# **Impact of Education on Wages**

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**Author Note**

I have slightly digressed from the classic APA structure in order to provide a better overview for the given assignment.

# **Introduction**

Human capital theory in a broad sense encompasses the central idea that human capital and thus labor output varies across individuals due to some underlying characteristics. These intangible characteristics include skills, training, ability, formal education, and other that impact economic productivity and with that the earnings of an individual. Some of the mentioned characteristics fall into the internal locus of control for an individual which then implies the possibility, along with the implied incentive, of both the individual and the environment (state, employer) to treat the controllable factors as a form of long-term investments. In that regard, the focal point of this research is going to be a relationship between *education* and the returns on it in the form of future *wages*.

This relationship is among the “most robust findings in social science” ([[1]](#footnote-1)). This is not surprising when we take into account the explosive expansion of the field of human capital since the nineties of the past century ([[2]](#footnote-2)). Consequently, the expansion of research itself on this topic is hardly surprising, when the observed increase in education of the world population has skyrocketed since the 1950s; the proportion of those with secondary education went from 13% to 51%, and for those with tertiary 2.2% to 14.6% ([[3]](#footnote-3)). In the same manner public spending on education around the world has increased with a slightly steeper upsurge in developed countries ([[4]](#footnote-4)).

With this in mind, it is only natural ask why is this so? Well, it is nothing but a sensible response of both individuals and states to the underlying incentives empirically revealed by the studies. The studies emphasize education and its ability to explain the wage variance both within and between countries, accounting for up to one-third and one-half of variance respectively ([[5]](#footnote-5)).

The field of human capital has come a long way since its early inception with the work of Becker ([[6]](#footnote-6)). This was not without the criticisms on numerous grounds. From the very terminology that might insinuate workers as assets of the capital owner, or the failure to address inequality and the socio-economic obstacles that come with it, to the overemphasis on formal education and the economic returns, while ignoring the quality as an important aspect of said education, non-economic benefits of learning, and the possible effects of social capital factors on wages. These critiques are all sound and some have compelled research to new and uncharted areas, but they all fall out of scope for this work.

This work zeroes in on the wages regressed on the education, along with other controls and instrumental variables to account for possible endogeneity. To that end further structure will consist of the main body, discussion, and conclusion. The main body will introduce relevant literature as well as the assumptions, methods, and the dataset, with the variables within it in parallel to the research pertinent to them. The part on discussion will wrap up the findings, review possible gaps that might sprout further research, and rationalize the policy relevance of the findings before the final conclusion.

# **Impact of Education on Wages**

Summarize and quote the important research on this topic that has gone before you. Define subject-specific vocabulary or related theory. Usually, you want to look at books for background. You might want to use your textbook or an encyclopedia to find the names of researchers or theories that are important to the topic, then, search for those names on [UWW Library’s homepage search tool, Research@UWW](http://library.uww.edu/). Search Research@UWW for keywords of your topic (example: cyber warfare or cyber attack) to find related articles and books. Need help? [Ask a Librarian](http://library.uww.edu/get-help/ask-a-librarian).

**Dataset, Variables, and Methods**

Let’s talk about in-text citation. Anytime you summarize what someone else has said, you must always include the author’s last name and year either in the text narration (see next paragraph) or in parentheses at the end. Most in-text citations should look something like this, with the period after the parentheses (Ramirez, 2017). If you include any direct quotes from someone else, include the author’s last name, year, and page number in parentheses at the end. “Here is an example” (Ramirez, 2017, p. 26). If a work has three or more authors, the in-text citation includes only the first author’s last name and then “et al,” like this: (Stein et al., 2019).

**Results**

If you would rather not have so many parentheses breaking up the flow of your text, you can also work the in-text citation into what you are writing. For example, you can explain in your narration how Pavlov et al. (2019, p. 5) are known for their research into classical conditioning with animals, while Skinner & Ferster (1957) studied reinforcement of behavior in children.

The purpose of in-text citations is so your reader can find the correct source in your References, so if you include any authors or titles in-text, they absolutely must match up with a corresponding citation in your References. No “orphan” in-text citations! Find out more about in-text citation on the [UWW Library’s APA in-text citation page](http://libguides.uww.edu/apa/intext).

