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**What are the
characteristics of the
employers of the low
paid in Australia?**

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Mavromaras, What are the
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the low paid in Australia ?
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Executive Summary

This report examines the distribution of low paid employees between Australian firms and provides profiles of firms according to the percentage of their employees earning low wages. We refer to low pay as earning below \$12 per hour. The \$12 per hour cut-off point approximates the Federal Minimum Wage which stood at \$11.80 in 2004. The study is based on data from the 2004 Survey of Employee Earnings and Hours (SEEH).

We found that the average firm, not weighted by employment size, paid 6.7 per cent of its employees less than \$12 an hour. If we assume that casual wages include a 25 per cent loading in lieu of holiday and sickness benefits, this figure rises to 13.6 per cent. However, averages are misleading as the distribution of low-wage employees across firms is very skewed. The vast majority of firms, approximately 80 per cent, employed no workers below \$12 per hour with just 20 per cent of firms accounting for all low-wage employment.

11.4 per cent of firms were found to pay more than half their workforce less than \$12 per hour, after adjusting for the casual loading. This implies that more than 95,000 firms in Australia (of the total 840,000 firms) paid the majority of their staff an hourly rate of below \$12. The data also indicates that substantial numbers of casual employees were either earning a loading of well below 25 per cent or were having their loadings applied to a rate well below \$12 per hour.

Employers with a majority of low paid employees were found to be more heavily concentrated in Retail trade; Construction; Property and business services; Accommodation, cafes and restaurants; and Manufacturing. Collectively, these industries accounted for 75 per cent of all employers with a majority of low paid employees. With the exception of Construction, service-sector employers with a heavy reliance on casual labour were most likely to pay more than 50 per cent of their workforce less than \$12 per hour. With respect to firm size, an estimated 90 per cent of all employers with a majority of low paid employees had less than twenty staff.

In terms of location, over 14 per cent of firms in Queensland paid more than half their workforce less than \$12 per hour compared to approximately 11 per cent in NSW, Vic, South Australia and Tasmania. The concentration of such firms was found to be much lower in Western Australia, Northern Territory and ACT.

Multivariate regression analyses confirmed that employers with a majority of low paid employees were more likely to be small firms employing a disproportionate share of casual labour. The analyses also finds that these employers were more likely to be located in industries with a smaller proportion of labour costs in turnover (possibly because of high material costs) and where there were relatively high rates of businesses recording a loss. In addition, substantial regional differences remain in the presence of industry controls, indicating that State level differences in the incidence of low paying employers cannot be fully accounted for by the other factors

1. Background and Introduction

Prior to determining the new federal minimum wage for 2006, the Australian Fair Pay Commission commissioned the Melbourne Institute of Applied Economic and Social Research to provide a background report on the characteristics of employers of the low paid in Australia. This report, which is the outcome of this request, provides estimates of the number of employers of the low paid operating in the Australian economy during the year 2004 and assesses the extent to which such employers tend to be more heavily concentrated within certain industries, regions and employment-size bands. It also identifies the firm- and industry-level characteristics of employers of the low paid within a multivariate framework. This work builds on recent research conducted by the Melbourne Institute that examined the personal and household characteristics of low-waged workers (see McGuinness, Freebairn and Mavromaras, 2006).

While much is assumed with respect to the principal characteristics of employers of the low paid, to date, no serious attempt has been made to provide objective data on the matter. This paucity of evidence mostly reflects a lack of accessible plant-level data within Australia.

A lack of information on employers of the low paid is not unique to Australia. While the flurry of research activity that accompanied the introduction of the national minimum wage in the UK in 1998 did examine the employment implications for low-wage workers generally (Stewart, 2001; Dickens and Manning, 2002) and within particular industries (Machin and Wilson, 2001), very limited attention was attributed to employers. The one exception to this was a study by Forth and Millward (2001) who, using data from the 1998 Workplace Employee Relations Survey, found that on average, employers of the low paid had higher densities of part-time staff, were smaller, were domestically-owned, operated in uncompetitive markets and were non-unionised.

The rest of the report is organised as follows. Section 2 describes the data and methods to be used together with our definitions of low wages and employers of the low paid. Section 3 presents data on the average densities of low-wage employees within workplaces by industry, firm size and region. Section 4 reports the number of employers of the low paid, as defined by us and presents their distribution by industry, firm size and State. A probit model of the probability of being an employer of the low paid is

estimated using both firm- and industry-level data. The results from this regression are given in section 5. Finally, section 6 provides a summary and conclusions.

2. Data and Methods

Data for this study is derived from the 2004 Survey of Employee Earnings and Hours (SEEH) which is carried out on a biennial basis by the Australian Bureau of Statistics (ABS). The SEEH collects information on approximately 9,000 non-agricultural employing businesses and, after weighting, the data reflects the structure of employment within the Australian economy. Both part-time and full-time employees are included, but information on owner/managers and junior employees are excluded for this study. The 9,000 management units in the sample have been weighted up to reflect the full Australian population of 837,078 non-agricultural employing¹ management units ('employers').

Three low-wage thresholds are considered. These are hourly rates of \$12, \$15 and \$17. \$12 an hour approximates the federal minimum wage prevailing in May 2004. For this study, an enterprise is defined as being an employer of the low paid if more than 50 per cent of its employees are paid at or below the designated low-wage threshold. In most of our descriptive analysis, we use the \$12 threshold and limit our discussion of the other thresholds to cases where the contrast is illuminating. All wages relate exclusively to ordinary-time earnings. To account for the absence of sick leave and holiday pay, casual workers generally receive a loading on their hourly wage rate of between 15 to 50 per cent. Accordingly, we have adjusted casual workers hourly pay by a factor of 0.8. For comparative purposes however, we also present the unadjusted wage rates in some instances.

Since the SEEH dataset is drawn from a sample of management units, and within these units a sample of employees, our estimates are subject to sampling error.² These errors are not easy to deduce but future work could present confidence intervals based on bootstrapped standard errors.

¹ Employing means having at least one employee.

² The SEEH data set is sampled on Management Unit (MU). This is close to but not the same as workplace. This design does not sample all MUs within the same employer parent, so we cannot aggregate beyond the MU level. After an MU is chosen, the ABS selects 1 in 2 employees in MUs under 10 employees, 1 in 6 for MUs 11-50 employees, 1 in 8 for 51 to 200 employees, 1 in 10 for 201 to 1000 employees, and 1 in 20 for 1001 to 3000 employees.

3. Percentage of low-wage employees per employer ('low-wage density')

This section reports the proportions of low-wage employees per employer averaged across all employers, both for Australia as a whole and by industry, employer size and State.³ We call this a 'low-wage density'. It is important to stress, that this is not the average percentage of low-wage employees. It is a simple average of low-wage percentages in each management unit. It is not weighted by employer size. Since about 99 per cent of all employers are small- or medium-size enterprises (SME) employing between 1 and 199 persons, these densities predominantly reflect the SME situation. The overall incidence of low-wage employment within Australia is given in McGuinness, Freebairn and Mavromaras (2006).

Table 1 gives the average low-wage densities across employers for each low-wage threshold, both before and after adjustments have been made for the casual loading. Dealing first with the unadjusted figures, the average low-wage density at \$12 per hour was 6.7 per cent. This density rises to 30.2 per cent for \$15 and 50.9 per cent for the \$17 threshold. The relatively steep increase in average density between the \$15 and \$17 cut-off points suggests that the distribution of pay within firms is relatively tightly concentrated within a range of between 25 and 45 per cent above the federal minimum wage.

³ Excluding Agricultural, forestry and fishing.

Table 1: Percentage of low-wage employees per employer (low-wage density), simple average over employers^a

	Low-wage threshold \$12	Low-wage threshold \$15	Low-wage threshold \$17
Not adjusted for casual loading	6.7	30.2	50.9
Adjusted for casual loading	13.6	42.3	60.5

Note: ^a These averages are not weighted by employer size.

Source: ABS (2004)

After adjusting to remove the estimated loading for casual employees (second row of Table 1), the average density figures increase dramatically for the \$12 threshold to 13.6 per cent. To the extent the appropriate casual loading is 15 per cent, not 25, 13.6 will be an overstatement of the average low-wage density, however to the extent it is 50 per cent it will understate the true low-wage density.

Figures 1 to 3 present estimates of low-wage density levels across all employers after adjustment is made on casual wages to remove the estimated casual loading. Kernel density charts are similar to histograms in that they show the distribution of employing firms with different proportions of low-wage employees. They are especially useful for illustrating continuous variables such as low-wage densities. However, since they involve an artificial ‘smoothing’ process, they should not be read literally but interpreted as showing the relative preponderance of different x-axis variables (see Appendix A for further details).

That said, according to Figure 1, the vast majority of firms pay all or most workers more than \$12 per hour with a further small proportion of firms employing most or all employees at or below \$12 per hour. Thus, it would seem that employers are more likely to engage either all or none of their workers below a particular wage level than to engage them across a range of scales; however, this pattern varies considerably when the data is disaggregated by industry. The same pattern is also observed when Figure 1 is produced for the unadjusted hourly wage distribution.⁴

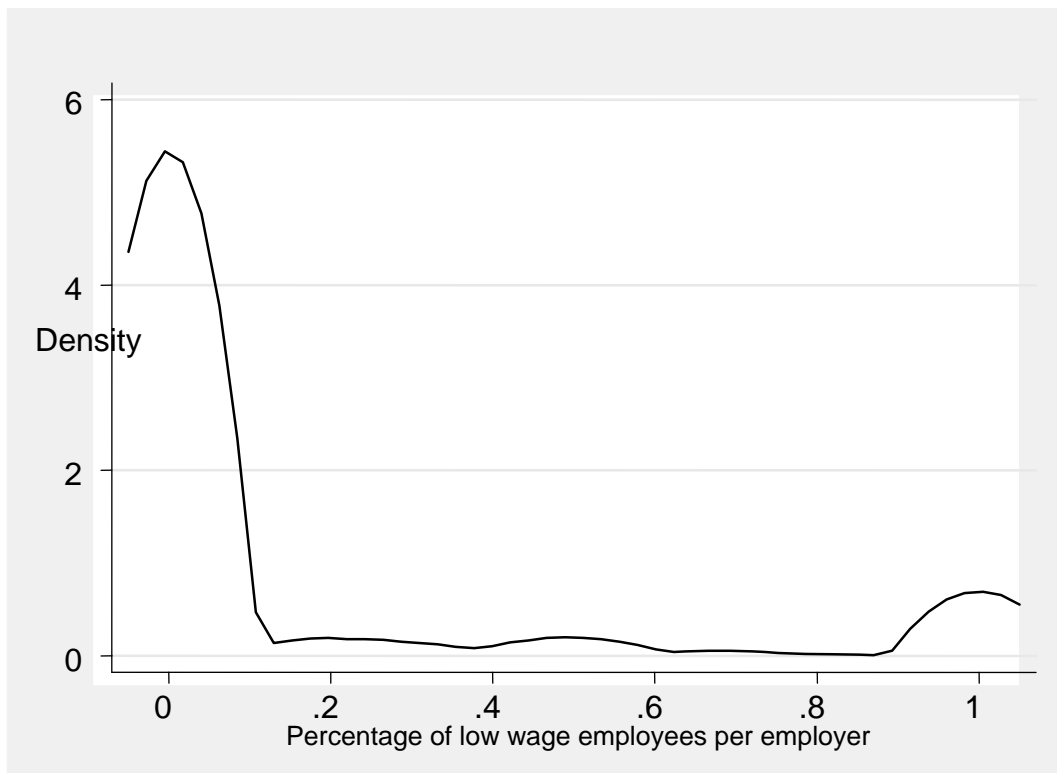
Figure 2, which presents the same distribution for the \$15 threshold, shows that the proportion of firms employing no, or a very low proportion of, workers at or below the threshold rate declines considerably. On the other hand, the proportions employing all or most of their employees at \$15 per hour or less increased significantly. Relative to

⁴ The adjusted and unadjusted charts are not directly comparable as the width around each observation will be different across the two distributions as it is chosen by stata to some optimal level.

