

Returns to Private Sector's Education and Inequality

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Introduction

- In Pakistan Private sector is playing an important role in providing Education services. Provision of these services is usually the responsibility of the Government, as the Constitution of Islamic Republic of Pakistan, 1973 lays down that,

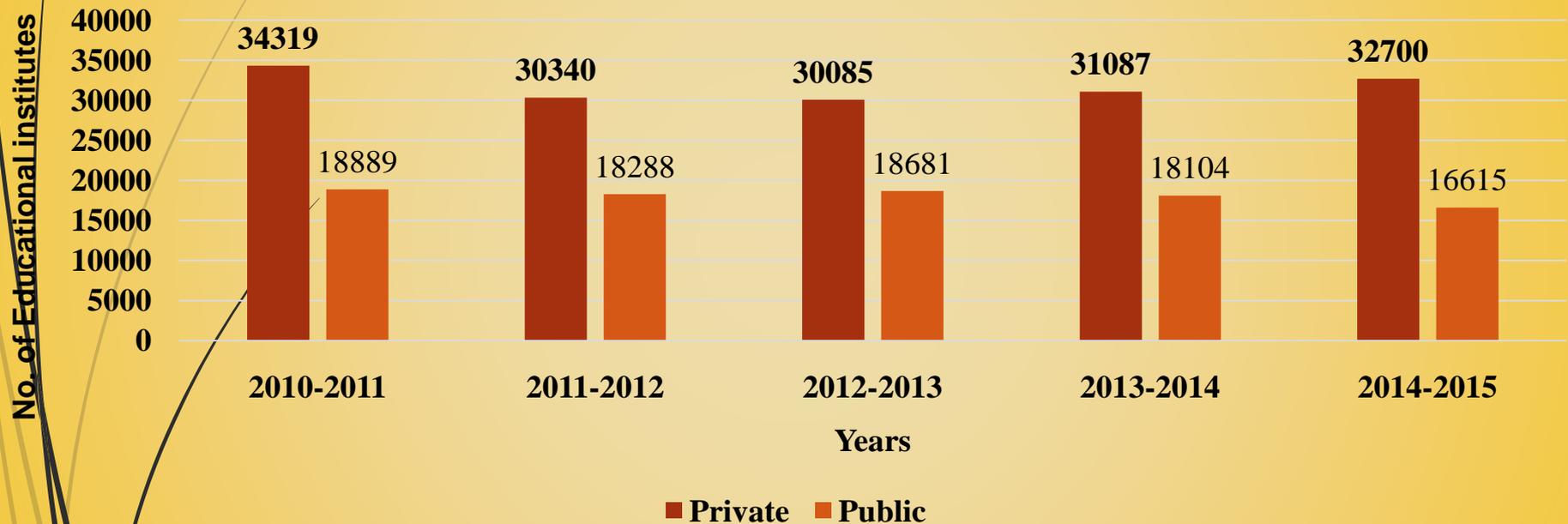
“State Shall be responsible for eradication of illiteracy and provision of free and compulsory education up to secondary level, within minimum possible time”
(Article 37-B Constitution of Pakistan)

- The article 25A- Right to Education- of Constitution says that,

“The State shall provide free and compulsory education to all children of the age of five to sixteen years in such manner as may be determined by law”

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- Pakistan is committed to achieve “education for all” such that all children (particularly girls) have access to free and good-quality primary schooling, in line with the Millennium Development Goal of universal primary education by 2015.
 - Unfortunately, Pakistan is among the countries which are not likely to achieve these goals by 2015.
 - Major reasons of the existence of Private sector in the field of education is failure of the Government to provide, monitor and supervise their educational institutes.
 - According to Pakistan Education Statistics (PES) 2014-2015, out of total educational institutes in Pakistan 33% are Private and serving 39% of total students, which hints a slightly higher Per-institutional enrollment ratio in Private sector compared to the Public sector.

