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Chair of Macroeconomics

Analysis on the Debated Effect of the minimum wage on
employment

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Introduction

The Minimum Wage could be one of the best anti-poverty tools in the hands of policy makers, because as we will study through this dissertation it increases the wage at the bottom end of the wage distribution.

Problems arise on this topic because economists do not agree on the impact that, such minimum wage has on the number of low wage earners losing their job as a consequence of its enforcement.

Some economists, as the ones we will encounter in chapter II, see the minimum wage as the ideal anti-poverty tool given that, they argue, within a certain threshold it doesn't reduce employment.

These economists would want the literature to switch its focus on where that threshold is, using data coming from countries with a high minimum wage or the ones that will raise it in the near future (see the U.K.).

Thanks to these scholars the minimum wage has become one of the most utilized tools in economics (as I will study in chapter I), with the most relevant contribution coming from David Card and Alan Krueger which have influenced the labor market analysis so much as to guarantee Card the 2021 Nobel price in economics.

Other economists, (the ones in chapter III) are of the opposite idea, seeing the minimum wage as discouraging employment, via raising the cost of labor for employers.

This view is compatible with the labor market being close to a perfect market, this is the approach most of us studying economics in the bachelor's degree met in the first year, and that was prevailing before Card and Krueger's breakthrough in 1992.

Among the economists seeing the minimum wage as an inefficient policy tool, David Neumark is the prominent, his papers are cited by most of the papers I have read on the topic, and this is the reason why I decided to put two papers to which he contributed, in chapter III.

The scope of this thesis is to provide a review of the main papers on the effect of the minimum wage on employment, trying to let anybody understand the reasoning of the economists and the way in which their analysis was carried on.

I tried to be as objective as possible enabling the reader to make up his/her own mind, even if, in the end I think that no definitive answer can be extrapolated for the main question each paper addresses, as each of the economist brings his own, coherent and logical reasoning and way of manipulating data.

Moreover, chapter I presents a definition of the minimum wage, some potential uses, along with the history and implementations of the minimum wage in OECD countries.

In this chapter I include:

- a brief summary of how the literature on the topic has evolved through the years in OECD
- an overview of the ideas of scholars on the topic.

This chapter was created to let the reader have an overall idea on the Minimum Wage and its uses, still the data analyzed in this paper come mainly from teens and young adults' labor market in the U.S. as most of the literature was made on that data.

To help understand which are the reasons behind the divergence in the literature, I added a last chapter (chapter IV), in this chapter I focus mainly in comparing modus operandi between the studies in chapter II and the ones in chapter III.

The scope was to help the reader, which doesn't have the time to study the papers himself, have a scheme of the Data and statistical differences leading to diverging results.

The authors themselves mention that the data can be collected via different methods, and that same data can be regresses with models that control for different variables that lead in the end to different results, this degree of discretion is what leads eventually to different estimates.

Having underlined those differences in the same chapter, it should be easier to make up one's mind on the issue.

To make this task even easier I inserted a final synthetic essay on what I think can be extrapolated after reading the papers I read (which are specified throughout the thesis and in the final bibliography), in which I suggest an evolution of the literature on the topic, following Professor Manning's eye-opening reasoning.

CHAPTER I: The minimum wage's History

1.1 Defining the minimum wage and studying its uses

The minimum wage is a legal floor which compels firms from hiring workers at a too low level of compensation. Such instrument is one of the tools in the hands of a country's governance to act on the economy in the attempt of enhancing the overall welfare of the population.

In the United States for example the minimum wage is set at the National level (currently there's a really low national minimum at 7.25 \$ per hour), but the regional authorities have the power to put in place a higher minimum.

Many States in fact have their minimum wage laws, in cases where an employee is subject to both the state and federal minimum wage laws, the employee is entitled to the higher of the two minimum wages¹.

The International Labor organization (ILO) goes deeply into the authorities that can implement such instrument: "Minimum wages can be set by statute, decision of a competent authority, a wage board, a wage council, or by industrial or labor courts or tribunals, Minimum wages can also be set by giving the force of law to provisions of collective agreements."²

The ILO, the economists we will encounter in the second chapter of this thesis and the OECD³ consider the Minimum wages as a policy instrument to overcome poverty and reduce inequality, including the Gender pay gap by making sure that work of equal value is equally remunerated.

The minimum wage also helps to prevent the exploitation of workers who have few job opportunities.

¹ U.S Department of Labor, <https://www.dol.gov/>

² ILO "minimum wages definition", <https://www.ilo.org/global/lang--en/index.htm>

³ The Organisation for Economic Co-operation and Development

1.2 OECD countries and the minimum wage

The number of OECD countries applying a minimum wage in the form of national floor of wages has increased strongly since 1998, going from 17 out of 30 to 29 out of 36.

Currently, 21 out of the 27 Member States of the European Union have a national statutory minimum wages⁴; in Denmark, Italy, Cyprus, Austria, Finland, and Sweden there is none.

The last country being Germany in 2015, Measured by the Kaitz index, which defines the relationship between the minimum and median wage, the new German minimum in 2015 (48 percent) was currently roughly equal to that of the UK (49 percent) and the Netherlands (46 percent). With respect to OECD countries, at the top, France had an index of 62 percent; at the bottom, Spain's was 37 percent.⁵

Since then, Germany has seen two increases in such minimum wage, and they are planning to increase it again in 2022.

These figures are there to show how relevant the minimum wage is in the current political debate and how, thanks to the declaration of organization such as the OECD and ILO the view on the minimum wage has become positive overall.

In fact, in 2012 A joint report from the IMF, World Bank, OECD, and ILO in 2012 wrote “a statutory minimum wage set at an appropriate level may raise labour force participation at the margin, without adversely affecting demand, thus having a net positive impact especially for workers weakly attached to the labour market”⁶

Moreover, the falling of living standards and purchasing power which had been the main topic of the last elections around the world (such as the France ones of 2022), bring back the minimum wage as a relevant topic.

In the United Kingdom in 1999 a National Minimum Wage was introduced; this was very controversial at the time, due to the government not basing its decision on the suggestions of its advisory board The Independent Low Pay Commission, since then it went from around 42% of median wage to 58%.

As of 2020 the Minimum wage as a percentage of median wage is at 61% in France, at 29% in the U.S. (7.5 \$ per hour as previously stated) and at 58% in the U.K. with the will to increase it to be 2/3rds of median hourly earnings by 2024.

It is interesting to note that in the U.K. there are differences in the minimum wage of people of different age, with people over 23 being affected by the M.W. but there are no differences between regions as in the United States.

The Greek system for example has had some age variation but also, unusually, variation by marital status and labor market experience.

All these differences help us understand why differences arise in the studies made on the topic.

⁴ Eurostat, <https://ec.europa.eu/eurostat/data/database>

⁵ OECD, 2017 study on minimum wage in Germany, <https://www.oecd.org/>

⁶ Alan Manning, *The elusive employment effect of the minimum wage*, journal of economic perspective, 2021

1.3 OECD countries with no minimum wage

The OECD countries having no minimum wage are Austria, Italy, Sweden, Norway, Finland, Iceland and Denmark.