Figure 1, the data in Figure 2 suggests that as the hourly rate increases from \$12 to \$15 per hour, firms are more likely to move from a low-wage density of approximately zero to that of approximately one, as opposed to any intermediate range with only a small increase in the proportion of firms grouped around the 0.5 point, which is again consistent with the view that wage levels within enterprises tend to be relatively tightly distributed.

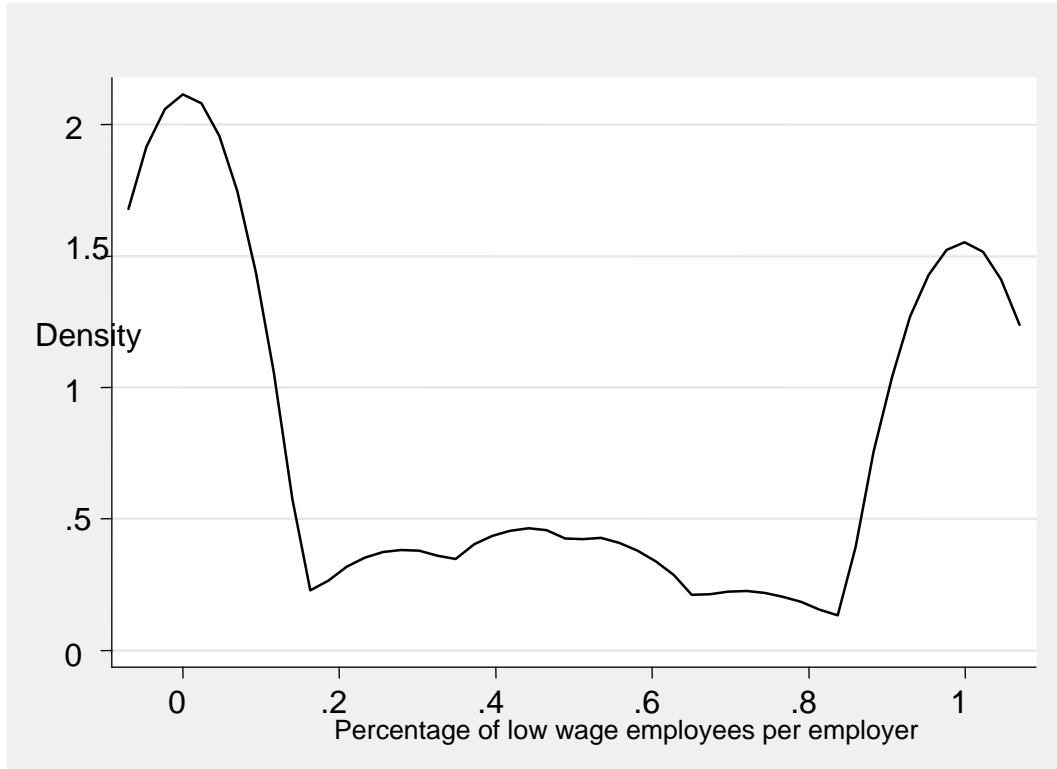
The \$17 per hour low-wage threshold density is given in Figure 3. Using this definition of low wages, the majority of enterprises had a low-wage density level ranging from between 0.8 and 1. Little change is detected at the 0.5 modal point suggesting that, relative to the \$15 cut-off, most of the movement into the high density grouping came from enterprises paying a very low proportion of their workforce at or below \$15 per hour.

Figure 1: Kernel Density for \$12 low-wage threshold (adjusted for casual loading)



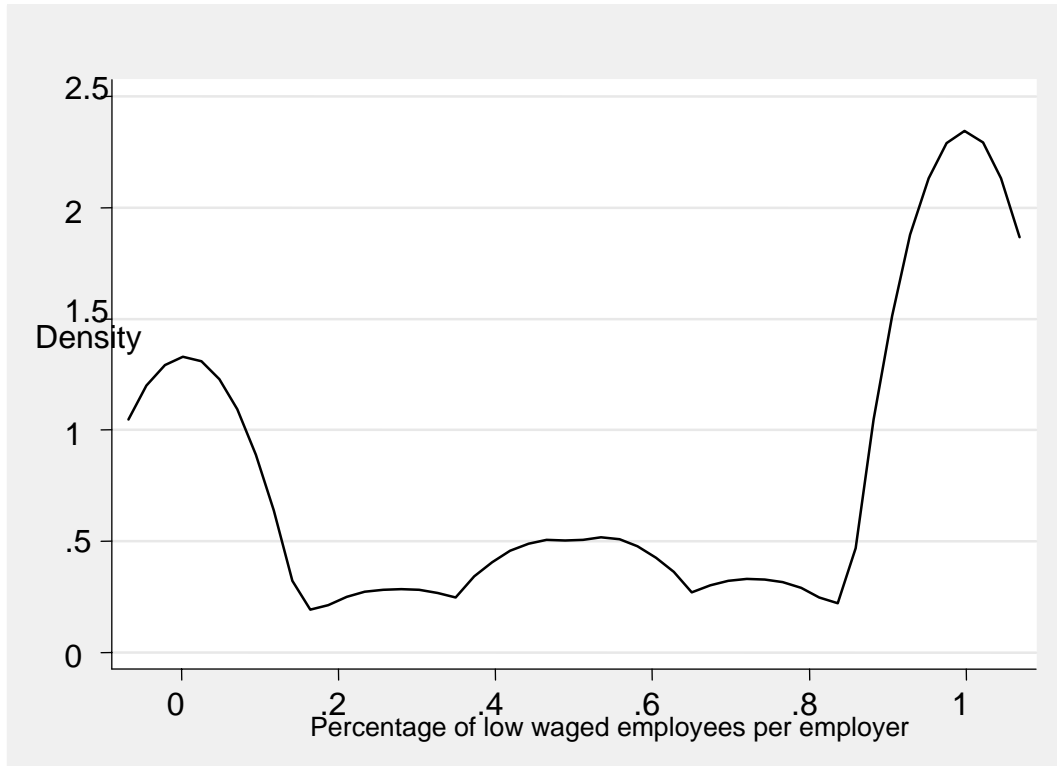
Note: ^a These averages are not weighted by employer size. For further information on kernel densities see Appendix A.
 Source: ABS (2004)

Figure 2: Kernel Density for \$15 low-wage threshold, (adjusted for casual loading)



Note: ^aThese averages are not weighted by employer size. For further information on kernel densities see Appendix A.
Source: ABS (2004)

Figure 3: Kernel Density for \$17 low-wage threshold, (adjusted for casual loading)



Note: ^aThese averages are not weighted by employer size. For further information on kernel densities see Appendix A.
Source: ABS (2004)

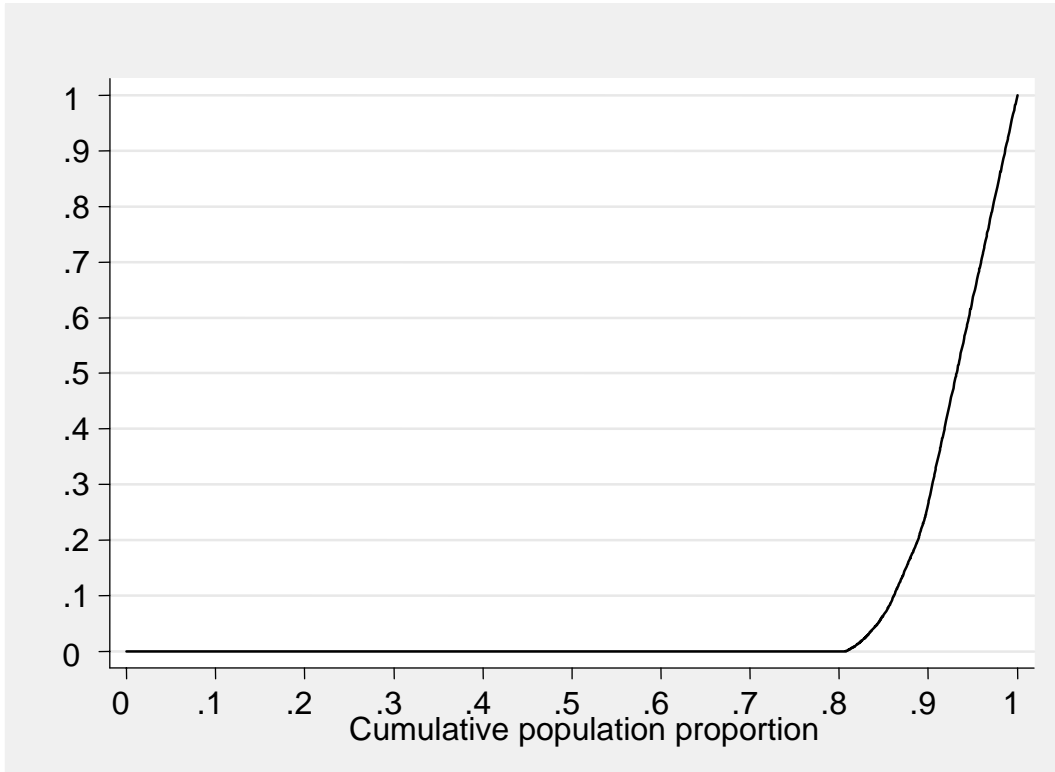
The distribution of low-wage densities across employers is also illustrated by Lorenz curves. Lorenz curves show the cumulative frequency of firms ranked according to their low-wage density. Taken as a whole these curves illustrate how evenly (or unevenly) low-wage employment is distributed across employers. If all employers had the same low-wage density, the Lorenz curve would be a 45 degree '∕'-shaped line. This 45 degree line is called the line of equality. If one employer accounted for all low-wage employees, then the Lorenz curve would be a '⌋'-shaped curve.