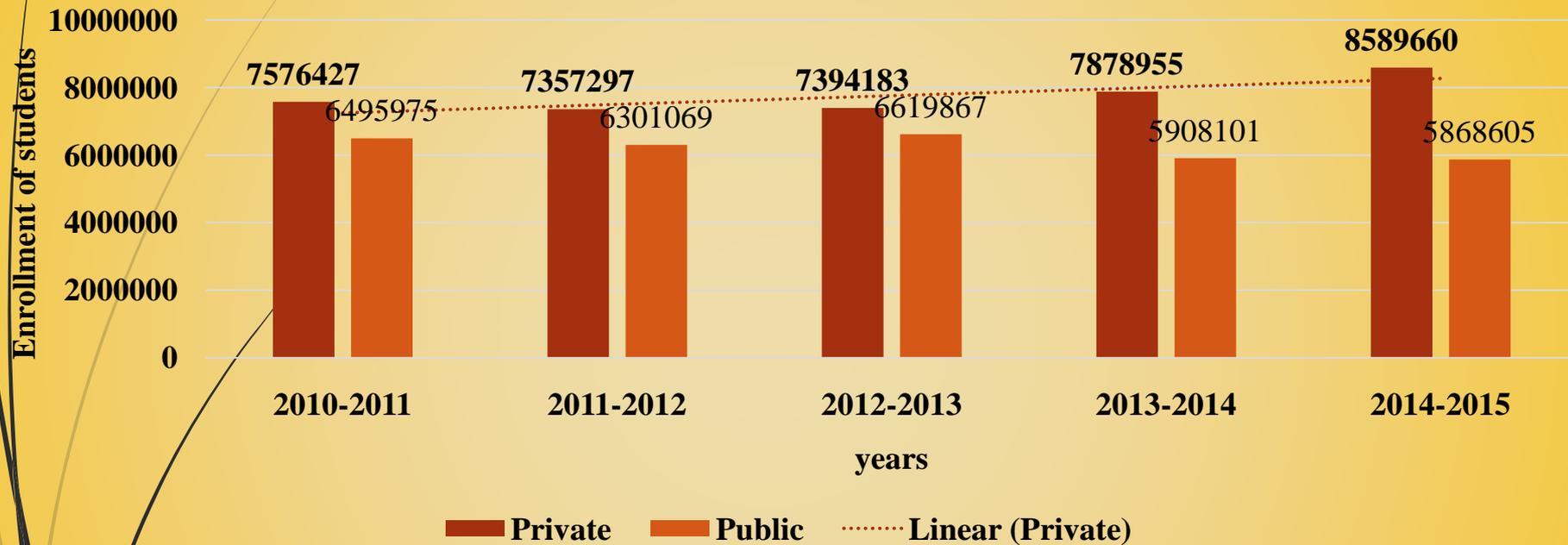
Educational Institutes in Urban Pakistan (Pre-Primary to Degree College)



Pakistan Education Statistics 2011-2015

- In 2010-2011 Private Educational Institutes in Urban Pakistan were 64% and Public Educational Institutes were 36%. In 2014-2015 the Share is 66% and 34% respectively.
- These figures show the increasing share of Private Educational Institutes by time in Urban Pakistan.

Enrolment in Educational Institutes of Urban Pakistan. (Pre-Primary to Degree College)



Pakistan Education Statistics 2011-2015

- In 2010-2011 Enrollment in Private Educational Institutes of Urban Pakistan were 54% and Enrollment in Public Educational were 46%. In 2014-2015 the Enrollment is 59% and 41% respectively.
- These figures shows the Increasing Enrollment in Private Educational Institutes of Urban Pakistan by time.

Teachers in Educational institutes of Urban Pakistan (Pre-Primary to Degree College)



Pakistan Education Statistics 2011-2015

- In 2010-2011 total Teachers in Private Educational Institutes of Urban Pakistan were 64% and in Public Educational Institutes 36%. In 2014-2015 it is 68% and 32% respectively.
- These figures shows the Increasing Share of total Teachers in Private Educational Institutes of Urban Pakistan by time.

- Private sector hence, playing an important role in providing educational services.
- However, despite the rapid expansion and its role in the provision of quality education, very little is known about its impact on wages and inequality that it has created over time.
- As the public schools are almost fails to deliver the quality education therefore when the qualified students of both the educational institutes enter in the labor market, they face inequality in terms of wages.
- Given the same level of education, qualified students of Private educational institutes have more skills and strong academic background as compare to public sector students, so they get higher returns of their education, which creates income or wage inequality in the labor market.

Objectives of the Study

- To construct the age earning profiles by education levels. At each level of education a separate earning profile is constructed to show the wage gap between the individuals qualified from public and private educational institutions.
- Another objective of the study to analyze the returns to private education by computing Internal Rate of Return (IRR).
- The IRR is estimated to show the additional earnings enjoyed by the individuals who completed their education from private institutes, as compare to those who got their education from public institutes. IRR hence also shows the income inequality that is created by the private sector.
- Further study has computed the IRR and age earning profiles for six different levels of education; Primary, Middle, secondary, Higher Secondary, Graduation, and Masters..

Review of Literature

Pasha and Wasti (1989) concentrating on the relationship between Unemployment and Rates of Returns to Education concluded that there is ambiguous relationship between unemployment and rate of returns to Education. In case of Social and private rate of returns to education for a sample of male workers, they concluded that, even, under certain conditions, Unemployment adjusted rate of returns to education can be higher than Unemployment unadjusted rate of returns.

→ Binelli and Rubio-Codina (2013) discussed the relative efficiency of Mexico's Private and Public schools, by measuring the impact of Private schools on educational attainment and wages. They concluded that attending the Private school does increase wages conditional on college completion.