Despite no Minimum Wage at the national level, some of these countries have wage minimums set by industry, through collective bargaining contracts.

In particular Sweden, Iceland, Norway, and Denmark have extremely robust union memberships and minimum wages are set for individual branches and occupational groups.

Unlike the U.S. in these countries most of the workers are unionized, so most of the workers have some kind of minimum wage, with the difference that unions differ from business to business, and ergo what is lost in terms of not everyone enjoying the floor might be regained in terms of efficiency.

In fact, some commentators argue that such business-to-business application may enable each industry to have a minimum wage fit to its needs, reducing as much as possible the employment effect we discussed throughout this thesis.

In Italy and Cyprus there's a strong political debate on the introduction of a national minimum wage, in Italy in particular with 86 per cent of the population in favor of the reform⁷ and with the main political parties not against it, something might happen on the issue.

What I decided to focus on is finding and exposing some data on Italy.

In Italy most of the workers, over 80%^{7.2} are covered by the so called CCNL (national collective contracts), which are collective bargaining contracts issued with the help of unions, that are supposed to give additional rights to workers with respect to the Italian law, almost always they include a floor to the wage an employer can pay in a given industry or job type.

Experts of the job market, such as Gian Paolo Valcavi, argue that with over 900 active CCNL contracts there is a full industry coverage and so the problem the government should address is how to reach the remaining 20 per cent of the people, not represented by the Italian unions, that aren't enjoying the bargained minimum.

It doesn't seem like a good idea to waste the efforts put in by the workers and the unions in finding what should be the fittest minimum wage by industry, this seems clear to deputies and parties that are making proposals integrating CCNLs and not substituting them.

What has been proposed to the commission of the chamber of deputies in Italy is a 9 euros pre-tax national minimum wage, that would be the ultimate floor for people not enjoying the CCNL minimum and for CCNLs that guarantee an amount lower than 9.

To put it in perspective, in Italy the median wage is 11.2 euros excluding agricultural workers and 7.6 euros including them, so that proposal implies an 80 per cent of the median minimum wage^{7.3}, which would lead Italy to the first place for the National Minimum Wage level with respect to the European Union and 10 per cent of people employed would be directly affected by the floor.^{7.4}

In practice however an employer in Italy, who's not inscribed in a union that wants to hire a non-unionized worker, must keep in mind that the constitution art. 36 prescribes the employer to pay "always a sufficient salary, proportional to the quality and quantity of the job"^{7.5}, it is the Italian common law and the Italian judges that compel the employer to pay a salary according to the CCNL of its sector, being the CCNLs considered representative of the "proportional and sufficient pay".

This in practice means that the 20 per cent of worker not under a CCNL are either getting paid more than the minimum or could ask a judge to get their pay raised in accordance to the collective contract.

In my personal opinion, with this custom set, for an employer is almost irrational to pay a salary lower than CCNL's as he/she is sure that the workers can get it anyway, and he/she would have to pay legal expenses as well, so this practice works as a deterrent.

Of course, this is different from a compelling minimum wage because, for different reason in this 20 per cent there are many fragile workers, that would be better protected by a national minimum wage, which would directly ensure a floor to their wage, still we can't say that in Italy the employer has freedom in choosing the wage.

If the policy maker wants to be cautious a good idea would be to do what Germany, the U.K. and most countries did in issuing a M.W. , that is starting from a minimum wage around 60 per cent of the median and then eventually raise it as data is gathered on the effect it has on the job market.

7.1 https://www.repubblica.it/politica/2022/05/25/news/salario_minimo_favorevole_186_degli_italiani_gli_effetti_economici_della_guerra_spaventano-351077837/

7.2 <https://quifinanza.it/lavoro/video/salario-minimo-ora-si-puo-la-novita-che-puo-cambiare-tutto/649892/>

7.3 <https://www.camera.it/leg18/1>

7.4 <https://www.istat.it/3>

7.5 <https://distaccoue.lavoro.gov.it/it-it/Aree-Tematiche/Area-Tematica/id/3/Contratti-collettivi-nazionali>

1.4 History of the literature on the minimum wage effect on employment

Before the 1990s there was an almost unanimous consensus among economists that the minimum wage, setting a floor to the wage that the employer could provide, would have caused a shortage in the demand for the increase in labor cost and ergo decrease employment.

This fact is easily understandable with a demand and supply graph were Labor is the good exchanged and the demand of it comes from firms in the economy.

During this period a model called the “Neoclassical Model of the labor market” was accepted, according to that standard model, each employee is paid his or her “marginal product” (I.e., the contribution that he or she makes to the firm’s revenue). If a worker is earning 4\$ per hour and contributing the same amount to the firm’s revenue, and the government imposes a minimum wage of 4,5\$, then it is no longer profitable to employ that worker. In response the employers will tend to lay-off workers affected by the low wage, employ more machines and hire more skilled workers whose marginal productivity is higher.

As we will study in this thesis, the above works in the case in which the market where that labor is demanded is a perfect market.

Whether the labor market is a perfect market will be topic of debate for economists, since Card and Kruger, two American economists, published a paper in 1995 that destroyed the believes on the issue.

What the 2 economists did was, a study of employment in the fast-food industry after the 1992 increase in New Jersey ‘s minimum wage, showing that employment was not affected adversely by the Minimum Wage.

They surveyed more than 400 restaurants throughout New Jersey and eastern Pennsylvania, before and after the increase in the New Jersey minimum wage.

Restaurants in Pennsylvania, where the minimum wage remained unchanged, were used as a benchmark, and the conclusion was that employment in New Jersey actually expanded with the increase in the minimum wage.

They also did a cross-state analysis finding that the 1990 and 1991 increases in the federal minimum wage did not affect teenage employment adversely.

Professor Card said that their findings, that the minimum wage had not led to significant job losses, was not immediately accepted.

"People thought we were either cooking the books or had lost our minds or did something untoward or foolish,"⁸.

From that moment on dozens of studies on the topic were brought on, with the development of the so called "New Minimum Wage Research", among the most relevant Neumark and Wascher (2007), Neumark and Shirley (2021), Alan Manning Journal of Economic Perspectives 2021, Dale Belman and Paul J. Wolfson the New Minimum Wage Research (2014).

Just to give an overview of the topics:

-In Alan Manning's view the Labor market is a particular one in which deviations from perfect competition are much larger than in many other markets. In his opinion it is time for the literature to move on to try to address the question of how high the minimum wage can be raised without significant employment effects appearing.

- Economists such as David Neumark⁹ are convinced that overall, the Labor market is an efficient market in which the effect of the Minimum Wage on employment is indeed negative.

In fact, 25 years after the research began, there is no consensus on the employment effects of the minimum wage.

A Nobel price have been awarded to David Card for its studies on the labor market and for the revolution its studies brought to the issue, being the author of Myth and Measurement still alive after all of the studies on the topic that were made following his work, the way in which he summarizes those studies, is of public domain, the economists stated in 2015 with his colleague Card: "*[T]he literature after Myth and Measurement was about equally likely to find positive as negative employment effects of the minimum wage, with the typical estimate very close to zero.*".