Figure 4 gives the Lorenz curve for low-wage densities at the \$12 per hour low-wage threshold. It indicates that approximately 80 per cent of employers do not employ any workers below this rate, with 20 per cent of employers accounting for all employers of the low paid. The slope of the Lorenz curve is quite steep and indicates that just 10 per cent of firms account for over half of the entire low-wage distribution. Most of these enterprises are likely to be almost entirely low-wage, although it is not possible to derive an exact proportion from the graph. As we progress to the \$15 and \$17 thresholds, the proportion of firms with zero low-wage employees falls to approximately 45 and 30 per cent respectively and the shape of the Lorenz curve also becomes closer to the line of equality (Figures 5 and 6). The Lorenz curve for the \$17 low-wage threshold indicates that the distribution of densities is relatively uniform across the 70 per cent of firms paying this wage.

This high level of equality as the \$12 threshold is confirmed by the Gini coefficients. Gini coefficients measure the area between the Lorenz curve and the 45 degree line of equality⁵. The greater is this area, the more unequal is the distribution. The Gini at the \$12 cut-off point was 0.908 indicating that the distribution of low-wage densities highly polarised at this wage rate (as we would expect).

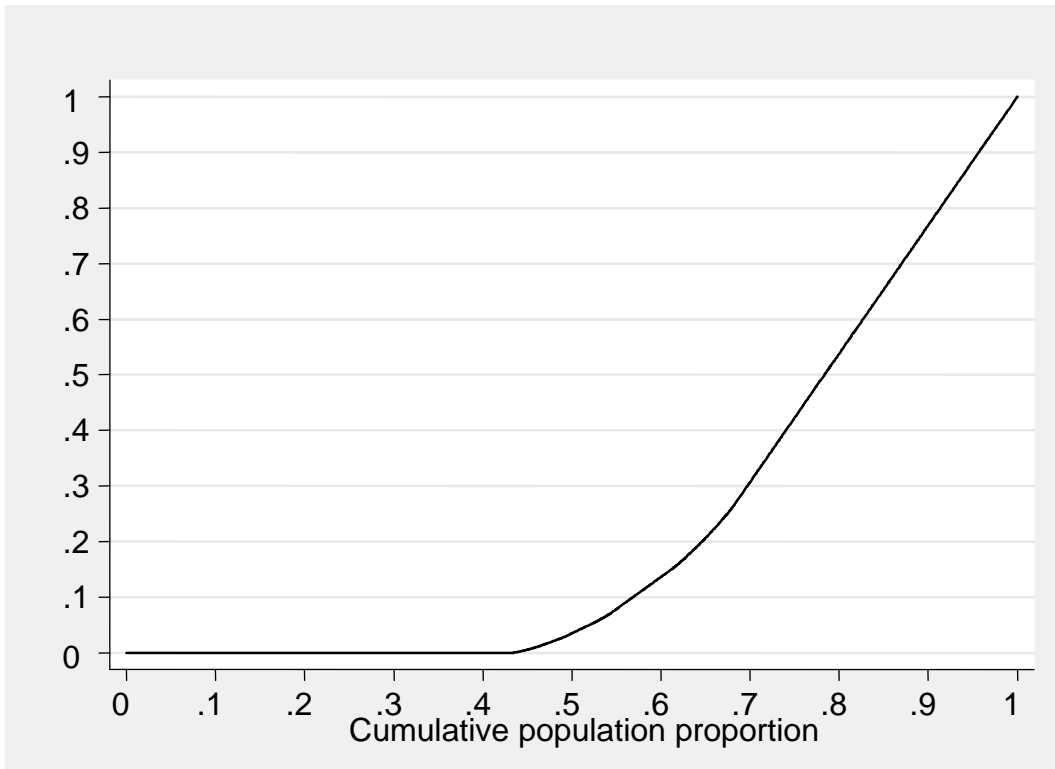
⁵ It was not possible to apply weights when calculating the Gini coefficient and, as a consequence, the statistic is likely to be biased towards larger firms given that these are generally over-sampled by the ABS.

Figure 4: Lorenz for \$12 low-wage threshold, (adjusted for casual loading)



Source: ABS (2004)

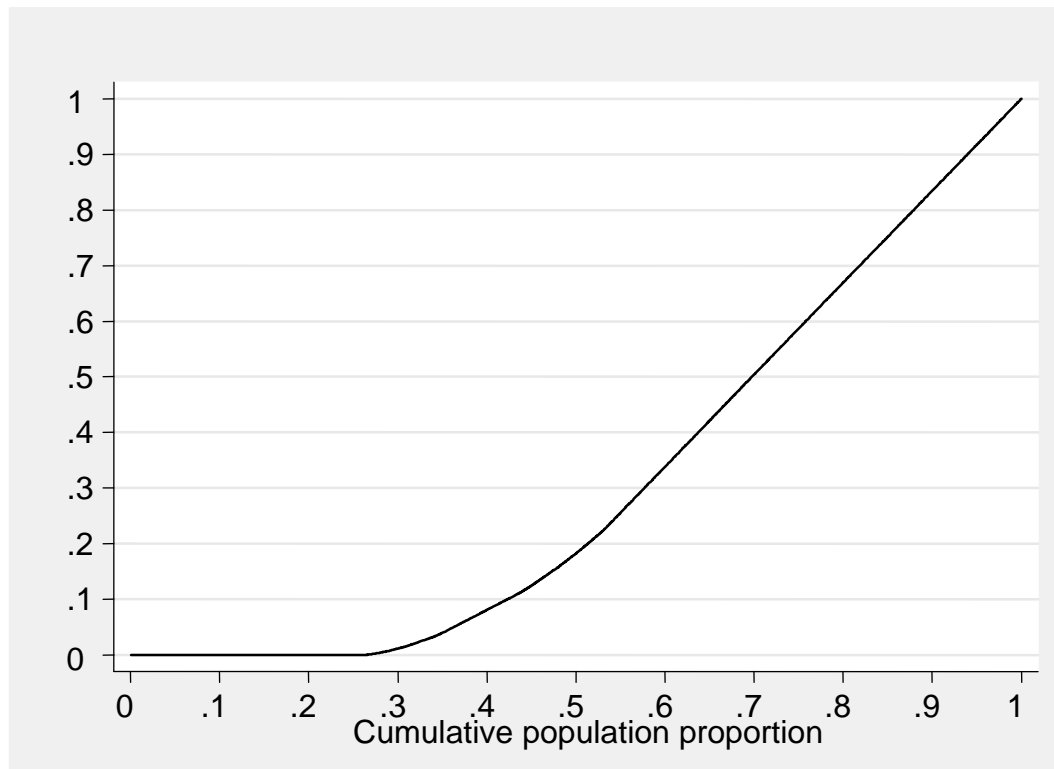
Figure 5: Lorenz for \$15 low-wage threshold, (adjusted for casual loading)



Note: ^a These averages are not weighted by employer size. For further information on kernel densities see Appendix A.

Source: ABS (2004)

Figure 6: Lorenz for \$17 low-wage threshold, (adjusted for casual loading)



Note: ^a These averages are not weighted by employer size. For further information on kernel densities see Appendix A.

Source: ABS (2004)

Table 2 presents average low-wage densities (adjusted for casual loadings) by industry. Industries with the highest average low-wage densities were Communications; Accommodation, cafes and restaurants; Personal and other services; Retail trade and Manufacturing. Enterprises in Mining, Government administration and defence, Electricity, gas and water supply and Wholesale trade had the lowest densities. As expected, average density levels are much lower in the public sector. As the low-wage cut-off increased, not surprisingly, the low-wage densities increased substantially.

One minor exception to this rule is Construction. While Construction had a relatively high low-wage density at the \$12 threshold, it was less than average at the \$17 threshold suggesting a more polarised wage dispersion than the national average.

Table 2: Percentage of low-wage employees per employer (low-wage density), simple average over employers by Industry (adjusted for casual loading)

Industry	Low-wage threshold \$12	Low-wage threshold \$15	Low-wage threshold \$17
Agriculture, forestry and fishing	-	-	-
Mining	2.0	14.8	20.9
Manufacturing	17.0	40.5	55.2
Electricity, gas and water supply	4.0	16.5	29.7
Construction	16.1	28.2	50.6
Wholesale trade	3.2	39.6	56.0
Retail trade	17.0	61.1	79.0
Accommodation, cafes and restaurants	27.1	73.1	86.8
Transport and storage	15.6	43.2	57.7
Communication services	27.8	71.1	78.2
Finance and insurance	4.1	30.2	47.2
Property and business services	6.5	30.7	47.4
Government and defence	3.3	20.9	32.3
Education	9.0	36.0	44.5
Health and community services	8.9	33.9	54.1
Cultural and recreational services	16.3	42.3	67.6
Personal and other services	18.7	55.1	68.9
Private Sector	13.8	43.4	60.7
Public Sector	3.4	37.4	46.4
Total	13.6	43.3	60.5

Note: ^a These averages are not weighted by employer size.

Source: ABS (2004)

The Kernel density charts and Lorenz curves of the low-wage densities for the \$12 low-wage threshold by industry are given in Appendix B, Figures B1 to B36. The charts for the \$15 and \$17 cut-offs are of less interest since these will generally follow the pattern of the \$12 in much the same way that Figures 2 and 3 were related to Figure 1.⁶

Of more interest are the distributions within those industries in which firms tend to employ a higher proportion of low-wage workers. For instance, within the Accommodation, cafes and restaurants industry, the Lorenz curve, Figure B14, indicates that just over 60 per cent of employers employed no low-wage worker compared with the national average of about 80 per cent. The situation is similar for Communications.

The Gini coefficients (Appendix C, Table C1), which indicate the degree of concentration of employers of the low paid among employers, indicate that industries with low densities of employers of the low paid, such as Finance and insurance, Electricity, gas and water supply and Mining have the most uneven distributions. So

⁶ Results are available from the authors.

while there are few low-wage employees in these industries, those that exist tend to be concentrated among a small percentage of employers.