- Asadullah (2009) concluded that Private schools in Pakistan as compare to Bangladesh are more effective than Public schools. In Pakistan Graduates from private schools earn more than the public school graduates, while evidence in support of private school graduates in Bangladesh is lacking.
- NASIR (1999) concluded that due to more skills and quality of education that an individual received from Private schooling, earns more than the government school qualified individual given the identical level of education. It is indicated that Private schools also reduces the gender inequality in the labor market.
- Iqbal (2012) found that Public schools have all physical facilities in spite of that, private schools perform better due to better monitoring & institutional supervision.
- Andrabi et, al. (2006) Private schools exist only in those areas where educated females are present, and existence of private schools is positively related to the existence of public girl's high schools

➤ Amjad (2012) analyzed that In case of Lahore, children enrolled in private sector have greater probability of better learning as compare to Government school, but this difference is minimal.

➤ Alderman(2001) concluded that Low private school fees and distance have positive relation to the enrolment of poor children in the private schools. Also private school's student have greater Mathematics and language skills than public school's students. The results indicated that even the poorest households use private schooling extensively.

➤ Existing literature, Pasha and Wasti (1989), Peet et al. (2015) and many others are either concerned about the rates of returns to education or efficiency of private schools and their rate of returns (Binelli and Rubio-Codina 2013, Asadullah 2009, NASIR, 1999).

➤ According to the best of my knowledge no study has estimated,

(i) The age earnings profiles by level of education of individuals qualified from private and public educational institutes and

(ii) Internal rate of returns to private education & Inequality.

➤ The data is extracted from Pakistan Social and Living Standard Measurement survey for the period 2011-12.

➤ As there exist a large disparity in rural and urban occupational choices and hence on wages, therefore for simplicity only urban areas of Pakistan are included in the analysis.

Methodology

For Internal rate of return to private Education or Inequality

- Internal rate of return (IRR) is the rate of return at which Net present Value (NPV) of the stream is zero, that is Present value (PVC) of costs is equal to the Present Value (PVB) of benefits.
- The computed IRR for a particular level of education shows the wage inequality that exists because of the differences in the public and private schooling for a particular level of education.
- Where PVB and PVC are calculated as;

$$PVB = \sum (W_{\text{pri}} - W_{\text{pub}}) / (1+r)^n$$

$$PVC = (C_{\text{pub}} - C_{\text{pri}}) / (1+r)^n$$

➤ $W_{pri} - W_{pub}$ = earning differential between the individuals having private or public schooling

➤ $C_{pub} - C_{pr}$ = expenditure differential on education by public and private schooling

➤ r = discount rate

➤ Here, Public Educational Institutes includes, all government's educational institutions offering Primary, Secondary, Higher Secondary, Graduation and Masters level of education

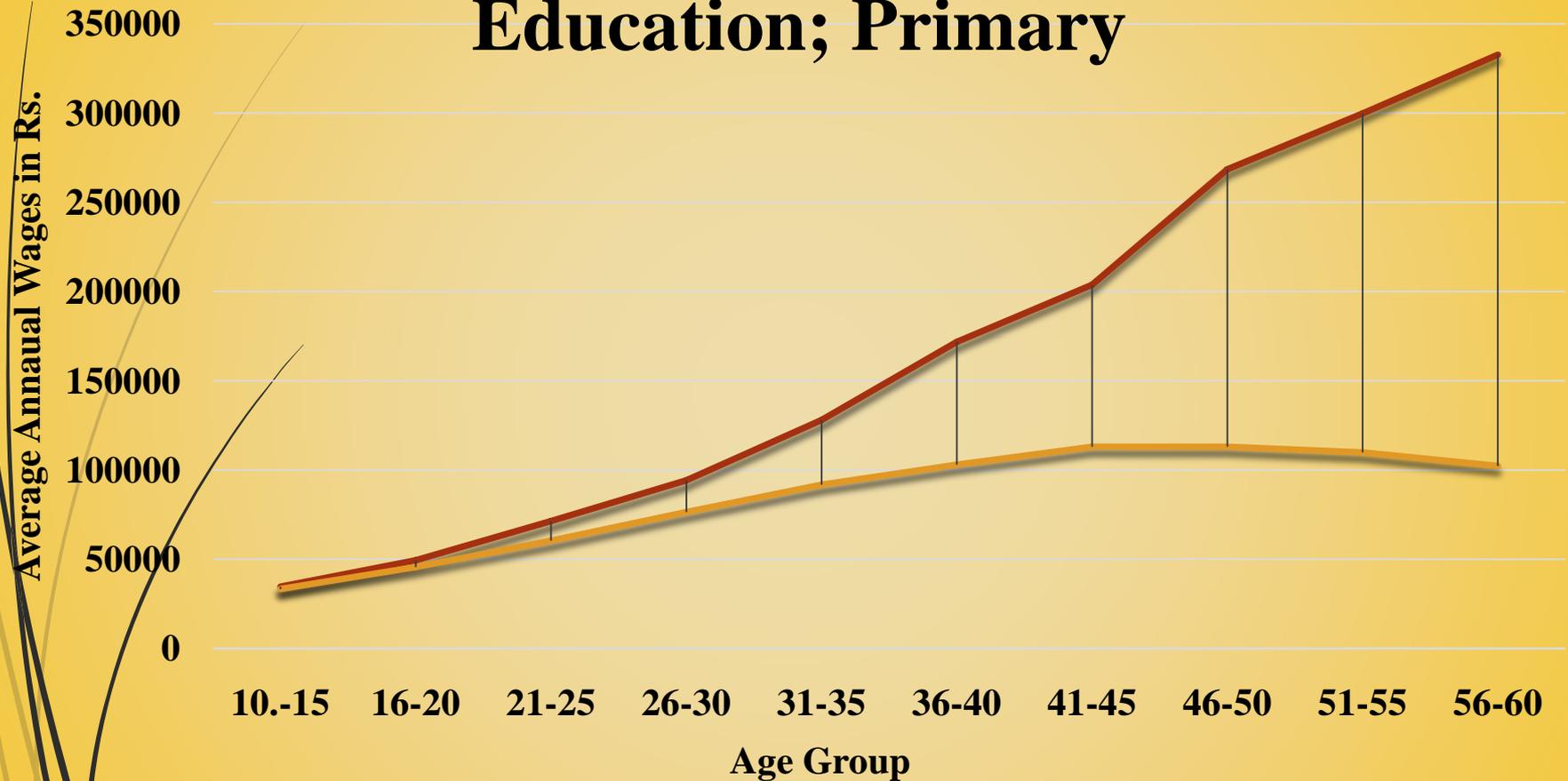
➤ While, Private Educational Institutes includes, all private educational institutions; Deeni Madrissa and NGOs/Foundation sponsored schools and others offering the same levels of education.