Still authors like Neumark, which wrote papers summarizing the literature think otherwise.

In his view the minimum wage reduces employment opportunities for less-skilled workers and tend to reduce their earnings; they are not an effective means of reducing poverty; and they appear to have adverse longer-term effects on wages and earnings, in part by reducing the acquisition of human capital.

⁸ BBC, <https://www.bbc.com/news/business-58870395>

⁹David Neumark is professor of economics at the University of California, with a Ph.D. at Harvard

Chapter II: The Literature seeing the minimum wage as weakly affecting employment

2.1 David Card and Alan Krueger

This paper dated 1995 as stated above would be the pioneer of a long research on the effect of the minimum wage on employment, for obvious reasons I decided to put it first in this analysis of papers concluding that the minimum wage is not negatively affecting employment.

I cited above the “Neoclassical model of the labor market” which was the one accepted before this research, the Card and Krueger believe that this model is based on too strong assumptions, such as

-The fact that paying a higher wage doesn't affect a workers' productivity.

-The impossibility of employers to get lower prices from their suppliers, to raise prices in their market or to exploit the lower turnover due to the higher wage.

-The fact that workers are willing to work at any wage given, and so the fact that firms have the power to decide freely the wage at which to hire.

This model predicts that the minimum wage unambiguously lowers employment, the new research finds different results by acting on the statistical methods previously used and finding new data on which to apply them.

Discussing the old research on the topic, the authors advocate that previous cross-sectional and panel-data studies rely on questionable assumptions and research methods, the most relevant being the non-adjustment for serial correlation¹⁰.

Time-series studies in general instead relied on the assumption that observations from other time periods (during which the minimum wage was lower or higher) can be used as a counterfactual for the present. In the authors words “this is a less compelling methodology than the use of other labor markets in the same time period as a counterfactual”¹¹.

The time series way of gathering data is also subject to serial correlation, a recurring defect in time series analysis, these reasons lead the authors to make use of only the first 2 ways of obtaining Data.

Moreover, even if one sees the old research as appropriate, Card and Krueger's research on new Data with more sophisticated statistical tools yields that “the historical time-series relationship between minimum wages and teenage employment has become much weaker”¹².

The Modus Operandi of this research is particularly relevant as it will set the standard for the papers to come.

The authors compare the effect on employment of a minimum wage increase in restaurants in New Jersey, with respect to the change in employment in Pennsylvania¹³, where the minimum wage remained unchanged. Making a survey of more than 400 restaurants, Card and Krueger found that employment in New Jersey increased with respect to employment in Pennsylvania, furthermore in New Jersey employment grew more in restaurants where they were paying the minimum wage than in the ones in which the wage was already higher than the new floor.

They also study the effect of the federal¹⁴ minimum wage on single state's employment, including:

- An analysis of Fast-food restaurants in Texas after the 1991 increase in the federal minimum wage leading to an increase in employment, while the starting wages in Texas restaurants increased by 8 percent.

- a cross-state analysis finds that the 1990 and 1991 increases in the federal minimum wage did not affect teenage employment adversely, despite an 11% increase in the starting wage, not even in states like Alabama where the percentage of teenagers earning below the minimum wage was around 50%.¹⁵

Below lies a table that the authors place in chapter 12 of their book, summarizing all their studies on the effect of M.W. on employment.

TABLE 12.1
Summary of Estimated Employment Effects

<i>Analysis</i>	<i>Source of Wage Change (1)</i>	<i>Nature of Comparison (2)</i>	<i>Proportional Effects on</i>	
			<i>Wages (3)</i>	<i>Employment (4)</i>
1. New Jersey–Pennsylvania Fast-Food Restaurants	New Jersey minimum wage rises to \$5.05 April 1992	Across states and within NJ between high- and low-wage restaurants	0.11*	0.04
2. Texas Fast-Food Restaurants	Federal minimum wage rises to \$4.25 April 1991	Between high- and low-wage restaurants	0.08*	0.20*
3. California Teenagers	California minimum wage rises to \$4.25 July 1988	Between teenagers in California and comparison areas	0.10*	0.12
4. Cross-States, Teenagers, 1989–1992	Federal minimum wage rises from \$3.35 to 4.25	Across states with higher and lower fractions earning \$3.35–4.24 in 1989	0.08*	0.00
5. Cross-States, Workers with Low Predicted Wages, 1989–1992	Federal minimum wage rises from \$3.35 to 4.25	Across states with higher and lower fractions earning \$3.35–4.24 in 1989	0.07*	0.02
6. Cross-States, Employees in Retail Trade, 1989–1992	Federal minimum wage rises from \$3.35 to 4.25	Across states with higher and lower fractions earning \$3.35–4.24 in 1989	0.05*	0.01
7. Cross-States, Employees in Restaurant Industry, 1989–1992	Federal minimum wage rises from \$3.35 to 4.25	Across states with higher and lower fractions earning \$3.35–4.24 in 1989	0.07*	0.03*

*Effects that are significant at the 5% confidence level

Row 3 of table 12.1 shows percentage change in employment and wage after the July 1988 increase in California's minimum wage. The rise in the minimum wage in California led to a 10 percent increase in wages for teenagers in the state relative to those in the comparison areas.

It is interesting to note that in 5 out of 7 studies (including the one in California) the positive data for the effect of the M.W. on employment is not statistically significant but it's not different from zero either, meaning that from the table summarizing the author's study it seems like the minimum wage has a positive or no effect on employment.

Moreover, what the authors find, that goes against the "Neoclassical Model of the labor market" is that after the increase, employers raise the wages of people at a level of wage lower than the minimum and sometimes raise the wage of workers that were previously at the minimum or close to it, this confuting the idea that workers are paid at their marginal productivity.

Economists, like Alan Manning try to explain this invariance of employment w.r.t. the minimum wage, one of the explanations being that the employers could reduce benefits given to workers, like holidays or leisure activities during work time.

(What Card, Krueger and later Manning find is that those benefits are not touched, on average, by Firms.)

In Alan Manning's view, and in the view of rational policy makers, it is obvious that studying the effect of the Minimum Wage on employment is useful if the effect of the floor is observable on the income of workers, I.E. if it has an effect on the economy, If it doesn't, it can't lower employment as it doesn't raise the cost of labor for firms.

That's the reason why Card and Krueger insert in their book in chapter 9¹⁶ an analysis on the effects of the minimum wage on the distributions of wages, earnings, and incomes.

Using data from 1989–1992 they study family-income characteristics of minimum-wage earners and compare changes in the distributions of wages and earnings across different states after the 1990,1991 and 1994 increases in the federal minimum wage.

They allegedly find strong evidence that an increase in the minimum wage raises family income for families in the bottom 10 percent of the wage distribution.

The authors conclude their book by saying that the employment losses from a much higher minimum wage than the one applied in the studies could be high.