Table 3 details the average low-wage densities according to the employment size of employers. The average low-wage density is highest within the smallest-size band. However, it is also relatively high for firms in the 50-99 employment category. As the low-wage threshold moves from \$12 to \$15 and \$17 an hour we observe that, as expected, the wages within firms, on average, become more dispersed as employment size increases. However, once more the 50-99 grouping appears to be the exception with wage levels less dispersed relative to the 20-49 grouping. Potential factors explaining this apparent anomaly are discussed more fully in section 4 of the report.

Some interesting information is contained within the employer-size density distributions, which again are considered for the \$12 threshold only (Figures B37 – 48). The Kernel density for firms in the 1 – 19 employee-size range is similar to the economy generally. This is to be expected given that these firms make up the vast majority of the population being examined. Enterprises in the 20 – 49, 100 – 499 and 1000+ are similarly distributed with the vast majority of firms employing few or no low-wages workers, with further small, but significant, proportions of firms engaging between 10 and 20 per cent of their workforce at below \$12 per hour. The distribution of low-wage employment amongst firms in the 50 – 99 category is again distinct, with clustering occurring around the zero, 10 and 30 per cent points suggesting that firms in this size band tend to be more low-wage than those in other size-bands. The Lorenz curves are somewhat less informative with 20 per cent of firms typically accounting for all low-wage densities and, as a consequence, little variation is apparent from the Gini coefficients (Appendix C, Table C2).

Table 3: Percentage of low-wage employees per employer (low-wage density), simple average over employers^a by Employer Size (adjusted for casual loading)

Employer Size (number of employees)	Low wage threshold \$12	Low wage threshold \$15	Low wage threshold \$17
<20	14.5	44.6	61.7
20 – 49	6.5	33.1	50.6
50-99	7.3	35.2	53.8
100 – 499	4.7	25.7	42.1
500 – 999	3.4	17.8	30.7
100+	2.3	12.8	23.3
All	13.6	42.3	60.5

Note: ^a These averages are not weighted by employer size.

Source: ABS (2004)

Finally, average firm-level low-wage densities by State are given in Table 4. There are substantial variations in the data, with firms in ACT and Northern Territory having, on average, much lower rates of low-wage employment. Conversely, relative to the national average, firms in Queensland tend to employ relatively larger proportions of workers at below \$12 per hour. These regional variations persist as the wage cut-off points are raised, for instance, while, on average, approximately 30 per cent of employees in Queensland, South Australian and Tasmanian firms earn more than \$17 per hour, the comparable figure for the remaining States is over 40 per cent.

With respect to the density distributions presented in Figures B49 to 64, while NSW and Victoria are very close to national distribution (Figure 1), Queensland and Tasmania appear to have somewhat larger proportions of firms engaging up to 50 per cent of the workforce at below \$12 per hour. Somewhat fewer variations were apparent from the Lorenz curve, however, firms in Queensland and Tasmania appeared more likely to pay at least some of their employees less than \$12 per hour. This observation was confirmed by the state level Gini coefficient in Appendix C, Table C3

Table 4: Percentage of low-wage employees per employer (low-wage density), simple average over employers^a by State (adjusted for casual loadings)

Region	Low wage threshold \$12	Low wage threshold \$15	Low wage threshold \$17
New South Wales	12.6	38.3	56.9
Victoria	13.2	40.5	57.2
Queensland	17.8	51.7	67.8
South Australia	12.9	50.9	69.6
Western Australia	11.1	42.3	56.9
Tasmania	14.7	50.3	74.2
Northern Territory	10.3	39.3	54.2
Australian Capital Territory	6.6	42.2	55.4
Total	13.6	42.3	60.5

Note: ^a These averages are not weighted by employer size.

Source: ABS (2004)

4 The Distribution of employers of the low paid

The previous section examined the average low-wage density across employers. In this section, we examine the issue from a slightly different perspective. We examine the distribution of employers of the low paid, which are defined as employers who pay more than half their employees at or below the low-wage threshold. In addition to this, we check the sensitivity of the analysis to the casual loading, by making explicit comparisons between distributions with and without the casual loading adjustment discussed in Section 3.

Table 5 shows that the percentage of firms categorized as employers of the low paid rises from 5.2 to 11.4 per cent after removing our estimated 25 per cent casual loading.⁷ To put this in context, the ABS estimate that in 2004 there were 837,078 employing enterprises in Australia, and of these, more than 95,000 paid the majority of their staff less than \$12 per hour after the casual loading was taken into account.

Table 5 also shows the percentages of employers within each industry that have been identified as low-wage for both the unadjusted and adjusted wage distributions. Dealing first with the non-adjusted industry shares which, as well as being consistent with the previous section, correspond with the findings of the McGuinness, Freebairn and Mavromaras (2006) study of employee level data using the 2004 wave of the Household, Income Dynamics of Australia (HILDA) database. The highest

⁷ Since our data set is an average of all employers, not weighted by employees, these figures will differ from data based on employees. Since our data set gives equal weight to micro businesses and large businesses, our averages will predominately reflect the SME situation.

concentrations of employers of the low paid were found in the Personal and other services, Construction, Accommodation, cafes and restaurants and the Retail trade industries, each of which were identified as low-waged in the context of either the full-time or part-time employee distributions, or both (McGuinness, Freebairn and Mavromaras (2006)). Consistent with the employee study, few employers in the Mining; Electricity, gas and water; and the public sector were low-wage.

Not surprisingly, the impact of the adjustment for the casual loading is most pronounced in industries with a high concentration of casual workers. For instance, the percentage of employers paying the majority of their workforce less than \$12 per hour increased by almost 1000 per cent in Cultural and recreational services, approximately tripled in Accommodation, cafes and restaurant, Manufacturing, Personal and other services and, Transport and storage and more than doubled in Retailing and Health and community services. The large increases in the Education and Communication services industries are slightly less intuitive, but are likely to relate to certain categories of staff, for example, certain types of call-centre staff in the Communication industry. Table 5 also confirms the low usage of casual contracts within the public sector and Construction, Mining, Electricity, gas and water, and Finance and insurance.⁸

By applying the rates in Table 5 to the estimated population of employers in 2004 by industry which is given in Appendix D, Table D1 and is taken from ABS published data,⁹ we can estimate the distribution of employers of the low paid by industry. Estimates could not be provided for either the Agriculture, forestry and fishing or Government, administration and Defence industries. As a consequence, the total number of low-paying businesses presented in Table 6, based on both the unadjusted and adjusted wage distributions, will be under-estimated by factors of approximately 7,000 and 14,000 enterprises respectively.

With respect to the unadjusted distribution, the Construction and Retail trade industries account for more than half of all employers of the low paid, with the Personal and other services, Accommodation, cafes and restaurants, and Manufacturing industries each accounting for approximately 9 per cent of the total respectively. Again the pattern changes somewhat within the adjusted distribution, with the Construction industry

⁸ Contract and piece rate workers are not classified as employees.

⁹ ABS, Catalogue number 8161.0.55.001

becoming much less dominant. Nevertheless, the Retail trade; Construction; Property and business services; Accommodation, cafes and restaurants; and Manufacturing industries collectively accounted for 75 per cent of all employers of the low paid in 2004. In fact, the majority of all employers of the low paid are in the service industries. Thus, to conclude, with the exception of Construction, service-sector employers with a heavy reliance on casual labour are likely to be most heavily effected by the introduction of a universal federal minimum wage.

Table 5: Percentage of employers of the low paid^a by Industry

Industry	Not adjusted for casual loadings	Adjusted for casual loadings
Agriculture, forestry and fishing	-	-
Mining	0.0	1.4
Manufacturing	5.7	15.7
Electricity, gas and water supply	2.8	3.3
Construction	10.1	15.1
Wholesale trade	2.0	2.0
Retail trade	6.5	14.0
Accommodation, cafes and restaurants	8.0	21.8
Transport and storage	4.7	15.0
Communication services	0.2	20.8
Finance and insurance	2.1	2.1
Property and business services	0.9	4.2
Government and defence	1.5	2.0
Education	3.2	9.0
Health and community services	2.4	5.7
Cultural and recreational services	1.5	14.9
Personal and other services	10.2	16.0
Public sector	5.2	11.5
Private sector	0.9	1.3
Total	5.2	11.4

Note: ^a For this table, a low-wage employer is defined as one paying 50 per cent or more of its employees a wage of \$12 per hour or less.

Source: ABS (2004)

Table 6: Distribution of employers of the low paid^a by Industry

Industry	Not adjusted for casual loadings		Adjusted for casual loadings	
	Number	Percentage distribution	Number	Percentage distribution
Agriculture, forestry and fishing	-	-	-	-
Mining	0	0.0	38	0.0
Manufacturing	3528	9.7	9716	12.1
Electricity, gas and water supply	17	0.0	20	0.0
Construction	11456	31.4	17127	21.3
Wholesale trade	936	2.6	936	1.2
Retail trade	8200	22.5	17662	21.9
Accommodation, cafes / restaurants	3147	8.6	8577	10.7
Transport and storage	1757	4.8	5606	7.0
Communication services	16	0.0	1683	2.1
Finance and insurance	1086	3.0	1086	1.3
Property and business services	1541	4.2	7190	8.9
Education	220	0.6	619	0.8
Health and community services	1176	3.2	2793	3.5
Cultural and recreational services	260	0.7	2578	3.2
Personal and other services	3109	8.5	4877	6.1
Total	36448	100.0	80508	100.0

Note: ^a For this table, a low-wage employer is defined as one paying 50 per cent or more of its employees a wage of \$12 per hour or less.

Source: ABS (2004)

The concentration of employers of the low paid within various business-size bands is given in Table 7. Two points are immediately obvious. First, the pattern is again non-linear in that the concentration of predominantly employers of the low paid does not decline consistently with employer size. Consistent with Section 3, employers in the 1 to 19 and 50 to 99 employee-size band are most likely to be low-wage. These observations are not wholly surprising given that the recent employee study by McGuinness, Freebairn and Mavromaras (2006) found that whilst the incidence of below minimum wage employed declined linearly with firm size amongst full-time employees, it was non-linear for part-time workers with the data following a similar pattern to that of Table 6. Thus, it is likely that the inclusion of part-time employees in the density calculations is largely responsible for the slight non-linearity in the data.

The second observation is that the adjustment for the casual loading has the greatest impact within the 1 – 19 and 20 – 49 employee-size bands. We cannot quantify the number of employers of the low paid within each size band as ABS do not publish data disaggregating the 2004 population of employing business by the size categories shown in Table 7. In fact, a breakdown is only available for the 1 to 19, 20 to 199 and 200 plus employee groupings, which do not correspond well with our data. Nevertheless, from the published information we know that 90 per cent of the 837,078 firms were in the 1

to 19 employee grouping which equates to 92,664 low-waged employers within this category and, by simple subtraction, 2,321 amongst firms employing 20 or more. Clearly, a more detailed breakdown of the 1 to 19 category is desirable; however, until more disaggregated data by firm size becomes available, we can only guess at the likely nature of the distribution of low-wage employment within these small firms.

