IMMIGRATION CONTROL – SUPPLY CHAIN CRISIS?

Introduction: The following discussion of the President's immigration policies was prepared for J.B. Hunt by Noël Perry of Transport Futures. It covers those programs announced by the Trump Administration as of October 10, 2025. Note that it is far too early to understand either the details of the programs or how effectively the policies will be enforced. This analysis is limited to quantifying the targeted population: the 2025 drivers at risk of disqualification. That first cut analysis, however, allows us to identify the possible effects of those policies on American supply chains. It is always preferable to speculate about the future when in possession of quantitative analysis. Note, however, that the tendency of undocumented workers to hide from notice makes any measurement of their numbers uncertain.

Immigration control is important for trucking: This inescapable conclusion comes from an important fact: As with many U.S. industries, immigrants play an important part in trucking. Immigrants, legal and illegal, make up 20% of the U.S. population. Their share of difficult work is undoubtedly higher, ranging from 25% to 40%, depending on the sector. We use a conservative estimate of 25% for immigrants in trucking in this analysis, reasoning that the difficulties of trucking work attract immigrants, similar to those in construction and agriculture.[1] The same proportions apply to the estimate of undocumented workers. In the whole economy, they account for 4% of jobs but accomplish 7-13% of the tougher work. We use 8% for our estimate of undocumented workers in trucking, again using a number on the conservative side of the difficult work range. Importantly, the Administration's program also intends to remove a significant share of currently documented drivers, as explained in the analysis below. *If it is successful in all its immigration-related programs, it would reduce the driver population by almost 16%, or 614,000 drivers.* Note that preferred immigrants would still make up 12% in the driver workforce, 472,000 drivers.[2] One concludes that understanding the status of immigrant drivers (and other trucking workers) is a critical task for our industry. Since the 'other' trucking workers outnumber the drivers, the problem is much bigger than documented here. However, the immigrant percentage among those workers is lower, but probably like the 20% quoted above for overall U.S. employment.

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[1] As with most measurements of the trucking market, estimates of immigrant activity are subject to significant uncertainty. We use here a collection of conservative figures, reasoning that are calculations indicate the low side of the issue with larger effects likely.

[2] The calculations in this paper use the FMCSA estimate of 3.9 million heavy truck drivers based on their granting of operating authority. The FMCSA estimate is much larger than some other numbers in immigration analysis because it covers the entire trucking market, not just the over-the-road for-hire segment of roughly 2.5 million drivers. That segment of the market is the subject of most trucking analysis. It misses, however, almost half the market.

Immigration control is important for supply chains: Trucking touches over 90% of the shipments in American supply chains. If something changes in trucking, shippers and their consumer customers know it, especially if those changes result in missed shipments. In the chaos following the COVID-19 shutdowns, supply chain management suddenly became the ruling issue for American managers, with prices 22-34% above normal. The analysis below shows that the aggressive pursuit of the Administration's policies could create a crisis approaching that magnitude. This issue deserves close attention.

THE FACTS OF THE TRUCKING IMMIGRATION PROGRAMS:

There are three major enforcement policies revealed so far. They are:

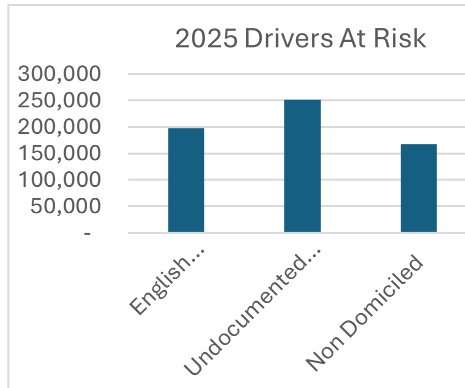
1. ***English proficiency:*** The Administration intends to revoke the CDLs of any driver who cannot pass a basic English proficiency test. There is concern that such drivers may not understand English road signs. Language problems may have caused recent crashes in Florida. This proficiency test would apply to both U.S.-domiciled drivers and Mexican drivers transporting goods under the B-1 cross-border program. It could apply to undocumented and documented drivers. Analysts using US DOT data estimate that almost 5% of drivers would fail a language test. That estimate equates to 20% of immigrant drivers[3]. If so, this policy would subtract 197,000 drivers from the population. Language proficiency will be enforced in the field during safety stops and when applying for a CDL. Note that among the programs so far, this has the most uncertainty regarding requirements. The other programs are relatively well defined: does the driver have documentation; does the driver have non-domiciled status? What qualifies as English fluency is a highly subjective matter that will require the development of standardized tests and training for officials conducting the tests[4]. Documented drivers failing the tests will likely resort to litigation.
2. ***Documentation:*** The Administration is directing governmental agents who stop and inspect a commercial vehicle to check the immigration status of the driver. Undocumented drivers will be removed from service and referred to immigration officials. Since the FMCSA estimates that there are 3.5 million roadside inspections per year, it is reasonable to expect that a large percentage of undocumented drivers

[3] This number includes Mexican over-the-road truck drivers operating in the U.S. under B-1 Visas. We estimated that about 25% of the 80,000 Mexican drivers crossing the border daily move beyond the immediate border area.

