The Impact of Employer Education Assistance on Enrollment

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Abstract

Policymakers incentivized university enrollment through the creation of Section 127 of the United States Internal Revenue Code. This policy provides a tax deduction to employers that provide financial assistance for employee education. This paper finds that before and after extensive correction, the policy fails to increase enrollment meaningfully. Evidence from 1992 through 2017 indicates adverse linear and total effects of interest. H-1B policy is explored as a correction variable and emerges as a comparatively preferred policy tool. Results are validated using vector autoregression (VAR), dynamic ordinary least squares (DOLS), and instrumental variable (IV) analysis.

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2010 MSC: H4, I22, J32, J38

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1. Introduction

The passage of Public Law 95-600 in 1978 created Section 127[1]. Section 127 provides for a limited employer tax deduction for the transfer of money to an employee for educational purposes. This paper tests the hypothesis that the effect of Section 127 employer assistance on total university enrollment is positive. Results show that employer assistance has a positive marginal effect on enrollment and negative linear and total effects. Evidence indicates that the H-1B visa policy is a comparatively effective policy instrument for enrollment, national student loan debt, and the price of education.

Total enrollment is one of a few policy concerns related to Section 127. The paper concludes by asking whether the results observed represent policy success. In summary, how do Section 127 results over time relate to its policy goals? This paper finds that Section 127 has achieved partial success, but several changes are advisable.

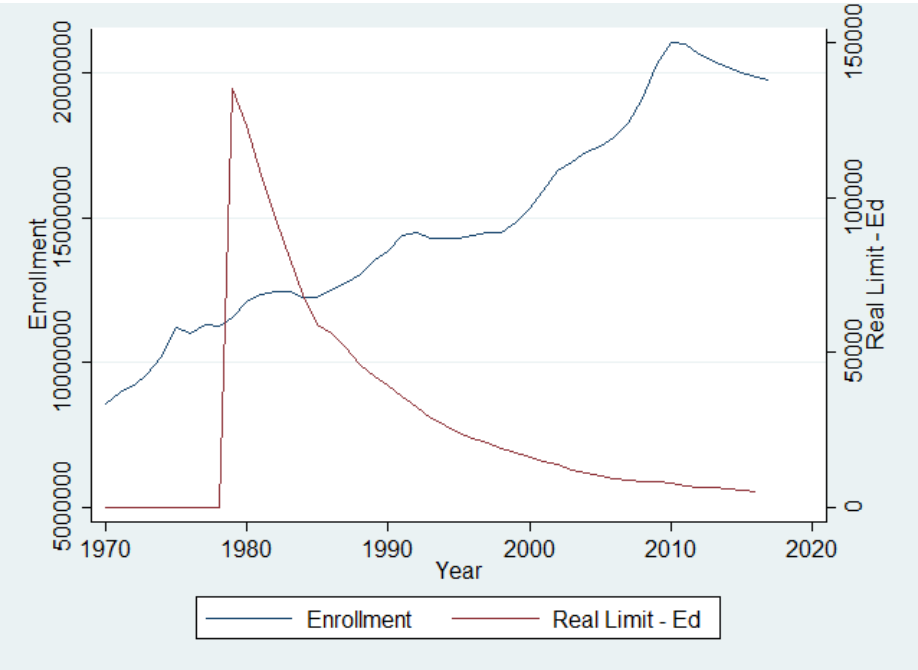
Figure 1 illustrates university enrollment over time and the real maximum deductible amount for Section 127 educational assistance. This paper hypothesizes that the apparent inverse relation is a superficial result of variable omission. Analysis in this paper controls extensively for dynamic policy and economic variation. The use of multiple specifications ensures the robustness of findings. In one specification, vector autoregression (VAR) provides evidence on utility as a policy instrument.

2. Methodology

This paper broadly explores Section 127 effects in comparison to its policy goals. The focus of this broad conversation is the identification of the policy effect on total enrollment. Identification is robust across multiple specifications. This paper operationalizes total enrollment as a representation of one of the original Section 127 policy goals.

The Society for Human Resource Management (SHRM) [2] identifies three original policy goals for the passage of Section 127. The third policy goal is

Figure 1: Enrollment and Real Assistance Over Time



to incentivize upward mobility by providing funds for higher education. As a result, this paper takes total enrollment as the dependent variable.

