losses in tracts with slightly higher credit scores, and relative reductions in employment and income for Blacks. One explanation for this finding is that firms use other indicators of worker quality, like education and experience, which we also document using new data on job postings.

Overall these are intriguing results that should be useful for academics and for the actively ongoing policy debate regarding these bans.

This paper is of special import to policy-makers in New England. Connecticut and Vermont were among the first states to institute a ban on credit checks, and Rhode Island, Massachusetts, New Hampshire, and Maine have considered or are considering similar legislation. New England senators Elizabeth Warren (MA), Richard Blumenthal (CT), Patrick Leahy (VT), Edward Markey (MA), Jeanne Shaheen (NH), and Sheldon Whitehouse (RI) accounted for six out of the seven sponsors on recent legislation to extend this ban nationwide. Moreover, many of New England’s metropolitan labor markets have disproportionately more young people whose labor market outcomes are potentially affected by these bans. Continued quality research on the impact of these bans can meaningfully guide the ongoing policy discussions in this region.