➤ Further, education expenditure includes per year or annual "Fees" which includes admission, tuition, registration, funds examination fees, expenditures on uniforms, books & supplies, private tuition, transport etc.

Age Earning Profile by Level of Education – Primary

| Age Group | Average Annual Wages of Private sector's Primary qualified People | Average Annual Wages of Public sector's Primary qualified People |
|-----------|---|--|
| 10-15 | 34653 | 33357 |
| 16-20 | 49411 | 45657 |
| 21-25 | 71394 | 60406 |
| 26-30 | 94253 | 76434 |
| 31-35 | 128001 | 91740 |
| 36-40 | 171807 | 103027 |
| 41-45 | 203764 | 113000 |
| 46-50 | 268502 | 113000 |
| 51-55 | 299786 | 109893 |
| 56-60 | 332678 | 102275 |
| 61-65 | N/A | 88456 |

Age Earning Profile By Level of Education; Primary



- Mean Annual Wages of Private sector's Primary pass out People (Urban Areas)
- Mean Annual Wages of Public sector's Primary pass out People (Urban Areas)

Age Earning Profile by Level of Education – Middle

| Age Group | Average Annual Wages of Private sector's Middle qualified People in Rs. | Average Annual Wages of Public sector's Middle qualified People in Rs. |
|-----------|---|--|
| 10-15 | 39635 | 39414 |
| 16-20 | 57887 | 53339 |
| 21-25 | 81359 | 71941 |
| 26-30 | 114911 | 92847 |
| 31-35 | 160886 | 115734 |
| 36-40 | 204456 | 134183 |
| 41-45 | 253540 | 150379 |
| 46-50 | 339075 | 158381 |
| 51-55 | 411715 | 158671 |
| 56-60 | 491828 | 152828 |
| 61-65 | 560768 | 137993 |