Specifications begin with an ordinary least squares (OLS) investigation. Finding significant time effects justifies and motivates further analysis. Dynamic ordinary least squares (DOLS) analysis replicates the importance of time effects and also addresses concerns on potential autocorrelation. Finally, a vector autoregression indicates that specific policy changes are candidate policy instruments.

3. Empirical Model

This paper takes multiple steps to ensure robustness and analytical completeness. The final results are consistent across three empirical specifications. In addition to the variable of interest, this paper tests two other left-hand vari-

ables. Testing these two secondary dependent variables of interest improves confidence in the theoretical and applied soundness of the conclusion.

Total postsecondary enrollment in the United States is the dependent variable. The Section 127 policy effect is the right-hand parameter of interest in the first two specifications. Equation 1 is the first specification of interest. This model is an OLS model. Here, α is a $1 * k$ vector of coefficients, and V is a $k * 1$ vector of annually observed independent variables.

$$Y_t = \alpha V_t + u_t \tag{1}$$

Policy variables exist for federal lending policy, veteran education benefits, and H-1 Visa policy. Two additional non-policy variables include time, in years, and the real price of university tuition plus mandatory fees.

Equation 2a describes the next specification. This model follows Anderson and Hsiao[3]. This specification investigates concerns about possible autocorrelation. It is both an instrumental variable model and also a dynamic ordinary least squares (DOLS) model.

$$\Delta Y_t = \beta W_t + B z_t + e_t \tag{2a}$$

$$z_t = \delta W_t + D Y_{t-2} + g_t \tag{2b}$$

Here, β is a $1 * l$ vector of coefficients, and W is an $l * 1$ vector of annually observed independent variables. z is the instrument, and it is a projection of lagged enrollment derived from twice-lagged enrollment. Equation 2b explicitly derives z.

The third specification is a vector autoregression (VAR). Six regressions follow this general form, which is described in Equation 3c. The first model of this form is a two-variable case. This first model is similar to earlier non-VAR specifications because it identifies the effect of employer assistance on enrollment. A second model follows the same form, but the independent variable

is the H-1B policy.

$$v_t = \alpha_0 + \alpha_1 v_{t-1} + \alpha_2 v_{t-2} + ... + \alpha_i v_{t-i} + u_t \tag{3a}$$

$$V_t = \alpha_0 + \alpha_1 v_{1,t-1} + \alpha_2 v_{2,t-1} + ... + \alpha_{ik-1} v_{k-1,t-i} + \alpha_{ik} v_{k,t-i} + u_t \tag{3b}$$

$$Y_t = \sigma_k V_{kt} + e_t \tag{3c}$$

Equation 3a is a univariate autoregression. Dependent and independent variables are uniformly represented by v_t. An OLS model of i lags explains the current-period value of the variable in the univariate regression. Equation 3b extends this operation to k variables. Notice that V_t is not a collection of univariate v_t. Instead, it is a $k * k$ vector, a constant, and an error term.

Equation 3c obtains V_t as specified in Equation 3a for all variables in k, then fits an ordinary least squares model across $V_k t$ to explain the current-period dependent variable, Y_t. Section 127 effects turn out to be insignificant in the specification described by Equation 3c, but H-1B effects are significant. As a result, all four remaining VAR equations use H-1B issuance as the independent variable.

Two of the four remaining models are three-variable cases. These two models extend Equation 3c by adding a second stage response. In the first case, the second-order response is federal student loan debt. In the second case, the second-order response is the price of higher education. David Schenk suggests Cholesky decomposition as a method of generating an ordered impulse-response function from a VAR[4]. Equations 4a and 4b describe Cholesky identification.

$$e_t = Bu_t \tag{4a}$$

$$\Sigma = E(e_t e_t') = E(Bu_t u_t' B') = BE(u_t u_t')B' = BB' \tag{4b}$$

The left-hand error term in Equation 4a, e_t, is the same as in Equation 3c. The right-hand of Equation 4a defines B, which is the coefficient matrix for u_t. Structural, or uncorrelated, errors are defined as u_t. Endogenous error in B allows us to estimate the effects of arbitrary innovation in some variable in V_k.