[4] Such tests will be required for many languages, not just Spanish.

will be identified. The analysis above identifies that roughly 8% of drivers are undocumented. Should all be identified, 314,000 would depart trucking. However, 20% of those drivers would already be disqualified by the English language requirement, leaving a net disqualification for improper disqualification at 252,000 drivers.

3. ***Non-domiciled:*** Currently, employers can acquire temporary documentation for immigrants where the normal hiring markets are insufficient. Approximately 5% of the driver population has such documentation, with varying amounts of time left before expiration (all within two years). If those documents are not renewed, the industry would lose another 167,000 drivers. This estimate is also net of language disqualifications. When combined with the other two policies, the population at risk is 614,000 drivers, which is 16% of the total driver population.



There is also an ongoing effect: All three of the above policies will apply to new hire candidates. That same 16% reduction of the active workforce applies to the recruiting pool. With the average tenure of a driver within the industry of roughly seven years, fleets must source annually 16% of their drivers from outside the industry[5]. That 16% of those candidates disqualified by immigration programs means the fleets will have to recruit an additional 98,000 drivers from their non-disqualified sources each year. This estimate includes the increase in documentation and testing requirements that will make the recruiting process less efficient, reducing the number of drivers recruited for any given recruiting efforts.[6] Fleets will require language testing and the possession of a green card or passport. The same kind of productivity challenges will affect driver training schools, enforcement organizations, and driver licensing bureaucracies. Adding in the productivity hit increases the net incremental hiring effect to 104,000, which is 6,000 more drivers.

[5] This 16% estimate applies to recruits sourced from other sectors. Turnover in trucking, including drivers changing companies within the industry, is much higher, for some sectors over 100%. For the industry as a whole, Transport Futures estimates a 35% turnover, recognizing that private, dedicated, and local operations have much lower turnover. Those higher turnover rates do not apply to immigrant hiring because most of the regulations analyzed here will disqualify the driver indefinitely after a first attempt to join trucking. Language testing is the one exception where documented drivers who do not speak English sufficiently well will have the opportunity to improve and test again. However, such learning may take several years, especially given the strict fluency requirements that are likely in the current political environment.

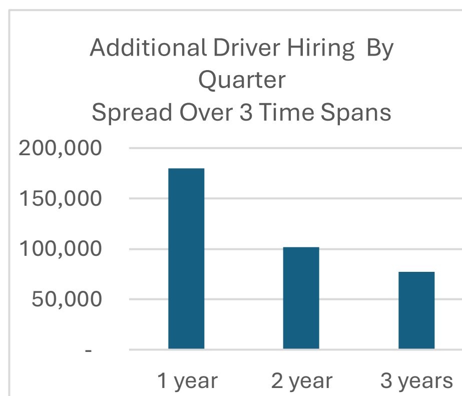
[6] This analysis assumes a 5% efficiency effect in hiring.

Safety is also in play with immigrant control: There are three aspects to the problem:

1. As stated above under the English language policy, drivers with poor English skills have trouble reading road signs, responding to police directions, and, importantly, making themselves clear when asking for help. There are also questions about such drivers' understanding training.
2. There is some evidence that unscrupulous operators illegally obtain licenses for immigrant drivers.
3. Second, immigrants are disproportionately represented in the smallest fleets and fleets competing in low-price segments. Those operations will sometimes lack the vigorous safety cultures of the best-managed fleets. They provide inadequate training and frequently push drivers to violate hours of service regulations. Sifting such capacity to more responsible operations should have a positive effect on safety.