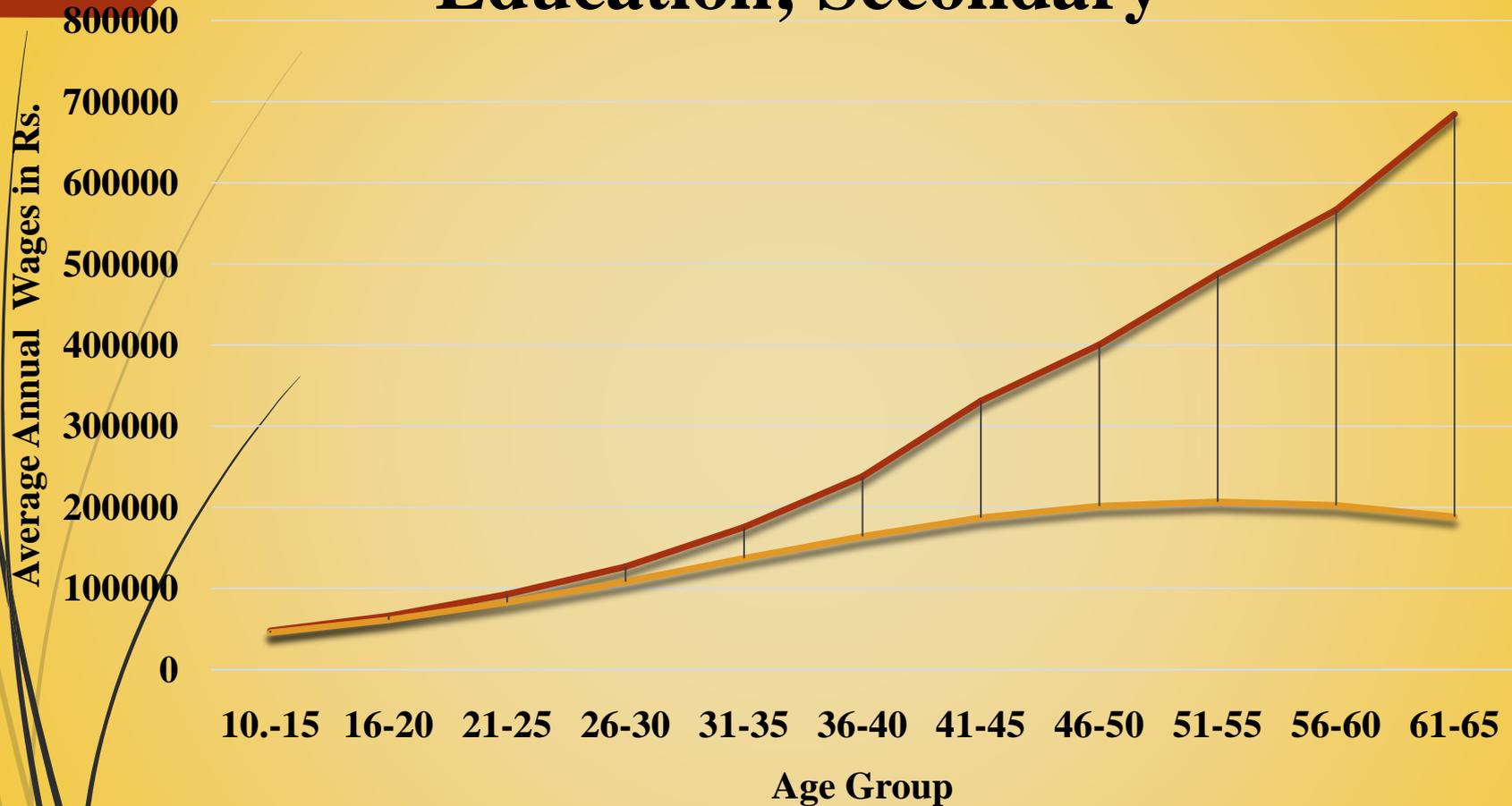
Age Earning Profile By level of Education; Middle



Age Earning Profile by Level of Education – Secondary

| Age Group | Average Annual Wages of Private sector's Secondary qualified People | Average Annual Wages of Public sector's Secondary People |
|-----------|---|--|
| 10.-15 | 47665 | 45442 |
| 16-20 | 65982 | 61241 |
| 21-25 | 92669 | 82663 |
| 26-30 | 126707 | 108196 |
| 31-35 | 175359 | 137100 |
| 36-40 | 237873 | 164028 |
| 41-45 | 331001 | 187216 |
| 46-50 | 400227 | 201546 |
| 51-55 | 487499 | 206729 |
| 56-60 | 566383 | 202422 |
| 61-65 | 684503 | 188146 |