The reduced form BB' in Equation 4b matches many matrices. There does exist a unique lower-triangle matrix that satisfies the equality statement with Σ, the covariance matrix of the errors. Selecting the lower-triangle represents analyst stipulation of the order of effects. The order imposed is called a Cholesky ordering. This paper selects theoretically-grounded Cholesky orderings.

The last two models in the six-model VAR family are also simple two-factor VAR models. These models test the hypothesis that enrollment effects are extraneous to the effects of H-1B policy on student loans and the price of higher education. The form of these models follows the specification in Equation 3c, but the independent and response variables are different. H-1B issuance is the independent variable. The response variable is federal student loan debt in one case. The price of higher education is the response variable in the other case.

4. Description of Data

Models in this paper use a subset of nine high-level variables. Enrollment figures for all degree-granting postsecondary institutions in the United States are provided by the National Center for Education Statistics (NCES)[5]. Enrollment figures are for the fall semester of the school year.

For the same group of institutions, NCES elsewhere provides data about average tuition and required fees[6]. This study uses price information for full-time undergraduate students. Prices do not include the cost of room and board. Cost information exists through the year 2016 Cost information reflects real prices. 2016 is the base year for the Consumer Price Index (CPI) adjustment.

Section 127 took effect on January 1, 1979, with a nominal assistance limit of 5,000 dollars[1]. In October 1986, Pub. L. 99–514 increased the nominal assistance limit to 5,250 dollars[7]. NCES price data allows the calculation of

education-specific inflation. That measure of inflation corrects nominal assistance to produce the real employer assistance limit. The real employer assistance limit is the primary explanatory variable of interest in this study.

Section 127 was renewed several times over the years. A dummy variable exists for a considerable change realized in 2013. In that year, the employer assistance deduction became permanent. Personal Consumption Expenditures (PCE) data is a measure of inflation provided by the U.S. Bureau of Economic Analysis (BEA)[8]. PCE is the fourth independent variable.

Stafford loan data is another critical high-level component of the analysis. Stafford loan limits impact the supply of loanable funds, which indirectly modifies demand for education. Stafford data also broadly proxies non-military federal student aid policy. Stafford loans technically decompose into two lower-level factors. The first is the nominal loan limit for undergraduates. The second variable is a dummy variable. The dummy variable indicates whether the undergraduate loan limit is the combined limit for undergraduate and graduate loans. A policy change in 1993 grouped these limits. FinAid provides the Stafford loan data used in this study[9].

Visa policy is the sixth high-level variable. The number of H-1B visas issued each year is an essential variable in this study. The Immigration Act of 1990 decomposed the existing H-1 visa into distinct H-1A and H-1B categories. Later legislation established the H-1B1, H-1C, and many other visa classifications, but these are mostly inapplicable to the present research. The H-1B visa is most relevant for this study because it relates explicitly to the undergraduate degree. The Immigration Act of 1990 makes available the H-1B classification for specialized workers, or workers in a specialty occupation. That legislation formally defines a specialty occupation as "an occupation that requires...attainment of a bachelor's or higher degree..." The period of analysis for this study is constrained to begin with the advent of H-1B data in 1990. As earlier mentioned, tuition data constraints the end of the analysis to 2016.

H-1 visas are a subgroup of nonimmigrant visas. The Bureau of Consular Affairs provides nonimmigrant visa award data by classification from 1987 to

2019[10]. This paper exclusively uses the most relevant H-1B visa award numbers, but reanalysis with other visa classifications could yield statistically significant findings. The prior H-1 visa was also a merit worker visa, but it had no formal definition of merit. It is plausible that the college-educated effect informally existed before the 1990 legislation. One might also find small but significant effects by looking into visas outside the H-1 family. Besides the number of actual visa awards, an analyst could look for visa cap effects or visa policy state effects. For example, the Pew Research Center notes that the American Competitiveness in the 21st Century Act of 2000 exempts certain entities from the H-1B cap[11].

Actual federal loans stand in contrast to loan limits, which are represented by the Stafford loan limit variable. Loan limits are a policy choice, but after correcting for loan limits, the actual amount of loans made primarily represents a demand effect. As such, we would not want to correct for actual loans. That would wipe out the effect of interest, which is the demand effect attributable to various policies, and Section 127 employer educational assistance in particular.