Their study is relevant for a moderate range of minimum wages, such as those that prevailed in the U.S. labor market during the 80s/90s. Within this range, they argue there is little proof that increases in the minimum wage will generate large employment losses.

Card and Krueger want to place their analysis as the one ending the discussion for moderate levels of the minimum wage, redirecting the economists' focus on the characteristics of workers and families who receive pay increases from an increase in the minimum wage, and the effect of the minimum wage on profits and prices.

¹⁰ Serial correlation is a statistical error which leads to an overestimation of the effect of the variable, if 2 variables one in t and one in t+1 have a strong serial correlation, to understand the magnitude of the effect you must isolate that serial correlation effect.

¹¹ Card, David. "Myth and Measurement : The New Economics of the Minimum Wage - Twentieth-Anniversary Edition /."
" *Myth and Measurement* : 2015. (original version 1997)

¹² Ibidem, Chapter 12

¹³ Pennsylvania and New Jersey are adjacent states so as to make the comparison more suitable.

¹⁴ The Federal minimum wage is the minimum wage decided in Washington which is the floor for all of the states in the U.S., In the States in which there are 2 minimum wages (one state specific and the federal), the worker is entitled to the highest of the 2 Minimum wages.

¹⁵ Those Data are adjusted for growth of the region studied and are also compared to other states in order to avoid statistical mistakes.

¹⁶ Chapter 9 of Card, David. "Myth and Measurement : The New Economics of the Minimum Wage - Twentieth-Anniversary Edition /."
" *Myth and Measurement* : 2015. (original version 1997)

2.2 Alan Manning

Alan Manning writes a paper for the Journal of Economic Perspectives in 2021, Manning's paper¹⁷ is different from most papers, in the fact that it focuses also on the U.K and not only on the United States, offering a different perspective on the issue.

Moreover, unlike the papers by Neumark and Shirley (which I will analyze in detail in chapter III of this dissertation) it is not a literature review but a study of the effect of the minimum wage of particular subgroups, I.e., it is the kind of study Neumark and Shirley would insert in their Distribution of estimates.

In Manning's view it is reasonable to limit the search for the minimum wage's employment effect to segments where a significant wage effect can be detected.

This is the view of most economists and as a result, most studies on the minimum wage's employment impact concentrate on teenagers and on the countries in which the Minimum wage is high with respect to the median wage of the industry analyzed.

In his paper, the Data Manning chooses to use is the one coming from the U.S. teenage labor market using quarterly state-level panel for 1979–2019.

Despite the minimum wage in the United States being, as a whole, quite low relative to median earnings (directly affecting less than 5 percent of workers), it is often binding in the teen labor market.

The author seems to be aware of the fact that the teen subgroup is a particular one representing only 2 percent of total hours worked in 2019 in the United States.

Moreover, the Teens could be subject to a backward-bending labor supply curve⁵ meaning that they are not a representative group for the overall population effect of increasing the minimum wage.

First Manning states that Minimum wages do affect the wage of workers, if it wasn't so there would be no point in studying it as no employment effect could arise.

In particular for teen wages, there is a clear robust and significant impact of minimum wages on their hourly wage.

He finds that a non-linear regression of the **effect of the minimum wage on the wage** of teens is the most fit and yields an elasticity of about 0.25 when the minimum wage is 40 percent of the average wage, but about 0.57 when the minimum wage is 60 percent of the average wage.

Moreover, from his Panel Data-Analysis Professor Manning finds that the Effect of minimum wages on employment is negative and significant only in one of the 7 models he uses to estimate the Effect

(the negative and significant one is the Model with census division interacted with time effects, but no state trends).

Moreover, in all the other 5 models, in which the fact that states could have different trends in their labor market is accounted for, we can see positive but not significant effects of the Minimum Wage on employment.

The reason for the differences in findings between Manning and its colleagues is due to Data being gathered differently in each study as explained above, and in part to the fact that, each economist chooses to isolate its model for a different variable he considers the most relevant.

Manning similarly to Card and Krueger isolates his model for state-related effects (economic trends, labor market differences etc.) and for time differences, while for instance Neumark, Salas, and Wascher (2014) use a synthetic control effect, that is comparing the effect on a given group in which we have a change in the minimum wage to a weighted value calculated on similar groups which didn't have the increase.

Other authors like Dube, Lester, and Reich (2010) have argued that the best way to isolate the minimum wage effect is to compare the state in which the M.W. has increased to one on its border in which that hasn't happened.

If one considers the view of any published economist to be just as relevant as his/her colleagues what Neumark and Shirley (2021) offer, is an interesting summary of all the economists' view, and pools all of these ways of controlling for different variables (I tried to summarize their view in chapter III.) Through that work, all those adjustments are put together, to find a distribution of estimates of economists' studies on the effect of the minimum wage on employment.

Manning's view on this can be extrapolated from one of his conferences, in which he finds researches like Neumark and Wascher (2007) or Neumark and Shirley (2021) to arrive to neglectable negative elasticity effects.

So, he doesn't go as far as to address them as worthless but he discusses on the magnitude of the finding, saying it is not incompatible with his view of the Minimum Wage not being disastrous for employment.

More on this topic in the last chapter of my dissertation.

To sum up Manning's view is that the effect of the minimum wage on employment is Negative and significant only after a certain threshold, trying then to explain what the reasons for this counter-intuitive fact are.

In fact, the data previously mentioned focused on the United States which is an outlier in having a relatively low level of minimum wages in relation to median earnings.

Manning studies deeply the U.K. as well, having a National minimum wage close to 60 per cent of median earnings, since its enactment, useful reviews of the evidence had been commissioned by the UK Treasury¹⁹ showing no employment effects not even on the most affected workers, while raising the worker's wage consistently.

Studies done under the Low Pay Commission's supervision (the body competent with respect to policy suggestion on National Living Wage and the National Minimum Wage) have found little or no employment effect for the National Minimum Wage.

In the Low pay commission report of 2020²⁰ is stated that pre-covid Labor markets employment for the groups most associated with high minimum wage use continued to improve faster than for others. Areas of the country with higher coverage of the minimum wage saw similar or higher employment growth than other areas and pay growth was high at the bottom end of the distribution.

What Alan Manning finally suggested to policy makers in his conference to the LSE (2021) was that: Minimum wage can be part of a strategy to reduced poverty and Inequality but don't expect too much and don't try to use it to achieve everything, moreover, be flexible in the case in which new evidence or new studies arise that make the minimum wage undesirable.

¹⁷ Alan Manning, *The elusive employment effect of the minimum wage*, journal of economic perspective, 2021, Manning is professor of economics at the London School of economics, he is internationally recognized as one of the main expert on Minimum Wages.

¹⁸As min wage goes up teens may decide to work less as they are now richer (income effect) and would rather study more than work more.