Table7: Percentage of employers of the low paid^a by Employer Size

Employer Size (number of employees)	Not adjusted for casual loadings	Adjusted for casual loadings
0 – 19	5.6	12.3
20 – 49	0.7	3.0
50 – 99	2.7	3.8
100 – 499	1.1	2.0
500 – 999	1.3	1.5
1000 +	0.2	0.6
All Firms	5.2	11.4

Note: ^a For this table, a low-wage employer is defined as one paying 50 per cent or more of its employees a wage of \$12 per hour or less.

Source: ABS (2004)

The percentage of employers of the low paid within states is given in Table 8. Within the unadjusted data, much more regional variation is apparent, relative to that observed in the previous section. Victoria, at 6.7 per cent, has a much higher concentration of employers of the low paid relative to the other large states of New South Wales and Queensland. The low-wage employer share is well below the national average in ACT, Northern Territory, Tasmania and Western Australia, with South Australia the only one of the five smaller geographical regions to have an above average concentration.

Very substantial changes occur in the proportions when the data is adjusted for the casual loading. The proportion of employers of the low paid converges substantially across the three largest states and the shares in Tasmania and Western Australia increase substantially. Table 8 indicates substantial variations in the usage of low-waged casual labour across states. A potential explanation for the observed changes lies in differences in the sectoral composition of employment. For instance, both Queensland and Tasmania have higher proportions of Retail trade and Accommodation, cafes and restaurants than Victoria. The extent to which this hypothesis holds can be tested more fully under the multivariate framework on the grounds that, if sectoral influences fully explain state level regional variations, we would expect all state effects to disappear in the presence of industry controls. Table 9 applies the rates to the population data given in Appendix D, Table D2 and it is apparent that the removal of the casual loading

results in substantial changes in the relative importance of both Victoria and Queensland with respect to the overall distribution of employers of the low paid within Australia.

Table 8: Percentage of employers of the low paid^a by State

State	Not adjusted for casual loadings	Adjusted for casual loadings
NSW	5.5	11.0
Vic	6.7	11.1
Queensland	4.7	14.4
South Australia	6.6	11.3
Western Australia	1.3	8.7
Tasmania	4.6	11.0
Northern Territory	4.6	8.2
ACT	0.1	3.1
Australia	5.2	11.4

Note: ^a For this table, a low-wage employer is defined as one paying 50 per cent or more of its employees a wage of \$12 per hour or less.
Source: ABS (2004)

Table 9: Percentage Distribution of employers of the low paid^a by State

Industry	Not adjusted for casual loadings		Adjusted for casual loadings	
	Number	Percentage distribution	Number	Percentage distribution
NSW	16395	37.4	32789	34.5
Vic	14390	32.8	23840	25.1
Queensland	7409	16.9	22698	23.9
South Australia	3655	8.3	6258	6.6
Western Australia	1029	2.3	6888	7.3
Tasmania	722	1.6	1726	1.8
Northern Territory	251	0.6	448	0.5
ACT	11	0.0	338	0.4
Australia	43861	100.0	94985	100.0

Note: ^a For this table, a low-wage employer is defined as one paying 50 per cent or more of its employees a wage of \$12 per hour or less.
Source: ABS (2004)

5 Multivariate Analyses

To determine the likelihood that a firm will be an employer of the low paid we regressed the probability of being an employer of the low paid on a set of employer and industry characteristics using a probit model. For the dependant variable, firms were assigned the value 1 if they were an employer of the low paid (i.e. employers have over 50 per cent of their workers at a wage rate on or below \$12 per hour) and zero otherwise. The model was estimated using the SEEH ABS firm-level dataset, merged with a file containing 2004 industry performance information at 2-digit ANZSIC level. The probit model was, therefore, estimated on a dataset containing basic information on

the firm to which was appended performance level indicators for the firms 2-digit industry combined with state dummies.

At the level of the employer, the model includes information on total employment (logged) and its casual share of total employment. To each record we then append a number of 2-digit industry indicators such as the size of the industry (gross value added), industry wage share (total labour costs as a proportion of total income) and the percentage of firms within the industry that recorded a loss in 2004.

In keeping with the previous analyses, the model was estimated on both the unadjusted and adjusted wage data and the results are given in Table 10. Turning first to the model estimated prior to the adjustment for the casual loading, the results confirm that the likelihood of being low-wage is inversely related to employer size (as measured by number of employees). However, contrary to our bivariate results, the model suggests that, *ceteris paribus*, employers of the low paid tend to have lower concentrations of casual employees. In relation to the industry-level variables, the model indicates that employers of the low paid were less likely to be in sectors that had a high wage share; however, employers of the low paid were more likely to be industries that were highly competitive with relatively tight margins, as proxied by the loss rate. Finally, the probability of being an employer of the low paid was inversely related to industry size indicating that such employers tend to be located within smaller industries. There was little evidence of any significant geographical differences in this model.

The results change significantly when the model is re-estimated on the data with the estimated 25 per cent loading removed from the wage rates of casual workers. As before, employers of the low paid were more likely to have fewer employees with the industry level impacts also remaining stable. However, the casual employment variable is now hugely significant with the opposite sign indicating that employers of the low paid tend to employ a higher proportion of casual labour. Taken together the results from both models suggest that firms employing high proportions of casual workers tend to engage such employees at wage rates that are at or near the federal minimum wage after adjusting for the estimated loading. Following adjustment for the loading, the regional effects become more pronounced with the majority of States having a higher concentration of employers of the low paid relative to ACT which remains statistically inseparable from Northern Territory.

Table 10: Low-wage employer^a Probit Model

	Unadjusted	Adjusted
Employer-level characteristics		
Employment level (logged)	-0.552 (0.057)***	-0.481 (0.042)***
Percentage of employment casual	-0.389 (0.076)***	0.905 (0.053)***
2-digit Industry level characteristics		
Gross Value Added (logged)	-0.306 (0.059)***	-0.090 (0.043)**
Wage share in turnover	-0.696 (0.335)**	-0.643 (0.247)***
% Business recording a loss	0.012 (0.004)**	0.006 (0.003)*
State dummies		
<i>reference ACT</i>		
NSW	1.407 (0.929)	0.778 (0.286)***
Vic	1.527 (0.929)*	0.921 (0.286)***
Queensland	1.447 (0.929)	0.842 (0.286)***
South Australia	1.612 (0.934)*	0.658 (0.298)**
Western Australia	0.505 (0.989)	0.653 (0.262)**
Tasmania	1.424 (0.949)	0.628 (0.295)***
Northern Territory	1.448 (0.977)	0.693 (0.388)
Constant	-1.185 (0.968)	-1.653 (0.359)***
N	5374	5374
Pseudo R2	0.112	0.431
LR chi2(13)	239.53.***	545.25***

Note: ^a For this table, a low-wage employer is defined as one paying 50 per cent or more of its employees a wage of \$12 per hour or less. Standard errors in brackets.

5 Summary and Conclusions

This report examined the distribution of employers of the low paid across all employers in Australia using data from the 2004 SEEH. Prior to adjusting for the casual loading, it was found that, on average, approximately 5 per cent of employers paid more than half of their workforce less than \$12 an hour. We defined these employers as employers of the low paid. However, when we adjusted downwards the hourly wage rate of casual staff for an estimated 25 per cent casual loading, the average low-wage density of firms increased to about 11 per cent.

The data also indicates that, on average, just below two-thirds of employees within firms earn less than \$17 per hour. As the wage cut-off points increased from \$12 to \$15 and \$17 per hour, the pattern of the distribution changed dramatically with the largest proportion of employers paying between 80 and 100 per cent of their employees less than \$17 per hour, and over 70 per cent of employers paying some proportion of their

employees a wage below that rate. The charts also suggest that the wage distribution within the majority of firms tends to be relatively undispersed.

The distribution of low wage densities across industries, employer sizes and States was then examined in the context of the casual-adjusted wage data. In relation to industry, firms in Communications, Accommodation, cafes and restaurants, Retail trade, Personal and other services; Construction; and the Cultural and recreational sectors were found to have the highest average concentration of employees earning below \$12 per hour. With respect to the Construction industry, the Kernel density and Lorenz graphs indicate that the high average low-wage employment share within this industry is due to the existence of a significant group of low-wage intensive firms within the sector.

With respect to employment size, low-wage employment shares were higher amongst employers in the 1 – 19 and 50 – 99 employee-size bands with the graphical analyses indicating that enterprises in the latter size band were more likely to engage at least some of their employees at below \$12 per hour.

Finally, the geographical distribution of employers of the low paid revealed some variation with employers in Queensland and Tasmania displaying the greatest tendency to pay at least some of their employees less than \$12 per hour.

After the removal of the casual loading, it was estimated that 11.2 per cent of employers were low-wage as defined by this study; translating to a total population of more than 95,000 enterprises. The data indicated that the use of casual labour was a significant correlate of this phenomenon. This is confirmed when the data was disaggregated by industry. Those industries tending to rely most on casual labour becoming much more dominant in the distribution of employers of the low paid after the 25 per cent loading was removed. With the exception of Construction, and to a much lesser extent Manufacturing, it was found that service-sector based employers in industries such as Retail trade, Accommodation, cafes and restaurants, and Property and business services with a heavy reliance on casual labour are likely to be most heavily effected by the introduction of a universal federal minimum wage. In fact, the majority of all employers of the low paid were found to be in the service industries.

With respect to firm size, the vast majority of employers of the low paid were in the 1 – 19 employees band with data constraints preventing any further disaggregation of the data.

A large degree of variation was found in the distribution of employers of the low paid by geographical region, with Queensland experiencing the largest increase in the number of low-waged employers after the data was adjusted for casual employment.

Finally, multivariate regression analyses confirmed that employers of the low paid were more likely to be small firms; employing a disproportionate share of casual labour. The analyses also finds that employers of the low paid were more likely to be located in industries with a smaller proportion of labour costs in turnover (possibly because of high material costs) and where there were relatively high rates of businesses recording a loss. In addition, substantial regional differences remain in the presence of industry controls, indicating that State level differences in the incidence of low paying employers cannot be fully accounted for by the other factors.

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Dickens, R. and Manning, A. (2002). “Has the impact of the minimum wage reduced inequality”, Centre for Economic Performance, London School of Economics.