Loan data generates results as a left-hand variable of secondary interest, rather than as an independent variable. The variable I use in this regard is total federal undergraduate loans. College Board provides loan data. College Board also gives the additional context in a report which is related to the loan data[12]. The additional context suggests that an analysis that decomposes federal loans by type could yield preferred statistical results[13].

The final subset of data describes veteran education benefits. Each year in the data set is associated with some veteran education policy. The measure of veteran policy is a categorical variable that decomposes into seven dummy variables. A series of seven dummy variables capture veteran education policy effects. The seven variables cover the period from 1944 to 2021. The Servicemen's Readjustment Act of 1944 is also called the G.I. Bill. The original bill expired in 1956[14]. The period from 1944 to 1956 is positively associated with the first dummy variable.

The Veterans Educational Assistance Program (VEAP) passed in 1981[15].

The third period of interest ends in 1984 with the enactment of the Montgomery GI Bill[16]. The fourth period of interest ends in 2009 with the Post-9/11 GI Bill. Finally, many benefits from the Forever GI Bill became effective in 2018, with additional provisions taking effect in 2020 and 2022[17].

Because of time sample constraints on other variables, there is only a single variation in veteran education benefits during the period of analysis. The variation is the enactment of the Post-9/11 GI Bill in 2009.

Recent changes in veteran education benefits and Section 127 represent critical caveats for any attempt at forecasting outside of the period of study. The Forever GI Bill makes noteworthy changes in veteran benefits in the years to come. The CARES Act amends Section 127 to temporarily provide a new benefit[18]. The new benefit is that employers may assist employees in paying down existing student loan debt, rather than only paying for new expenses, in a tax-deductible way. Under current law, the CARES Act changes to employer assistance will apply only during the year 2020.

5. Results

5.1. Multiple Regression Results

The prior description of data notes seven independent variables and two dependent variables. Multiple regression analysis begins with OLS regression of all seven independent variables, plus time, on enrollment.

Model 1 in Table 1 describes the results for the initial multiple regression. The selected variables in this table are significant in at least two specifications. Section 127, inflation, and time effects were the most important variables in Model 1 ($p < 0.0005$). Linear and nonlinear employer assistance effects were significant. A dummy variable that represents whether the employer deduction is temporary or permanent is also significant.

Linear and nonlinear visa policy effects were also highly significant ($0.001 < p < 0.05$). Tuition and the interaction between Section 127 and visa policy were notably insignificant. Veteran education benefits and Stafford variables were

Table 1: Table of Multiple Regression on Enrollment, Selected Variables

	1	2	3	4
H-1B^2	9.924e-04	1.618e-04+	1.184e-03	2.518e-05+
	(2.357e-03)	(8.175e-05)	(7.354e-04)	(1.303e-05)
PCE^2	4.438e-01	-1.235e-01**	-2.058e-02	-6.054e-02*
	(9.256e-01)	(2.000e-02)	(7.352e-01)	(2.128e-02)
Real Assistance^2	-2.391e-01	9.833e-03*	1.437e-02	1.822e-05
	(3.010e-01)	(3.034e-03)	(4.319e-02)	(1.149e-05)
Section 127 is Temporary	1.193e+06++	1.347e+06**	-6.446e+04	
	(4.728e+05)	(3.003e+05)	(3.612e+05)	
Year	1.504e+06*	1.239e+06**	-5.346e+05+	
	(3.157e+05)	(1.488e+05)	(1.937e+05)	
R-sqr	0.9991	0.9943	0.9907	0.5618
N	27	27	27	44

Standard errors in parentheses

+$p < 0.10$, ++$p < 0.05$, *$p < .01$, **$p < .001$

also insignificant. Model 2 is obtained by removing insignificant variables from Model 1. The importance of time in this analysis motivates further analysis using specifications that are explicitly dynamic.

5.2. Dynamic Ordinary Least Squares Results

Models 3 and 4 from Table 1 are dynamic ordinary least squares (DOLS) models. These models are specially created to address concerns about potential autocorrelation using an Anderson-Hsiao adjustment[3]. DOLS models also benefit marginal analysis by decomposing within-period and between-period marginal effects. Model 3 is generated by applying an Anderson-Hsiao adjustment to Model 2. In addition, first and second lags and differences were checked for each significant variable in Model 2. Model 4 is the result of trimming insignificant variables from Model 3.