¹⁹ <https://www.gov.uk/government/publications/impacts-of-minimum-wages-review-of-the-international-evidence>

²⁰https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/943301/LPC_Report_launch_event_presentation.pdf

2.3 Belman and Wolfson 2014 and other institutions

The authors organize a Meta-analysis of the studies made after Card and Kruger's Myth and Measurement, deeming the studies carried out after them to be relevant thanks to the revolution brought by the 2 economists, as those new papers are mainly time series analysis but adjusted for serial correlation²¹ in sophisticated ways.

Belman and Wolfson (2014) have carried out a meta-analysis of the minimum wage, focusing on studies published only since 2000. They identified twenty-three minimum wage studies covering both teenagers and other kinds of workers in the United States and other countries, selected because they included the necessary elasticity estimates and corresponding standard errors for their meta-regression analysis. Using the 439 estimates contained in these studies, Belman and Wolfson produced a range of meta-estimates, controlling for a variety of features of the underlying studies, including the type of worker analyzed (teens or restaurant workers), whether the analysis was based on a quasi-experiment or more conventional regression analysis, the authors of the study, and other characteristics. They were careful to distinguish between studies adjusting for serial correlation²² errors and to factors as publication bias.

When they restrict their analysis to the United States, Belman and Wolfson find that minimum wages in the range recently experienced in the United States “are not associated with reduced youth employment” and have “no effect” on employment in eating and drinking places.

Moreover, one of the most important chapters of their book focuses the attention on the signs and significance levels of employment elasticity, as usual in those type of studies the largest portion of the research on employment levels focuses on teenagers.

In their Meta-Analysis they find that no significant negative effect is foreseeable given a 10 per cent increase in M.W in developed countries.

The conclusion in the authors' words is:

“Evidence leads us to conclude that moderate increases in the minimum wage are a useful means of raising wages in the lower part of the wage distribution that has little or no effect on employment and hours”²³.

A 2019 letter signed by scores of economists, including many prominent academics such as Daron Acemoglu, Sandra Black, David Cutler, Emmanuel Saez, Juliet Schor, and Nobel Laureates Angus Deaton and Peter Diamond, says that:

“The last decade has seen a wealth of rigorous academic research on the effect of minimum wage increases on employment, with the weight of evidence showing that previous, modest increases in the minimum wage had little or no negative effects on the employment of low-wage workers.”

The letter is signed in total by 134 Ph.Ds. from different universities in the United States and can be found at: <https://www.epi.org/economists-in-support-of-15-by-2024/>

-Daron Acemoglu (Professor of Economics at MIT) in a February 2021 article for Project Syndicate suggests that democrats under Joe Biden apply the 15 dollar per hour national minimum wage as to him after Card and Kruger’s Myth and Measurement new empirical, based on large samples and finely tuned literature failed to find negative employment effect of the minimum wage.

Acemoglu informs us of his studies on the fact that the labor market is far from being a perfect market which thus enacts employers of market power (putting it in David Ricardo’s words it gives them the power to extract “rents” from the workers).

In doing so he goes against the view that minimum wages unambiguously reduce employment, minimum wages in Acemoglu’s view, just redistribute some of the profits from firms to workers.

Moreover, employees aren’t hired at marginal productivity as previously thought, in fact in his studies he finds little evidence for employers diminishing investments in productivity, or benefits given to employees.

²¹p.401 of Book What does the minimum wage do? , Belman and Wolfson (2014).

²²Serial correlation is a statistical error leading to an overestimation of the effect of the variable.

²³If researchers or journals are less likely to publish results that suggest zero or positive employment effects of minimum-wage increases, meta-analyses would be biased toward finding negative results.

CHAPTER III: The literature seeing the minimum wage as strongly affecting employment

3.1 David Neumark and William L. Wascher²⁴ (2007)²⁵

The authors in this paper perform a study on the effect of the minimum wage on employment, discussing also the effect of the Earned Income Tax Credit (an anti-poverty tool which can go along with the minimum wage as it fosters the participation in the labor market without aggravating the cost of labor for firms) and their interaction.

Still, what is relevant to this thesis is the effect of the minimum wage on employment that the authors find in their study of young workers (16-24 included), that is what I am going to focus on in the next chapter.

The authors use data on wages, employment, and hours of work of individuals with state-level information on minimum wages, earned income tax credits, and welfare policies for the period 1997 to 2005 gotten from annual summaries of federal state labor legislation reported each year in the Department of Labor's *Monthly Labor Review*.

Neumark and Wascher build up a regression model that is present in their paper:

$$Y = \alpha + \log(MW_{st}) \beta + X_{ist} \lambda + G_s \mu + M_{vt} + G_s \cdot t \cdot \pi + \varepsilon_{ist} \quad (1)$$

The 'i,' 's,' and 't' subscripts denote individuals, states, and months, respectively.

We can see through this equation that the authors control for state specific trends as noted in the variable G (example: the tendency of wealthier states to having higher minimum wages) and for time effects M_{onths} (e.g.: Time effects that might be correlated to the minimum wage).

X is the control variable against which the effect is computed.

The authors, just as Manning does in his paper, compute the effect of the Minimum Wage on the income of the worker and on employment.

The reasoning is the same, if the M.W. had no impact on the overall income of affected workers it would be pointless to even have a Minimum Wage.

The estimates that the 2 economists find suggest that the size of the effect is inversely related to skill level, that could be because the highest-skilled ones tend to be less affected by the M.W.

The positive effect is also larger for 16–19-year-olds than for 16-24 or 20-24 year-olds as expected, White workers saw a significant increase while Black and Hispanic workers were found to experience no increase in wage whatsoever.

Overall, the estimates point to positive effects of minimum wages on the wages of least-skilled workers, although there is a handful of cases of negative effects, which may be explained by the underlying economics or may reflect data issues (including smaller samples).

The authors then go on to study the effect of the minimum wage on employment using the same equation as above, the results are summarized in the following table²⁶:

Table 2: Estimated Effects of Log Minimum Wages on Employment, 1997-2005

Sample	All			High school or less	High school dropout
	16-19	16-24	20-24	20-24	20-24
<i>Specification 1</i>					
Log minimum wage	-.054*	-.019	.041	.092	.122
<i>Specification 2: add state-specific linear time trends</i>					
Log minimum wage	-.070	-.025	.030	.016	-.126
<i>Specification 3</i>					
Log minimum wage, lagged 1 year	-.023	-.014	.012	-.080	-.194
<i>Specification 4</i>					
Log minimum wage	-.073*	-.024	.031	.041	-.091
Log minimum wage, lagged 1 year	.010	-.003	-.003	-.098	-.152
Sum	-.063	-.027	.028	-.057	-.243
Employment elasticity	-.158	-.049	.041	-.088	-.455
N	190,501	390,617	200,116	87,915	25,887

Note: The * indicates the 10% confidence level. Standard errors are clustered on state.

Specification one is the regression including the control variable, the state and time fixed effects as explained above.

Specification 2 adds in also the trends that the specific state is experiencing in its labor market

Specification 3 considers also the possibility that the effect of the minimum wage could be lagged by one year, while in the fourth specific. both possibilities are included.

What is evident from the table is that teens (16-19), being the least skilled group are the ones that could be suffering from a negative effect on employment from the minimum wage.