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APPENDIX A

Kernel density estimators belong to a class of estimators called non-parametric density estimators. In comparison to parametric estimators where the estimator has a fixed functional form (structure) and the parameters of this function are the only information we need to store, non-parametric estimators have no fixed structure and depend upon all the data points to reach an estimate. To understand kernel estimators we first need to understand histograms whose disadvantages provides the motivation for kernel estimators. When we construct a histogram, we need to consider the width of the bins (equal sub-intervals in which the whole data interval is divided) and the end points of the bins (where each of the bins start). As a result, the problems with histograms are that they are not smooth, depend on the width of the bins and the end points of the bins. We can alleviate these problems by using kernel density estimators.

To remove the dependence on the end points of the bins, kernel estimators centre a kernel function at each data point. And if we use a smooth kernel function for our building block, then we will have a smooth density estimate. This way we have eliminated two of the problems associated with histograms, but not the problem of bin-width.

More formally, Kernel estimators smooth out the contribution of each observed data point over a local neighbourhood of that data point. The contribution of data point $x(i)$ to the estimate at some point x^* depends on how apart $x(i)$ and x^* are. The extent of this contribution is dependent upon the shape of the kernel function adopted and the width (bandwidth) accorded to it. If we denote the kernel function as K and its bandwidth by h , the estimated density at any point x is

$$\hat{f}(x) = \frac{1}{n} \sum_{i=1}^n K\left(\frac{x-x(i)}{h}\right)$$

where $\int K(t)dt = 1$ to ensure that the estimates $f(x)$ integrates to 1 and where the kernel function K is usually chosen to be a smooth unimodal function with a peak at 0. Even though, as is the case here, Gaussian kernels are the most often used, there are various choices among kernels.

APPENDIX B

Figure B1: Kernel Density for \$12 low-wage threshold, Mining Industry, (adjusted for casual loading)

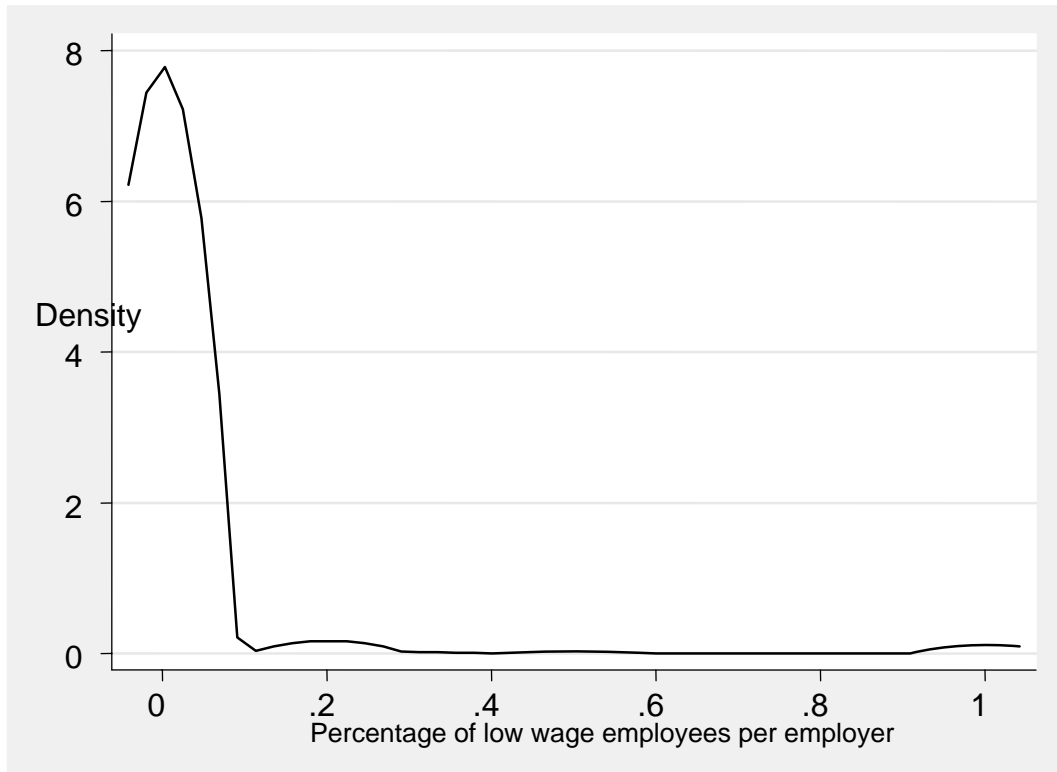


Figure B2: Lorenz Curve for \$12 low-wage rate – Mining, (adjusted for casual loading)

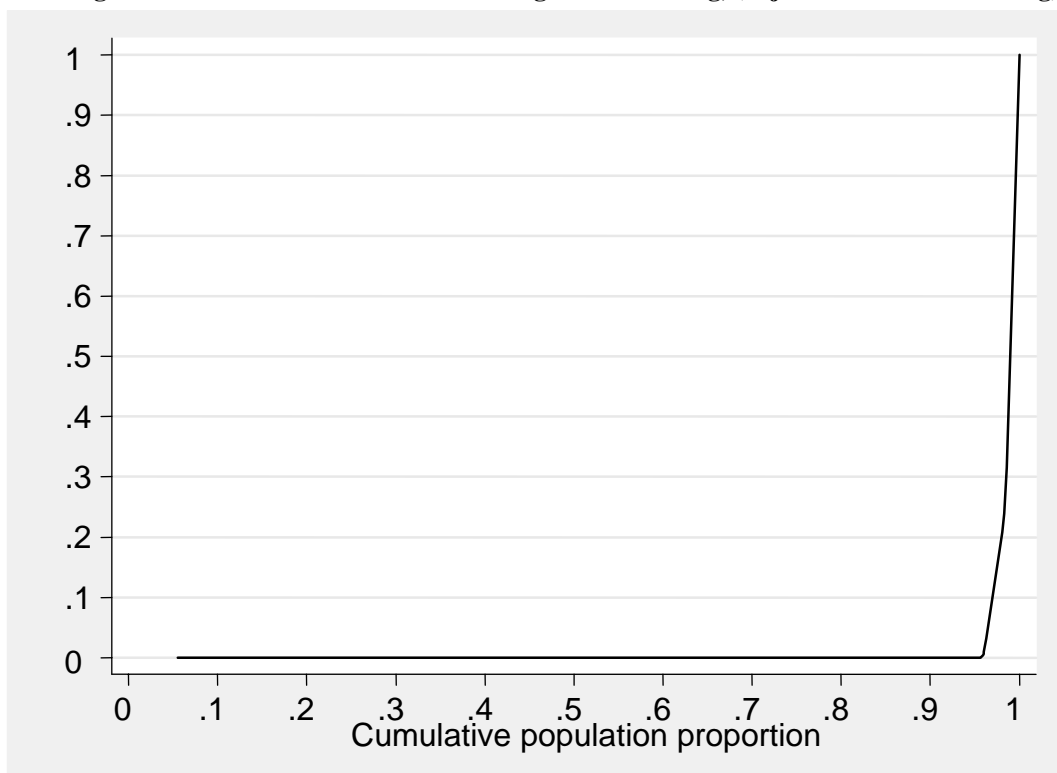


Figure B3: Kernel Density for \$12 low-wage threshold, Manufacturing Industry ,(adjusted for casual loading)

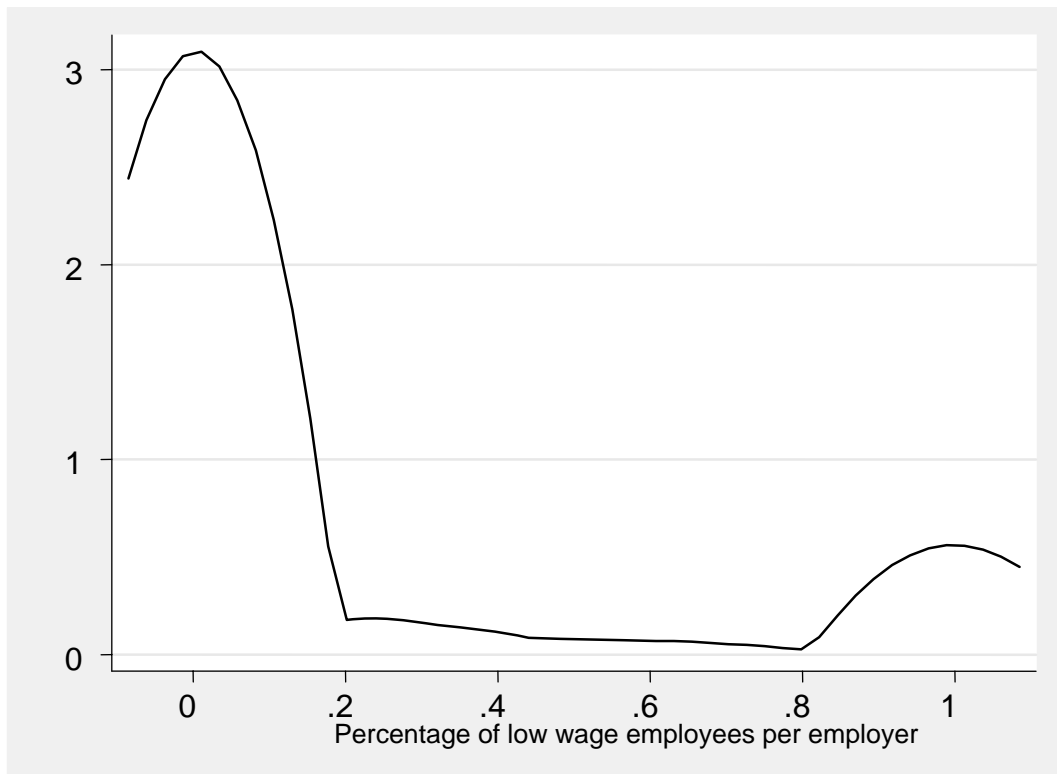


Figure B4: Lorenz Curve for \$12 low-wage rate – Manufacturing, (adjusted for casual loading)