Age Earning Profile By Level of Education; Secondary

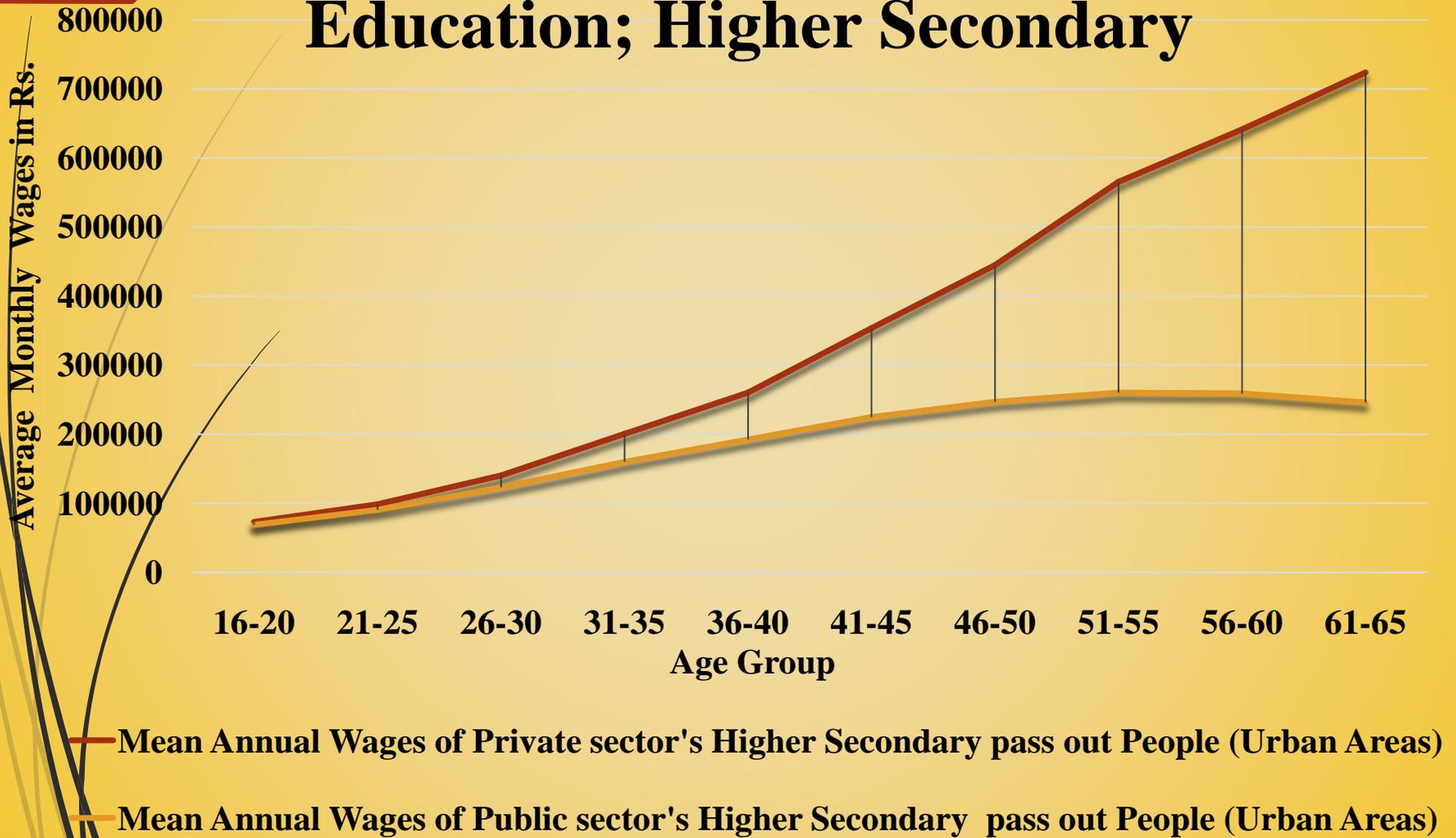


- Mean Annual Wages of Private sector's Secondary pass out People (Urban Areas)
- Mean Annual Wages of Public sector's Secondary pass out People (Urban Areas)

Age Earning Profile by Level of Education - Higher Secondary

| Age Group | Average Annual Wages of Private sector's Higher Secondary qualified People | Average Annual Wages of Public sector's Higher Secondary qualified People |
|-----------|--|---|
| 10.-15 | N/A | 46614 |
| 16-20 | 73065 | 68848 |
| 21-25 | 98666 | 90584 |
| 26-30 | 140309 | 123249 |
| 31-35 | 200671 | 160071 |
| 36-40 | 260247 | 192334 |
| 41-45 | 353621 | 225010 |
| 46-50 | 445047 | 247109 |
| 51-.55 | 565431 | 260326 |
| 56-60 | 641358 | 259138 |
| 61-65 | 723873 | 246029 |