What is found is that, including state specific trends, the estimate of the employment effect on teens' wage is not significant anymore, despite being negative.

In the fourth specification, combining both the lagged effect and the contemporaneous effect of the minimum wage on employment we get back a significant and negative estimate, even if neither alone is significant.

What is also evident is that the group whose age is in the middle of the sample sees only negative estimates but none of them is significant not even at the 10% confidence level.

There is no evidence for women's employment to decline after a M.W. increase, the situation is different for men.

As we analyzed when state trends are included, young workers combined, as well as men-workers combined experience no disemployment effect, but when black or Hispanic men are studied things change, with statistically significant negative effects for 16-24 and 20-24 year-olds.

It must be noted that, what we were most interested in, for the comparison with the other studies mentioned above **was the effect on teenagers**, which indeed show relevant proof of disemployment effect in Neumark and Wascher's findings.

In the conclusions of the paper the authors specify again how also the employment elasticity is negative, in the range of -.5 -.6 and significant for young minority workers and non-negative for women apart from high school dropouts, suggesting again that fragile, low-skilled workers are the most affected by the Minimum Wage policy.

²⁴ W. Wascher is Deputy Associate Director in the Division of Research and Statistics at the Board of Governors of the Federal Reserve System, David Neumark is one of the most cited economists in the Minimum Wage field, his paper in 1992 with Washer shifts the focus of economists on the topic on state level panel data, his papers are cited thanks to his wit in about 70% of the Papers I have read on the issue.

²⁵ D. Neumark, W.L. Wascher, Minimum Wages, the Earned Income Tax Credit, and Employment: Evidence from the Post-Welfare Reform Era, 2007, IZA, <http://ssrn.com/abstract=969377>.

²⁶ Table gotten from the paper cited in the reference above.

3.2 David Neumark and Peter Shirley²⁷ (2021)

Modus Operandi: The authors²⁸, focusing on the United States and noticing that economists' views on the overall literature on the minimum wages effect on employment are really diverse and not in accordance with each other, find a way to efficiently summarize the results of the main authors on the theme.

They assembled the entire set of published studies in the literature and identified the *core* estimates for employment elasticity²⁹ that support the conclusions from each study, in most cases relying on responses from the researchers who wrote these papers.

The authors sent a request to underline the most informative variables for 66 papers, including most of the U.S. literature on the employment effects of minimum wages published beginning with the New Minimum Wage Research.

They put in the study the papers listed in Neumark and Wascher's (2007) review of the literature, they then added the published papers in the meta-analysis of Wolfson and Belman (2019), which covered roughly the prior 15 years and hence most papers missing in Neumark's previous study.

Finally, they integrated those papers via a web search in Google Scholar for "Minimum Wage," covering the years 1992 to 2020, of course excluding time series studies.

They don't capture all estimates reported in those studies (that would have been a meta-analysis), but only the ones their writers deem as the most relevant.

In fact, they advocate that using the entire set of estimates reported fails to convey the conclusions of the research, most importantly because many papers present estimates that the authors do not view as credible or that they don't consider fundamental in explaining the phenomenon.

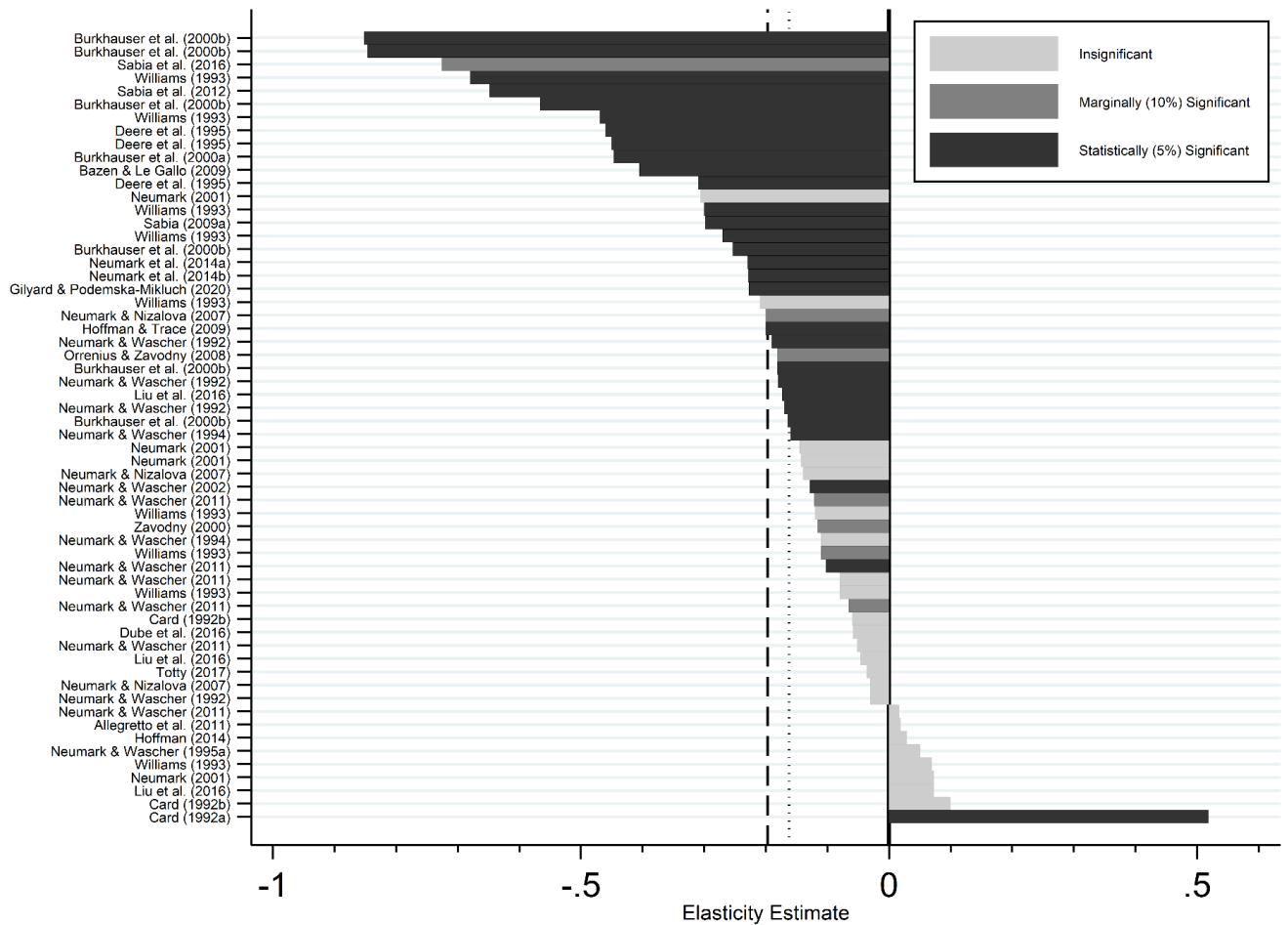
To understand which those estimates are, they either ask the authors directly or when the author is not reachable (14 per cent of the cases) they choose the most relevant estimate themselves¹³⁰.