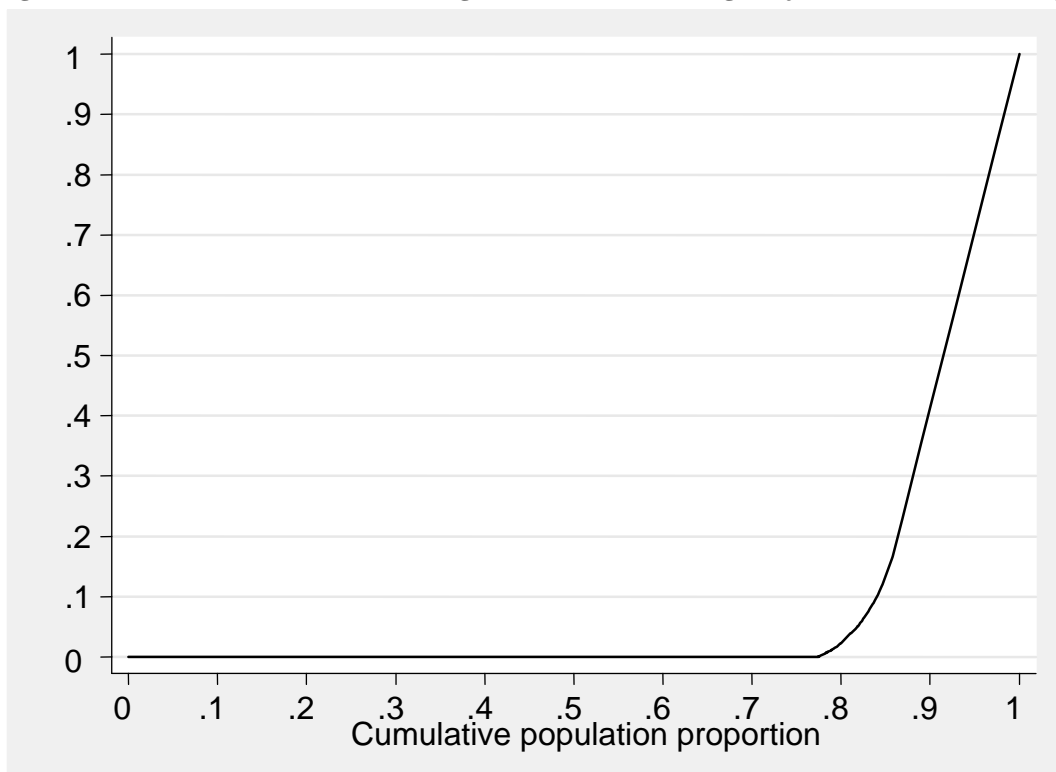


Figure B5: Kernel Density for \$12 low-wage threshold, Electricity, Gas and Water Supply Industry, (adjusted for casual loading)

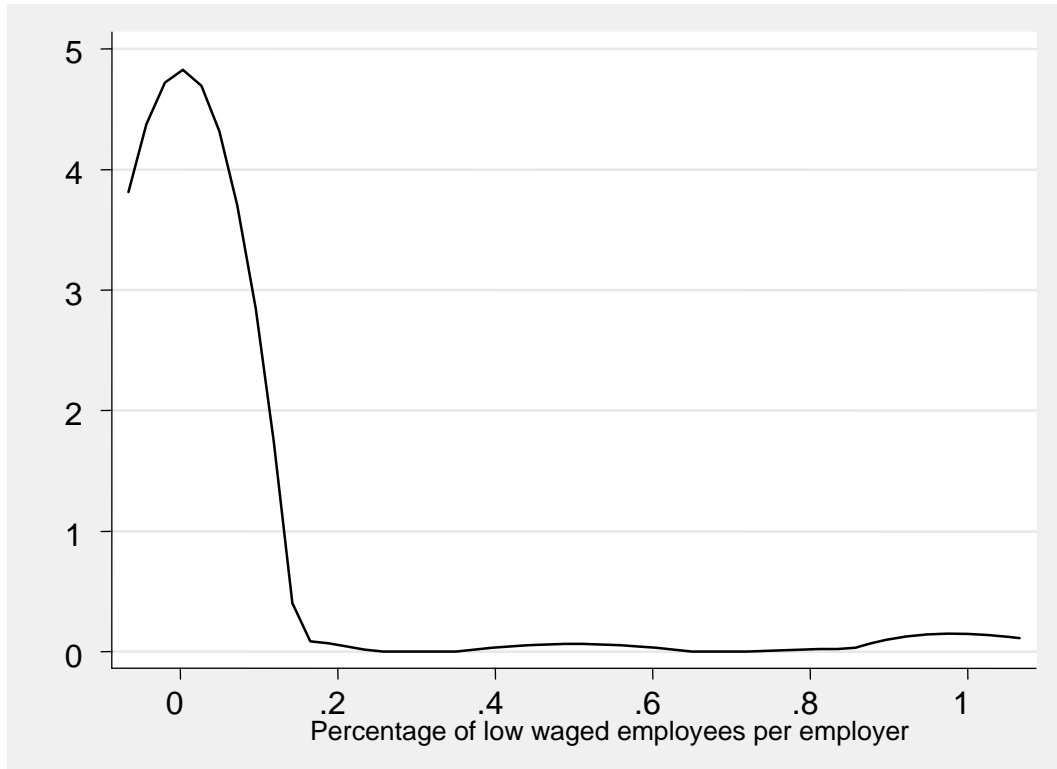


Figure B6: Lorenz Curve for \$12 low-wage rate – Electricity, Gas and Water Supply (adjusted for casual loading)

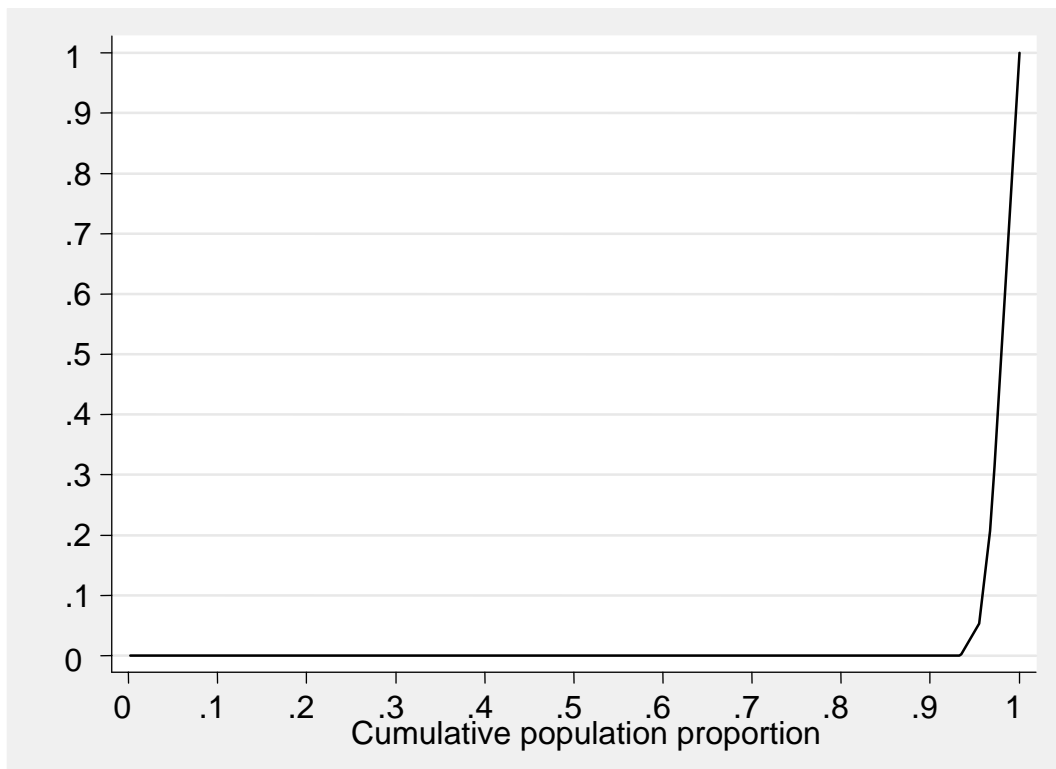


Figure B7: Kernel Density for \$12 low-wage threshold, Construction Industry, (adjusted for casual loading)

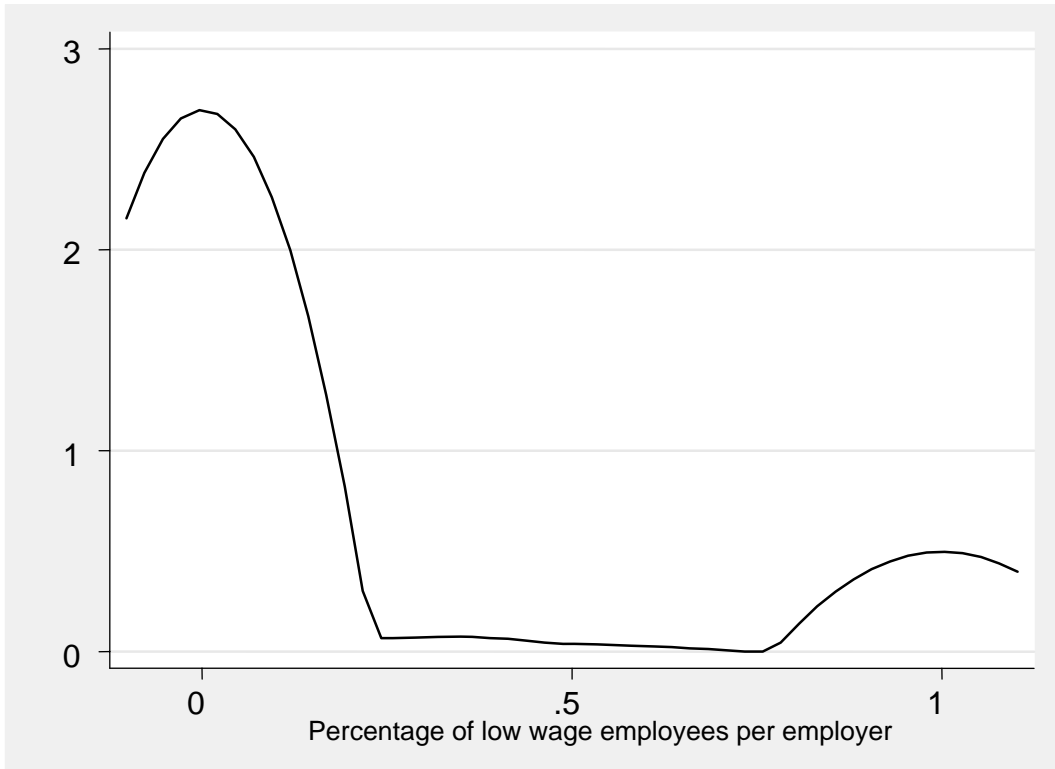


Figure B8: Lorenz Curve for \$12 low-wage rate – Construction, (adjusted for casual loading)