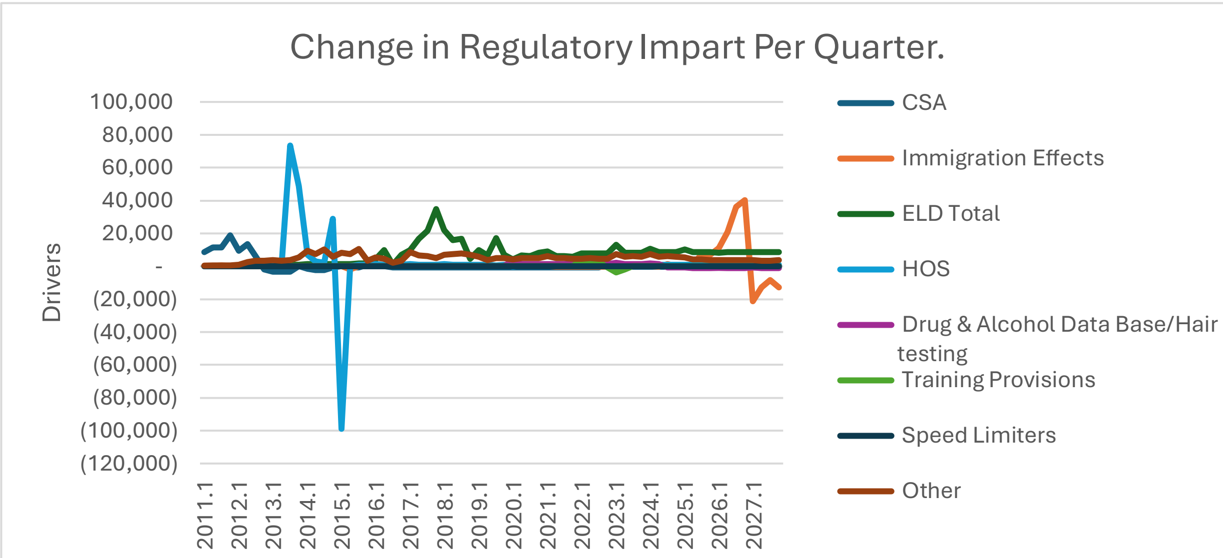
FORECAST CONSIDERATIONS:

The policies will take some time to execute. This analysis calculates the elimination of the drivers plus the hiring limitation effect over three time spans: one, two, and three years. The timing effect has great uncertainty in both directions. The Administration prefers to accomplish the effect quickly. There are already isolated, but dramatic reductions in place. In addition, we expect additional policies to appear. During the time of this analysis, the number of major policies has increased from three to four.[7] However, managing a market covering 50 states and four million drivers will be very difficult, especially since drivers and some carriers will resist the changes, not to mention the courts. That said, use the 1-year estimate to represent aggressive action and the 3-year estimate for a conservative view. The graph illustrates the effect on a quarterly basis. It includes the hiring effect identified above.



[7] One study estimates a 1.4 million reduction in the U.S. immigrant population (2.6%) since the start of 2025. Applying that percentage reduction to trucking would achieve 18% of the reductions calculated in this paper.

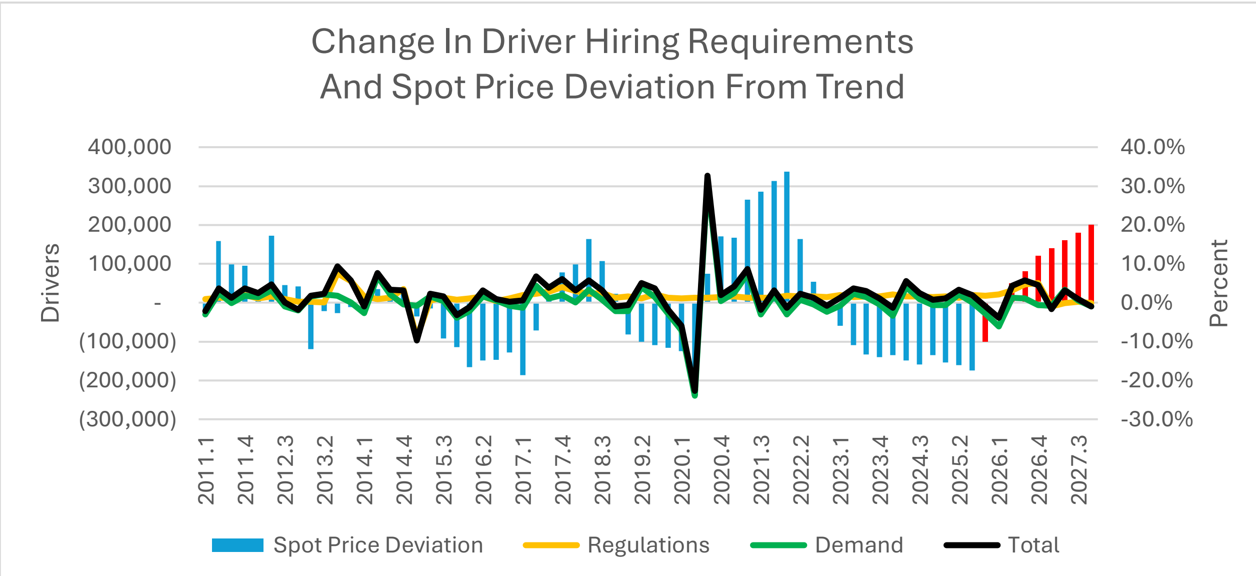
Driver shortages happen when the number of hires required changes: Driver recruiters have to source well over a million drivers per year, despite the difficult working conditions of truck driving. They must do that even as the regulatory drag[8] on the industry will have doubled the recruiting challenge by 2027, when compared to 2010. The recruiters are impressively successful except under one condition: when the requirement for drivers