Business sources are not standard APA citations. See [UWW Library’s APA business sources citation page](http://libguides.uww.edu/apa/business).

## Discussion

FINDINGS AND FUTURE RESEARCH The discussion should be the largest part of your paper and include your argument, research, and experiences (for example, through Service-Learning). Each main point of your paper should start its own paragraph with a strong first sentence. Again, limit the use of “I” and “you” in academic writing.

POLICY RELEVANCE Remember to introduce quotations with who said it and/or why it’s important. Make sure quotes fit seamlessly in your paper. Include short quotations (40 words or less) in-text with quotation marks. Use ellipsis (...) when omitting sections from a quote and use four periods (....) (i.e., an ellipsis plus the period) if omitting the end section of a quote.

This is a longer quote, which is 40 or more words. Indent the quote a half-inch from the left margin and double-space it with no quotation marks. To get the right format, just click on “Quote” in the Styles area on the Word frame above. In parentheses, include the author’s last name, year, and page number at the end, but no period (Smith, 2017, p. 45)

If you include website sources, make sure they are trustworthy. Evaluate your sources using the questions on [this page](http://libguides.uww.edu/evalweb). Check out our [LibGuides by subject](http://libguides.uww.edu/) page – we have a guide for your subject area, and many contain trustworthy free websites that you can use. Or search in some of our introductory databases such as [Academic Search Complete](https://libproxy.uww.edu:9443/login?url=http://search.ebscohost.com/login.asp?profile=web&defaultdb=a9h), [CQ Researcher](https://libproxy.uww.edu:9443/login?url=http://library.cqpress.com/cqres/lpext.dll?f=templates&fn=titlepage.htm), [ERIC](https://libproxy.uww.edu:9443/login?url=http://search.ebscohost.com/login.asp?profile=web&defaultdb=eric) for education, [Business Premium Collection](https://libproxy.uww.edu:9443/login?url=http://search.proquest.com/businesspremium?accountid=14791) for business, or other databases in which you can easily search for popular sources such as [newspapers](http://libguides.uww.edu/az.php?t=19166) and magazines.

## Conclusion

The conclusion restates the thesis and summarizes the main arguments or points of the article, so that your reader could just read the conclusion to generally understand the paper. What is important to learn from reading your paper? If you know of areas in this topic that need further study, mention them. After this paragraph, there is a page break that forces References onto its own page: You will want to keep it there.

## References

## [[More References examples for your assistance here](http://libguides.uww.edu/apa/examples)]

American Psychological Association. (year). Article title: Capital letter also for subtitle. *Name of Journal, volume#*(issue#), pg#-pg#.

Author(s) of essay or chapter. (year). Title of essay or chapter. In F. M. Lastname (Ed.), *Book title* (pages of essay or chapter). Publisher. <https://doi.org/10.xx.xxxxxxxxxx>

Freud, S. (year). Article title. *Name of Journal, volume*(issue), pages. <https://doi.org/10.xx.xxxxxxxxxx>

Pavlov, I., Jung, C., & Freud, S. (year of last update, month day). *Webpage title*. Source or hosting webpage. <https://www.someurl.com/full/address>

Ramirez, A. T. (year). *Book title*. Publisher. <https://doi.org/10.xx.xxxxxxxxxx>

Skinner, B. F., & Ferster, C. B. (year). Article title: Capital letter also for subtitle. *Name of Journal, volume#*(issue#), pg#-pg#. <https://doi.org/10.xx.xxxxxxxxxx>

Stein, D. J., Friedman, M. J., & Blanco, C. (Eds.). (year). *Book title* (edition, Vol. #). Publisher. <https://doi.org/10.xx.xxxxxxxxxx>

1. Demming 2022 pg75 [↑](#footnote-ref-1)
2. Demming pg76 [↑](#footnote-ref-2)
3. LeeLee as cited in Deming pg75 [↑](#footnote-ref-3)
4. RoserOrtiz as cited in Demming pg76 [↑](#footnote-ref-4)
5. Demming pg82 [↑](#footnote-ref-5)
6. Becker 1961; See Demming 2022 [↑](#footnote-ref-6)