Age Earning Profile By Level of Education; Higher Secondary



Age Earning Profile by Level of Education - Graduation

Average Annual Wages of
Private sector's Graduation
qualified People

Average Annual Wages of
Public sector's Graduation
People

Age Group

10.-15

N/A

53655

16-20

81833

78619

21-25

109727

100078

26-30

153137

136099

31-35

216974

180931

36-40

294386

226731

41-45

374336

266438

46-50

492841

299408

51-55

648178

320401

56-60

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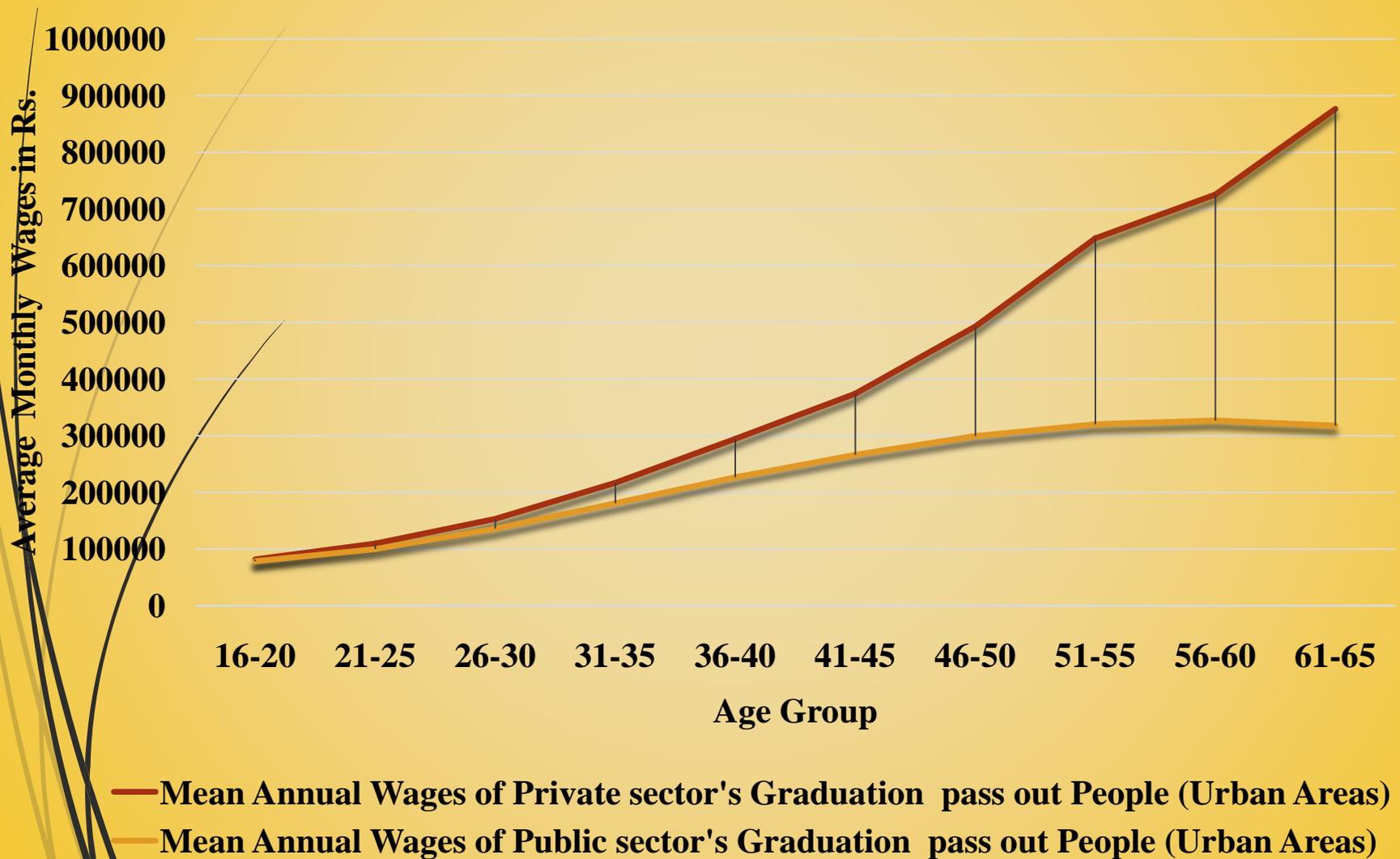
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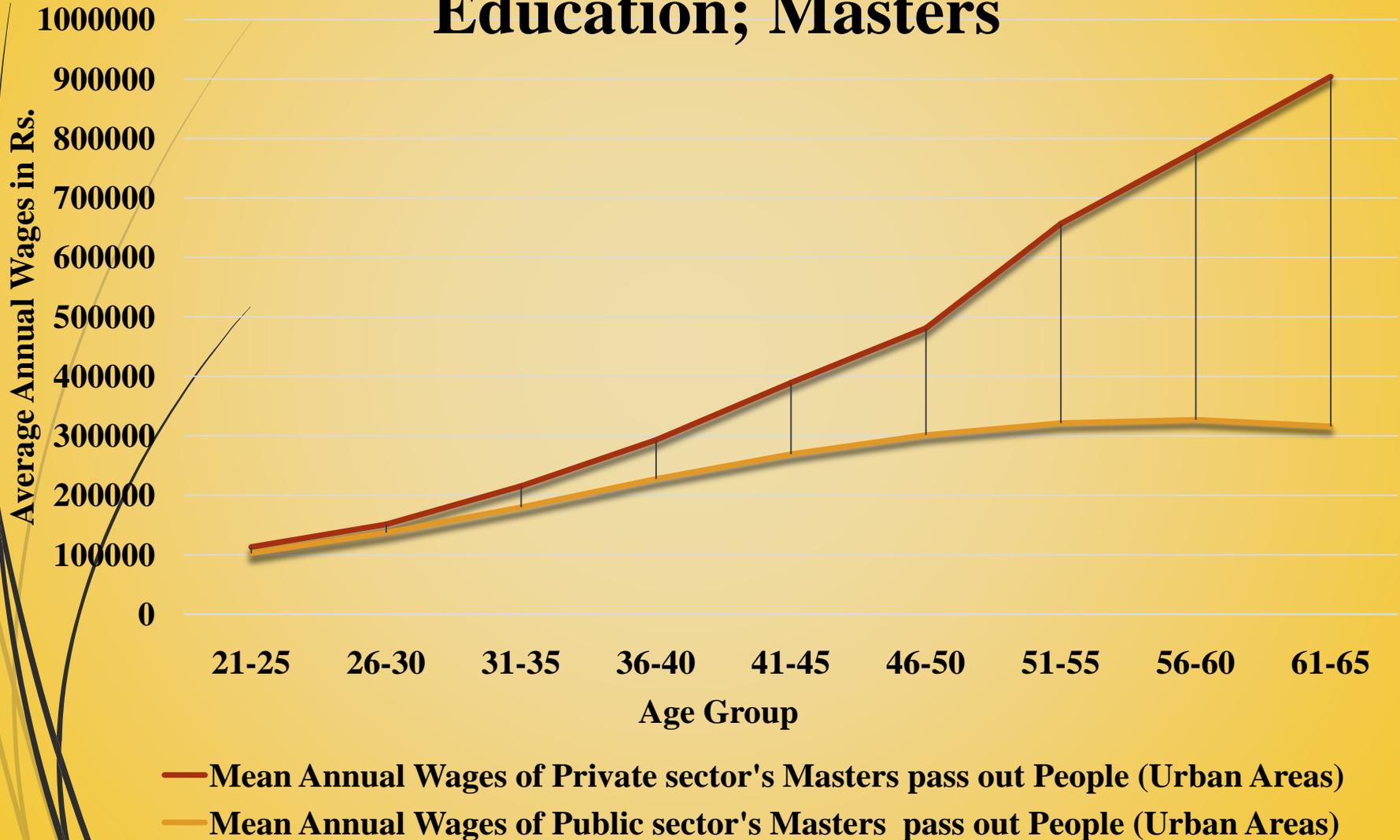
Age Earning Profile By Education Level; Graduation