substantially and quickly increases. The recruiters fall behind: capacity can tighten dramatically. The recruiters will take a year or more to catch up. The accompanying chart shows that two regulatory changes since 2010 have had this effect: hours of service 2013-2014 (blue line) and ELDs 2017-2018 (green line). Soon, they will be joined by the immigration regulations (orange line). The immigration effects seem more powerful than the ELD changes and more enduring than the HOS changes, which were reversed by Congress in 2015. This program should have a stronger effect on hiring than either of those two previous crises. Note, importantly, that these estimates include some productivity effects from the regulations. Surely hiring will be burdened with additional requirements. Operations will also be affected by drivers attempting to avoid discovery. Some of that behavior has already appeared.

[8] Regulatory drag on industry hiring is the increase in hiring pressure either from decreases in productivity or the disqualification of drivers as with immigration controls,

What happens will be a combination of economics and regulations: To understand the effect on capacity utilization and pricing, one needs to factor in changes in the basic demand for trucking, which affects drivers. That is because demand can vary more than twice the rate of regulation, either up or down. It is the sum of the two, regulation and demand, that determines pressures on hiring and capacity, which in turn determines price. The accompanying chart presents those sums plus the change in spot market pricing.[9] It



shows that the industry will face four crises over these 27 years: three driven by regulation (orange line) and one by demand, the Covid chaos (green line). The HOS event (2013-2014) had little effect on pricing due to the reversal by Congress. The other two historical events had significant pricing effects highlighted by the spectacular price increases of 2021. Supply chains will pay to avoid missed shipments. The red bars indicate a plausible spot pricing scenario caused by the immigration regulations.

Timing matters! The pricing forecast does not reflect a potentially dramatic interaction between demand and regulation. Many economists expect a recession in 2026. There is now enough anecdotal evidence of trucking weakness to make that forecast realistic. If so, weak demand will offset some of the regulatory effects. If a recession were deep and the immigration programs slow to produce effects, the industry would likely cut capacity in 2026. There is certainly enough stress in the market now to suggest that. However, by 2027, the economy could be recovering just as the effects of immigration peak. Recruiters, whose budgets are still being slashed due to recessionary pressures, would suddenly face rapidly climbing recruiting needs. Due to natural lags, recruiting capacity would continue

[9] We show spot pricing because its high volatility effectively shows changes in pricing and market conditions. Note that these calculations are presented as deviations from trend (above or below normal) in order to compare three very different measures in the same chart.

to fall, while an expanding market and significant regulatory drag necessitate a substantial increase in recruiting capacity. We saw a similar whipsaw effect in late 2020 and most of 2021 that created the most significant supply crisis in industry history. We could be headed for a repeat.

Enforcement matters: Much, of course, depends on the rate at which the new restrictions are introduced and enforced. If the program progresses slowly, even though it eventually achieves its goals, the peak in additional hires per quarter shown above would be reduced. Should the program accelerate rapidly, the reverse will happen. While it will be difficult to police a workforce of four million, truck driving conditions will naturally aid enforcement efforts. Each driver is identified in a CDL, a document that must be renewed periodically. Trucks and their drivers are easy to spot, unlike many applications for immigrants. Truckers naturally congregate at borders, at truck stops, at ports, at intermodal ramps, and at large distribution centers. Moreover, there are already existing monitoring activities that touch over three million drivers per year. It appears that enforcement is mainly a matter of budgeting. Finally, there is the matter of self-enforcement. Undocumented drivers may go into hiding to protect their families or to avoid discovery by ICE. Some of this behavior is already appearing.