The Anderson-Hsiao adjustment involves three changes that allow an analyst to address actual or potential autocorrelation in the dependent variable. The first step is to replace the dependent variable with its first difference. The second change is a refinement in the specification. Models 3 and 4 are a unique case of DOLS multiple regression because they are also instrumental variable models. The third step in the Anderson-Hsiao adjustment is to pick a particular instrumental variable. This particular instrument is often called the Anderson-Hsiao estimator. The Anderson-Hsiao estimator is the twice lagged first difference of the dependent variable.

When insignificant factors are eliminated from DOLS analysis, a broader set of samples is applicable from 1973 through 2016 (n = 44). This makes Model 4 an out-of-sample test for prior specifications. PCE and H-1B marginal effects were robust to specification. Employer assistance was non-robust and insignificant DOLS analysis.

Modifying Model 4 to include linear and marginal employer effects results in insignificant positive and negative coefficients, respectively. These signs are consistent with the assertion that Section 127 is an enrollment incentive. The insignificance of these effects is consistent with access issues. The marginal effect

does not dominate for any period across the period of interest, so the total effect is also positive. The maximum single-period effect of assistance is obtained in the first year of the policy. The point estimate of the maximum effect is an increase of about 316040 students to enrollment[1].

The additional years included in Model 4 make another variable relevant. Some years in the period of analysis for Model 4 are prior to the existence of Section 127. Adding a dummy variable for the existence of any employer assistance at all identifies an insignificant ($p < 0.21$) but positive association with enrollment.

The Anderson-Hsiao estimator was not significant. This provides evidence against autocorrelation. Time was significant in all models, but not in the same way. Nonlinear time effects were significant in Model 4, but not in prior models. Linear time effects were insignificant in Model 4. Some lags and differences were significant in Model 4, but DOLS analysis generally leaves room for improvement regarding confident claims about factor behavior over time.

5.3. Vector Autoregression Results

Vector autoregression (VAR) improves on DOLS specifically for the purposes of identifying policy instruments and effects over many periods. The difference and lag effects of the first and second orders were arbitrarily selected during DOLS analysis. In contrast, VAR lag selection techniques involve non-arbitrary selection criteria.

Employer assistance was not significant in the preferred DOLS model, but ruling out significance in a VAR specification adds confidence to policy conclusions. Visa policy is investigated as a potential policy instrument due to robust effects in the earlier analysis. Prior analysis ruled out the significance of an

[1]From 1978 to 1979, the change in the maximum tax-deductible employer assistance amount increased from 0 to $13,5149.38$ dollars in real terms. Real terms reflect constant 2016 dollars. The linear coefficient is 6.39292 ($p > 0.3$). The quadratic coefficient, indicating marginal effects, is -0.00003 ($p > 0.5$). $135149.3845 * 6.39292 - 0.00003 * 135149.3845^2 = 316038.52$.

interaction variable between visa and employer assistance effects. As a result, the two initial VAR models are both simple, two-variable models.

For the employer assistance model, an extended sample of 43 observations over the period from 1974 to 2016 is used. For the H-1B model, 24 samples over the period from 1994 to 2017 are used. Ivanov and Kilian find that the Schwarz Information Criterion, also called Schwarz's Bayesian information criteria (SBIC), is the most accurate selection criterion for sample sizes less than 120[19].

Because this analysis uses fewer than 120 samples, the selection is determined by SBIC. In addition to SBIC, unanimous agreement on lag selection for both models is achieved using the likelihood ratio (LR), the final prediction error (FPE), Akaike Information Criterion (AIC), and Hannan-Quinn Information Criterion (HQIC). For both models, the optimal lag length is identified at two periods. The p-value for the optimal lag was less than 0.001 for both models.

VAR results for employer assistance are directionally consistent with prior analysis. A positive shock to employer assistance is associated with a downward parabola curve response. The response, however, is not significant for any period, even when using a 60 percent confidence interval.

VAR results for an H-1B policy impulse are significant. A positive shock to H-1B issuance is also associated with a downward parabolic response. The H-1B policy effect is insignificant for the first two periods, but it reaches a significant positive effect in the third period. The positive effect plateaus in the seventh period, then it reverses and reaches permanent insignificance in the eleventh period.