Age Earning Profile by Level of Education – Masters

| Age Group | Average Annual Wages of Private sector's Masters qualified People | Average Annual Wages of Public sector's Masters People |
|-----------|---|--|
| 10.-15 | N/A | N/A |
| 16-20 | N/A | 78391 |
| 21-25 | 112999 | 102402 |
| 26-30 | 150955 | 137118 |
| 31-35 | 215385 | 179873 |
| 36-40 | 292854 | 227468 |
| 41-45 | 389192 | 269075 |
| 46-50 | 480882 | 301172 |
| 51-55 | 656615 | 321215 |
| 56-60 | 779298 | 327016 |
| 61-65 | 904052 | 315843 |

Age Earning Profile By level of Education; Masters



Internal Rate of Returns – Income Inequality

IRR by Levels of Education

| Education Levels | IRR |
|-------------------------------|------------|
| Up to Primary | 15% |
| Up to Middle | 12% |
| Up to Secondary | 12% |
| Up to Higher Secondary | 14% |
| Up to Graduation | 13% |
| Up to Masters | 16% |

- Table indicates that individuals' up-to Primary level education, who received their education from private schools, earns 15 percent extra as compare to public sector qualified individuals.
- The internal rates of return to private education worked out as: 12 percent for secondary and middle, 14 percent for higher secondary, 13 percent for graduation, and 16 percent for individuals having Master degree.
- The internal rate of returns to private education ranges from 12 to 16 percent.
- The IRR shows the inequality in the earnings that private educational institutes are creating in the urban areas of Pakistan.
- Specifically, it indicates that for a given level of education individuals who got their education from public educational institutes are earnings less wages in labor market as compared to the individuals who got their qualification from private institutions.

- The returns to private schooling are highest for individuals having Master level of education - 16 percent.
- The returns are highest at primary level as well showing that for these two extreme level educations the returns to private education is highest while for rest of the education levels; it remains around 12 to 14 percent.
- The returns show little variation across different levels of education hence this study conclude that the return to private schooling is around 12 to 16 percent in urban areas of Pakistan.
- In other words it can be concluded that individuals qualified from Public sector usually face 12% to 16% wage inequality in the labor market.

Conclusion and Policy Recommendations

- From the Age Earning Profiles for six different levels of educations and internal rate of returns (IRR) it can be concluded that in the urban areas of Pakistan individuals who qualified from private sector gets more wages in the labor market due to their extra skills and sound academic backgrounds as compare to the individuals who received their degree from public institute.
- IRR shows that returns for private schools are 12 to 16 percent higher. The substantially higher IRR reflects the wage inequality that individuals who received their qualification from public Educational Institutes faced in the labor market.
- The role of private sector in delivering the quality education cannot be ignored.

- Private sector in Pakistan is playing a significant role in the delivery of quality education to the mass of population
- But this is also creating inequality in the labor market however this is only due to the inefficiency of public sector in the delivery of quality education.
- The inequality prevailing in the labor market is hence nothing but the failure of government policies.
- There is a need of the time that Government should overcome the inefficiencies prevailing in the delivery of quality education.



Thank you. . .