Trucking segmentation counts. In two ways: The first is the concentration of immigrant drivers, particularly in fleets. Again, immigrant drivers hire on to fleets that serve immigrant-heavy regions and shippers. The Southern California population of immigrant drayage drivers comes to mind. The second filter is fleet size. The regional effect just mentioned biases immigrants towards small fleets. In addition, small fleets are less sophisticated about regulatory compliance and will manage the situation with less skill.

Geography counts: Immigrants have always tended to congregate in specific states, around particular industries, and in large cities. California, New Jersey, New York, and Florida all have immigrant shares above 20%. Texas is at 19.9%. Pennsylvania has strong immigrant concentrations in Philadelphia and in the chicken and fruit-producing areas of its midsection. Such locations will certainly feel the strongest effects of immigration restrictions, especially those blue states where the Administration is concentrating its efforts. The Sun Belt states, traditionally a center for trucking recruitment, have relatively low immigrant populations, averaging just 10.7%, even including Texas. The prime trucking customer sectors are construction, manufacturing, and agriculture, all of which have many immigrants. Their immigrant shares are above 20%. Note that with regional fleets, immigrants concentrate in those fleets that serve immigrant-heavy shippers. Such behavior dates back to the founding of our country. Importantly, this natural cultural bias makes those immigrant-heavy fleets particularly vulnerable.

What happens to supply chains? Capacity drives supply chain economics, especially in times of unusual shortages. Yes, trucking prices vary normally with capacity utilization, but by manageable amounts. However, when capacity utilization is in crisis and reaches 100%, some loads may be delayed. The costs of those delays to the shipper justify major increases in transport costs. At the extreme, as with delays for perishable vegetables, the entire load becomes quickly worthless. In late 2017, when capacity utilization reached 100% in spot markets, prices rose 16% above normal. In 2021, under the pressure of the worst supply chain crisis in modern history, spot prices rose to 34% above normal. Capacity matters, especially in spot markets, the segment that people rely on to solve problems. Immigration enforcement could put the market beyond the 2017 experience, leading to prices 20% or more above normal. Contract prices cycle less. However, the larger share of that segment means a 10% or 15% increase may be as important as the more dramatic spot increases.

As always, such a forecast is a risk analysis: Perhaps the courts will rule against some of the Administration's efforts – or the Administration will decide on additional, even stricter programs. Operators would be wise to consider a range of outcomes, some worse than the analysis here, some better. We just don't know in the fall of 2025, except that immigrant labor is important to trucking. Problems, serious problems, will occur when we restrict access to a large cohort of hard-working people.

What else could happen?

- ***Recession!*** Some analysts are concerned about slowing economic growth, whether due to immigration and trade policies or other factors. Obviously, slow growth or a recession would depress trucking demand, possibly enough to offset the effects of immigration policy. Unfortunately, the reduced pressures on driver supply would be offset by weak demand and weak pricing. The worst-case scenario involves again a near-term recession reducing capacity, followed by a recovery just as immigration restrictions reach maturity.
- ***Intermodal share gains?*** Note that intermodal's ability to gain *share* from problems in over-the-road trucking depends on its earning acceptable capacity from the drayage sector, a place with high concentrations of immigrant drivers. That said, intermodal *pricing* has benefited from higher truckload prices during past capacity tightness and should do so again this time.
- ***Is there replacement labor available?*** Finally, should the shortages occur, finding drivers would be made difficult by the general tightness of labor markets in the U.S. economy. The current unemployment rate is lower than the rates observed in previous years of driver shortages. When one factors in the absence of immigrant

labor in the hiring pool, the already difficult job of sourcing truck drivers will become measurably harder.

- ***Dedicated operations:*** Dedicated operations, whether private or for-hire, always become more attractive in times of trucking shortages. In the same way, supply chains are redesigned to emphasize stable product flows at the expense of seasonal peaks and promotions. We have already seen that in the reduced fall seasons of the last twenty years. In the short run, spot markets may benefit from immigration control. In the long run, dedicated operations will benefit.
- ***Truck automation:*** A supply chain crisis caused by inadequate truck capacity would increase attention to automated trucks. This issue will have a small effect in the short run, but will certainly accelerate the longer-term interest in automation.
- ***Uncertainty:*** Change of this magnitude increases management uncertainty. What will the Administration propose next? What are the specifics of the regulations? How will they enforce the program? How will my drivers react? How will the courts handle the many filings regarding the regulations? Finally, there is fear that accident liability losses will increase if accidents involve immigrant drivers who have avoided disqualification. Economic research is clear about the relationship between high risk and costs. Immigration control programs will add costs to an industry already under pressure from increasing costs. Rising driver and recruiting costs will certainly lead such a trend.