Increased enrollment reflects an increase in demand which is associated with increased tuition and debt both theoretically and in the present data[2]. From

[2]A simple regression of total enrollment on total federal loans yields a positive coefficient with a p-value less than 0.001 and an adjusted r-squared of 0.973. A simple regression of total enrollment on CPI-adjusted real tuition yields a positive coefficient with a p-value less than 0.001 and an adjusted r-squared of 0.915.

a policy perspective, increasing enrollment may not be desirable. Higher education has a great return from an individual perspective, but there are several concerns from a social perspective. Examples include concerns about grade inflation, credential inflation, experience inflation, and the social return to education spending abound. For example, Forbes magazine recently pointed out that the price of college is increasing almost eight times faster than wages[20]. Edvisors notes that the average tuition inflation rate is double the average CPI-U[21]. Many in the media consider the size of federal student loan debt to be a crisis. Because H-1B policy is an enrollment instrument, and enrollment is directly related to loans and real tuition, further analysis investigates a downstream effect of H-1B policy on loans or real tuition.

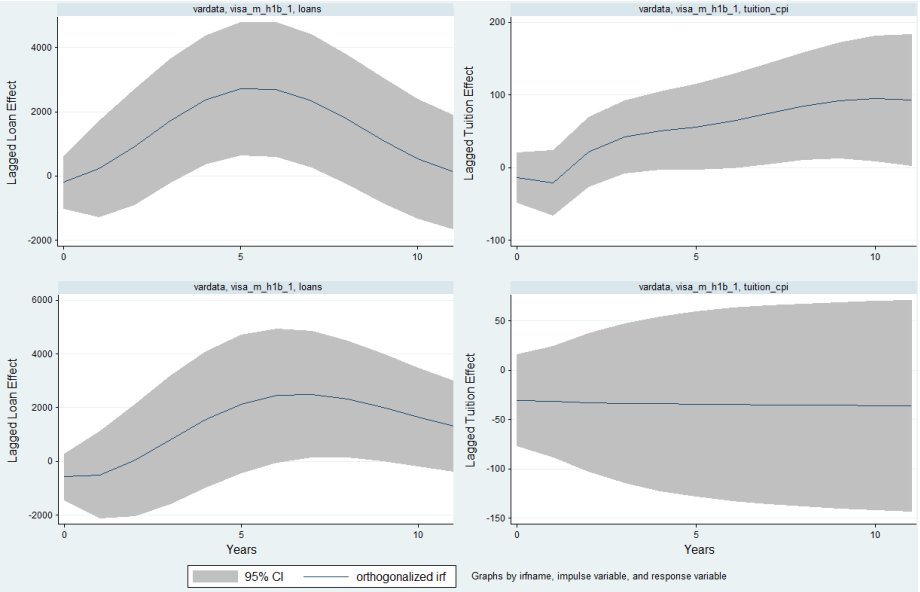
A short regression of total loans, CPI-adjusted tuition, and an interaction variable on total enrollment identifies a positive but insignificant (p ¡ 0.2) interaction between tuition and loans. A more sophisticated analysis might prove that the interaction does exist, but even supposing significance, the correct Cholesky ordering is non-obvious. Based on this information, further analysis scopes loans and tuition to separate models.

Figure 2 is a graphical representation of the VAR model results. The top row contains three-variable models of interest. In these models, an H-1B impulse generates a first-order enrollment response. The bottom row contains two-variable specifications that omit the intermediary enrollment response. On the left are the loan models, and on the right are the tuition models.

The figure makes the three-variable model preference clear for tuition, but some model statistics make the case stronger with respect to the loan models. In the two-variable loan VAR, the r-squared for the visa variable is less than 0.89, and the r-squared for the loan variable is less than 0.988. In the three-variable specification, the r-squared for the visa variable exceeds 0.913. The r-squared for the loan variable exceeds 0.989. This confirms that the enrollment effect is model-improving rather than extraneous complexity.

Both three-variable models achieve significance at the 0.05 level. SBIC indicates two lag optimization for these models. The loan model has a sample size

Figure 2: H-1B VAR Results



of 25 over the years from 1993 to 2017. The CPI-adjusted tuition model has a sample size of 25 over the years from 1992 to 2016.