(It must be noted that this paper follows the tendency started by Card and Krueger's (1995) to use subnational wage variation and not the national variation to study effects on employment, and ergo focuses on the studies that apply the same logic.)

The authors care about documenting and understanding the distribution of estimates, such as the share of estimates that are negative (or negative and significant) and of course the central tendency as well.

They consider the distribution as being more instructive w.r.t an estimate of the average value of elasticity as there could be differences in time-population analyzed (more on this in chapter IV).

Below lies a table the authors present in their study, showing the size and level of significance of the analyzed studies:



*The dashed and dotted lines show the mean (-0.197) and median (-0.162) elasticity estimates.

Empirical conclusions: There is a clear preponderance of negative estimates in the literature. From the Data 79.3% of the estimated employment elasticities are negative, 55.4% are negative and significant at the 10% level or better, and 47.9% are negative and significant at the 5% level or better.

Now this data seems to suggest that overall, the literature indeed finds a negative effect on average for the Minimum wage on employment, and for what Neumark and Shirley say the minimum wage would affect low wage earners more negatively than it would help them.

The 3 most positive estimates of the effect of the minimum wage come from the least recent papers, confuting the hypothesis that the labor market is becoming more neutral with respect to the minimum wage.

The authors, deeply analyzing the papers above come to interesting conclusions for the effects that different groups-industries suffer from the minimum wage, offering logical explanations for the events occurring.

What the authors find is that when you study the effect of the minimum wage on a group, in particular the low-wage group, young adults and teens, rather than on an industry (low wage ones), the effect is more strongly negative.

Neumark and Shirley suggest this could be due to the fact that when groups that are likely to suffer from the minimum wage are analyzed (e.g. low skilled or low wage) the labor-labor substitution effect is noticeable as employers, when the minimum wage increases, just switch in part to groups who were already earning more than the minimum wage not to lose any competitiveness.

When instead an industry is studied, within it even if employers switch to higher earning individuals in that industry the overall employment wouldn't seem to have been affected.

That's highly relevant as it would explain the weaker evidence for industry's studies that arise because of labor-labor substitution. However, strong labor-labor substitution in the industry studies implies that there can be relatively weak overall employment effects for an industry but larger job losses for specific groups of workers in that industry.

Moreover, the authors say how a good deal of the evidence that is less consistent with disemployment effects comes exactly from industry studies, which may be the evidence that is least relevant to the question of whether some low-skilled workers lose their jobs when the minimum wage increases.

From the evidence above it seems much clearer that employment *does* decline among low-skilled workers when the minimum wage increases.

The authors conclusions:

There is strong and consistent evidence of negative employment effects for teens, young adults, the less-educated, and directly-affected (low-wage) workers, with the estimated elasticities generally larger for the less-educated than for teens and young adults, and larger still for directly-affected workers.

In contrast, the evidence from studies of low-wage industries is less one-sided, with a smaller percentage of negative or negative and significant estimates.

Now, there are studies, including those of low-skilled workers, that do not find employment effects that are significantly different from zero, and/or with estimates that are near zero or sometimes even positive, but, the authors write: “concluding that the research evidence as a whole fails to find disemployment effects of minimum wages requires discarding or ignoring most of the evidence on low-skilled workers or relying on the industry studies where labor-labor substitution is more likely to mask job loss among the least-skilled workers”.

²⁷Neumark, D. & Shirley, P. (Forthcoming). Myth or Measurement: What Does the New Minimum Wage Research Say About Minimum Wages and Job Loss in the United States?" *Industrial Relations*.

²⁸David Neumark is one of the most cited economists in the Minimum Wage field, his paper in 1992 with Washer shifts the focus of economists on the topic on state level panel data, his papers are cited thanks to his wit in about 70% of the Papers I have read on the issue.

Peter Shirley has a Ph.D. in Economics, University of California-Irvine, 2018, he is a researcher at the same institution since 2014

²⁹Employment elasticity is the change in employment that occurs, in percentage, when there's a one percent increase in the wage of the worker.

³⁰The authors claim that right thanks to the fact that they were able to predict most of the estimates that the authors deemed as the most relevant, in the remaining 86 per cent of the studies.

Chapter IV: Understanding the differences leading to different outcomes in the Literature

The papers analyzed in this thesis study the labor market in the United States, what comes natural in the reader's mind is to think how come this happens, my aim in this chapter is to address such question, comparing the papers I have written about and their methodology.

Card and Krueger (chap II) are the first economists finding a positive/non negative effect of the minimum wage on employment, the reasons for this breakthrough with respect to the old literature are to be found in:

-The way Data is gathered, analyzing state-level panel data, rather than aggregate time-series data, finds different time-series patterns of the minimum wage across states, that can be used to estimate the impact of the minimum wage.

In particular, by including year and state dummy variables, the identification of the impact of the minimum wage results exclusively from different time paths of the minimum-wage index in each state.

-The more sophisticated statistical tools used by the authors, the most important being the adjustment for serial correlation¹⁰, such adjustment as previously stated could have brought errors in the estimates, in particular in the time series analysis carried on in papers preceding the 90s.

-At the moment of publication, the authors' study was the one using the most recent data, for this reason in their view, changing labor markets might have caused the new surprising finding.

Alan Manning's paper was published almost 30 years later and finds similar results.

The way in which the economist's analysis is made is really influenced by the 2 authors, Manning abandons time-series analysis, comparing data among similar states in the same periods through quarterly state-level panel data³¹ for 1979–2019 and the economist also focuses on teenagers and young adults like most of the papers on the minimum wage including Card's.

The differences between the 2 are in the period analyzed (for obvious reasons) and in the more sophisticated statistical tools that were born in 30 years of statistical evolution.

I dig now through the reasons for which those 2 studies are in discordance with the studies finding marginal negative effects for the minimum wage of which Neumark is the main actor.

Manning's different result with respect to other economists, comes from the fact that any of them chooses to isolate his/her model for a different variable he/she considers the most relevant.

Manning similarly to Card and Krueger isolates his model for state-related effects (economic trends, labor market differences etc.), the way in which this changes the results of the estimations is explained in chapter II and is also evident in Neumark and Wascher (2007, chap III) where when state trends are added to their estimation, the results tend to positivity.

Moreover, Neumark in most of his studies uses a synthetic control instead of state-related controls, such synthetic control consists of comparing the effect on a given group in which we have a change in the minimum wage to a weighted value calculated on similar groups which didn't have the increase, this doesn't happen in the paper I study in chapter III from 2007 where a Time series cross-section data analysis is undertaken, paralleling much of the existing research, studying teenagers and young adults.

Manning collects data differently from Neumark and Washer (using a state-level panel data approach), but in his baseline regressor he computes the effect of the Minimum Wage on employment, using the same controls as the 2 American authors, (that is controlling for state and time trends as explained above) leading in fact to a negative elasticity estimate.