The loan model anticipates a temporary increase in total loans, followed by an eventual return to zero. The tuition model allows for the same, but it also indicates the potential establishment of a new normal of high real tuition prices. It does not seem to be the case that a real-world shock would result in one or the other effect. Instead, a real-world H-1B shock would be expected to cause both effects. The interaction between loans and higher tuition effects is weak, as previously noted, but it is positively signed. These models understate the effects of interest if some positive interaction does obtain.

In summary, vector autoregression provides evidence on H-1B visa issuance as a policy instrument. H-1B policy stimulus impacts enrollment and has further indirect effects on aggregate student loans and the real price of tuition. The dynamic response of enrollment and other dependent variables to employer assistance impulse is insignificant.

6. Conclusion

Employer assistance effects are in the direction of the central hypothesis, but the effects are statistically insignificant and non-robust. The present study interprets insignificance mainly as an access issue. Access and other policy objectives are better achieved by making two adjustments to Section 127. The first change is to remove the employment requirement. The second change is to remove the restriction to accredited education.

According to SHRM[2], the third policy goal motivating passage of Section 127 was to incentivize upward mobility by providing funds for higher education. In the same report, SHRM notes that Section 127 benefits are increasingly being used to pursue graduate degrees. Upward mobility goals were intended to target lower-paid and lower-skilled workers. Graduate student utilization should indicate policy failure in this regard. To improve benefit uptake among the least skilled and least paid, the employed are not the correct target group.

In a 2013 report, SHRM finds about 61 percent of employers offer tuition assistance[22]. Lumina Foundation finds that two to five percent of eligible employees use tuition assistance benefits, and 43 percent of employees do not know whether their employer offers such a program[23]. These access issues are in addition to the fact that at least a third of the population is usually non-participatory in the labor force. Removal of the employment requirement would plausibly increase utilization four-fold[3].

According to SHRM, Section 127 was passed with two other policy goals.

[3] A utilization multiple of 4.07 results from the calculation $(1*0.035*0.715*1)/(0.61*0.035*0.43*0.67)$. Suppose a positive awareness effect of unknown magnitude. The point estimate on a uniform distribution from 0.43 and 1 would be the average at 0.715. This calculation assumes a constant 3.5 percent utilization among the newly eligible population, but actual utilization is plausibly higher. SHRM finds that the average recipient of employer educational assistance is employed, but earns below average. Extrapolating the inverse correlation of income and utilization to the unemployed would result in higher utilization among the newly eligible population. In addition, improving benefit awareness is facilitated when the benefit does not vary by employer.

The first was to reduce administrative inequity and uncertainty. The second was to reduce complexity in the tax code. Removal of the employer requirement furthers achievement towards these goals.

The second recommended change is to allow for the deduction of unaccredited education costs. This change would incentivize positive employment outcomes and combat student loan debt. Many employers have ceased requiring the degree in recent years. Removing the requirement that funds go toward college would reduce upward price pressure on college. Employers prefer alternative credentials for specific roles. A relatively diverse labor pool utilizes these credentials. Often, these credentials are also more affordable than traditional education.

The deduction of unaccredited education also solves an existing determination problem. Prior learning assessments allows an individual to receive college credit for prior work or unaccredited learning. Educational tax benefits do not apply retroactively in many cases. As a result, there is an unintended inability to deduct expenses incurred in the course of quality learning.

Finally, this study finds H-1B policy is a potentially effective policy tool for postsecondary enrollment. Further research to clarify the mechanism by which H-1B policy influences enrollment is encouraged. Competitive effects are one possible explanation. An increase to the count of H-1B visas issued within-period and between periods is associated with increases in enrollment, total loans, and the price of education. H-1B policy modification in any direction is not obviously beneficial based on these criteria alone.

Legal immigration has several additional benefits that exceed the scope of this study. The literature generally suggests that an increase in H-1B immigration would benefit the economy[27]. There are substantial distributional effects, but the net distributional effect appears to be desirable. The main effects of increased H-1B labor involve a transfer of wealth from native computer scientists to other people, and other people exhibit significantly higher need on average.

One hypothesis in this paper was that there might be some interaction between H-1B policy and Section 127 assistance. H-1B policy specifies a college-

level education as a qualifier for specialized labor. Theoretically, this could incentivize higher college participation by natives due to competitive effects. This study observes no evidence on this kind of effect, but the removal of the college-level qualifier may still prove beneficial. Such a move would open the door to a broader pool of talented foreign labor.

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