What leads to the different conclusions in the end is the fact that Manning adds to his baseline regression other controlling factors (e.g., the possibility that states have different trends in the teen labor market, the possibility that different regions of the US have different aggregate labor market ecc).

Manning in fact runs 7 different regressions, among which he controls for non-linearity, regional trends and the examples mentioned above, what some may argue is that his approach seems more complex and so might be more accurate, Manning decided to address this topic personally.

In fact, in a conference in Johannesburg³², Manning doesn't try to explain why his statistical analysis is more proper than Wascher and Neumark's, but he argues that they find a negative effect of the minimum wage that is almost neglectable, for how low it is, for this reason he argues, there's no point in continuing the trench warfare that the literature on the minimum wage as been and to focus on more relevant issues.

The other two papers I didn't mention in this analysis are the ones of Neumark and Shirley (2021) and Belman and Wolson (2014), the reason for this is that they are not an analysis of the available data on the effect of the minimum wage, but a summary of studies on the topic.

In fact, the papers I commented previously in this chapter, are the typical example of studies summarized by those 2.

Belman and Wolson's paper finds no significant effect of the minimum wage on employment, vice versa Neumark and Shirley advocate that there's strong and consistent evidence of a negative effect of the minimum wage on employment.

The latter argue in their study that meta-analysis³³, such as the one undertaken by Belman and Wolson, might fall in the error of putting in their summary estimates that the authors of the papers in question do not view as credible or as relevant, not giving the right weight to the most important estimates.

Moreover, meta-analyses typically focus on obtaining an average effect size from a set of published estimates, in the minimum wage literature typically the magnitude of the elasticity of employment with respect to the minimum wage, just as in Belman and Wolfson.

Neumark and Shirley are interested instead in documenting and understanding the distribution of estimates, such as the share of estimates that are negative (or negative and significant), how it varies and the central tendency as well.

With such approach the 2 are able to give less weight to outliers in the positive side of the distribution, in particular those are 3 studies in which Card and Krueger are involved (including the famous 1992 study).

Giving those 3 papers less weight is the best approach in the authors' view as they are the earliest studies, ergo things might have changed in the labor markets during the 30 years passed.

Both studies focus their attention on addressing the problem of serial correlation, but Belman and Wolson advocate that the practice of using only published paper for one's analysis may bring to a statistical error called publication bias³⁴, trying to adjust for this issue.

Neumark and Shirley (2021) will avoid adjusting for this issue, as Belman and Wolson themselves in their updated paper in 2019, with new statistical tools find little evidence of publication bias.

An advantage of “Belman and Wolfson 2014” is that, being the study a meta-analysis, it is already an established analytic approach in the scientific world for creating new knowledge.

That is, it’s done systematically, follows pre-stabilized criteria and pools the results (creating an enlarged sample which could lead to more precise result).

The Paper by Neumark follows instead an innovative procedure of getting the estimates directly from the authors of the papers, this implies some discretion in the fact that, for some papers, (for which they didn’t receive an answer from the authors) they choose the right estimate themselves.

If those differences weren’t enough, there are important differences in the material underlying the research.

Neumark analyses almost any published Paper that was written from Card and Krueger (1992) until 2021, being able to put in the distribution 45 papers, while Belman and Wolson’s paper studies the 15 years of literature going from year 2000 to year 2014, including 23 papers in their study (even if an updated paper from Belman and Wolson from 2019 exists and finds the same results as the former).

³¹ -Longitudinal data (Panel data): Data where there are multiple observations for each unit, over time.

-Cross-sectional data refer to observations of many different individuals (subjects, objects) at a given time, each observation belonging to a different individual. A simple example of cross-sectional data is the gross annual income for each of 1000 randomly chosen households in New York City for the year 2000.

-Time series Data is data that is collected at different points in time.

³² Manning’s conference on the minimum wage in Johannesburg

³³ A meta-analysis is a research process used to synthesize or merge the findings of single, independent studies, using statistical methods to calculate an overall effect. Analysts use generally recognized statistical methods to account for differences in sample size, variability in study approach and findings.

³⁴ In the first years of the 2000 it seemed that papers yielding negative employment effects of the minimum wage were more likely to be published.

My personal view on the issue at stake

In doing this research I found a higher difficulty in finding papers that supported professor's Neumark view, that is the view I exposed in chapter III, for which minimum wages (even when low with respect to the median wage of the country) cause a reduction in employment.

No economist claimed that really high minimum wages don't reduce employment, but finding a strong opposition to the instrument such as Professor Neumark's, was difficult.

It might be because those type of papers were written by less famous economists, still in the end I had to rely on 2 papers to which Prof. Neumark contributed himself.

In my opinion, if such a strong negative effect was present, as Neumark advocates, we would see a heavier effect on employment than the -0,16 elasticity he found in his paper and a more clear cut view from the overall literature would be present.

Every paper I analyzed reaches a different conclusion, due to factors such as the way data is gathered or the controlling variables used, for this reason I agree to the thesis that no unilateral effect of the Minimum Wage can be found.

The professor himself admits that controlling for state trends leads to non-negative effects of the Minimum Wage on employment, this shows that, until one of the control methods is deemed as the most fit, no agreement will be reached.

What I find odd in Neumark and Shirley's method in summing up the literature, is that around 50 per cent of the papers they put in their distribution (at page 24 of the thesis) is made of papers to which Neumark contributed and some of the estimates put in the distribution, were chosen by the authors themselves, as explained in chapter IV.

This might led to some discretion in the papers' analysis which could end up in a systematic bias in the final estimates.

If I was asked, after reading a lot on the issue and after writing this dissertation, if the labor market is a perfect market, in which a higher Minimum Wage reduces employment I would answer that the literature is not agreeing completely, but I agree with the papers in the second chapter, which see some space for policy in raising the minimum wage without causing a decrease in employment.

There are several reasons for the labor market not being a perfect market, in fact a higher minimum wage might raise the number of people searching for a job (which would make it easier for firms to employ people), it might push the employers to train employees in being more efficient, it might be that employers are just exploiting their market power in order to extract extra profits from workers and so on.

These seemed to me all reasonable reasons explaining why the Minimum Wage might not be the disaster it seemed before the 80s.

Before that period there were errors in Data gathering and in statistical adjustments, for which a new wave of literature was needed, nowadays if no improvement in the statistical method is made (or errors in the main papers found), there is no point, in my opinion in wasting the best economic minds' energy in studying the same data on the U.S. teenage employment over and over.

Moreover, I found professor Manning in particular as being a really open economist, who bases his studies on data coming from policy, for this reason I share his thought that, given that no agreement could be found and that no strong employment effect was found in the end, the right way to go would be to try a braver approach such as the one the U.K. is trying, raising its minimum wage to 66 % of the median wage in the country by 2024, in this way new research on new data could be performed and some answer could be reached on the topic.

In the end citing Keynes, Economics is a tool we created in order to address and solve real world problems, such tool needs data to study, and such data can come only from policy makers which are brave enough to try new welfare approaches and eventually back off in the case in which that policy doesn't work out.

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