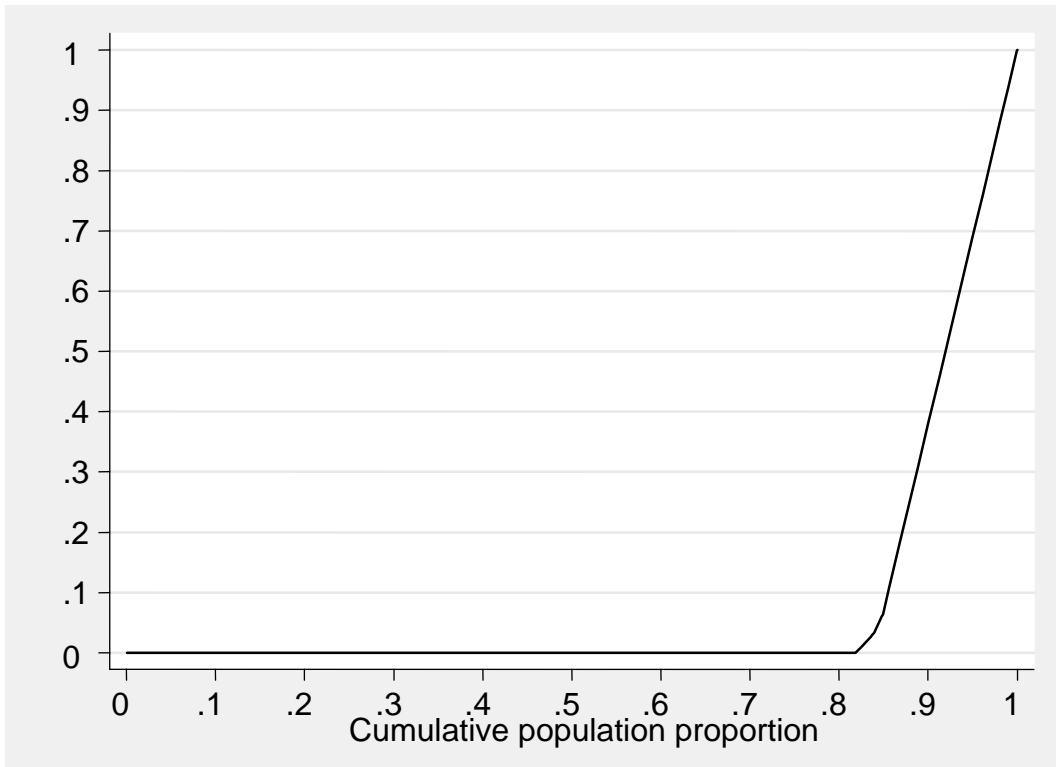


Figure B9: Kernel Density for \$12 low-wage threshold, Wholesale Industry ,(adjusted for casual loading)

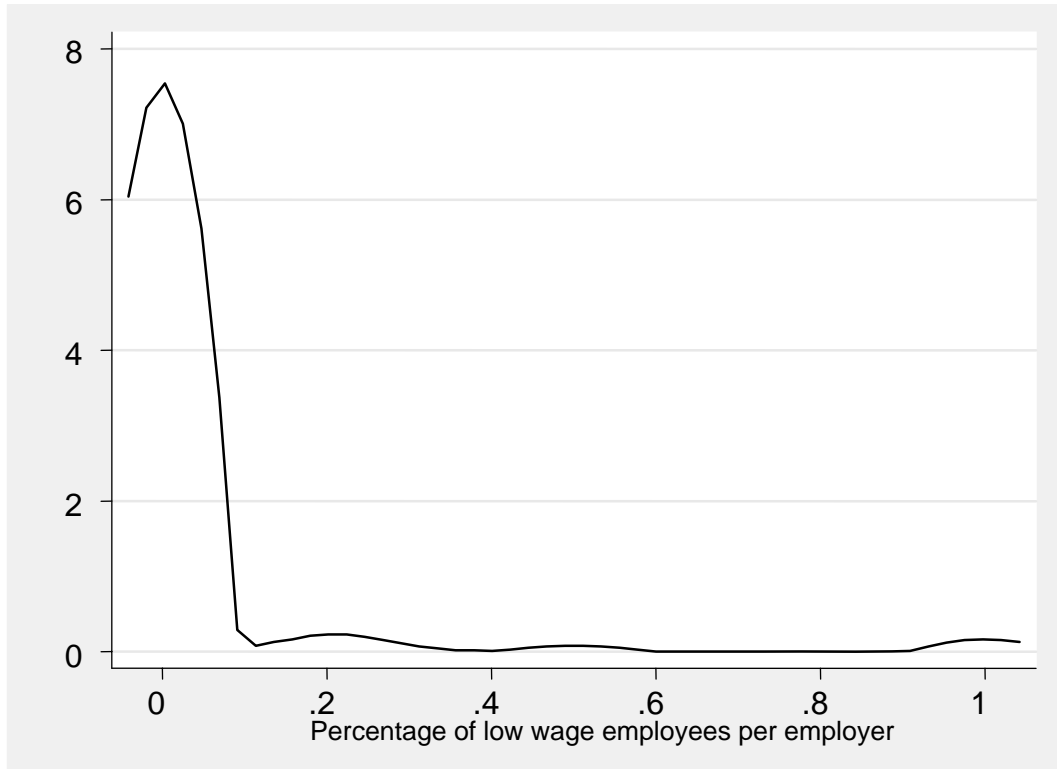


Figure B10: Lorenz Curve for \$12 low-wage rate – Wholesale (adjusted for casual loading)

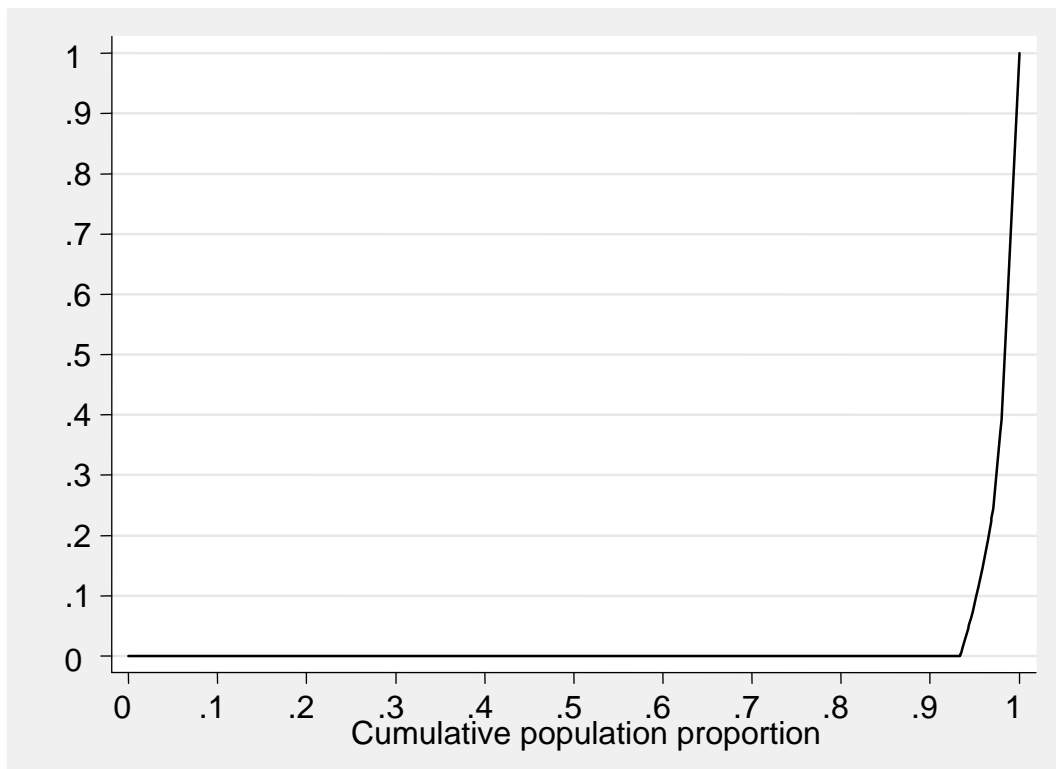


Figure B11: Kernel Density for \$12 low-wage threshold, Retail Trade Industry (adjusted for casual loading)

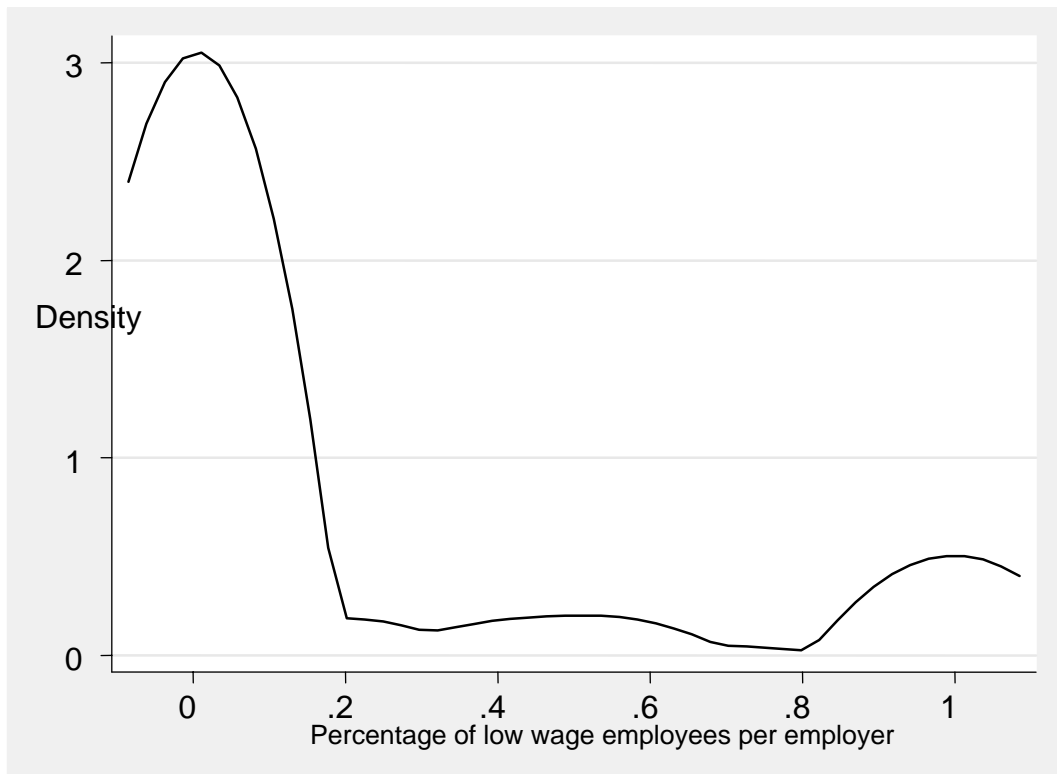


Figure B12: Lorenz Curve for \$12 low-wage rate – Retail Trade, (adjusted for casual loading)

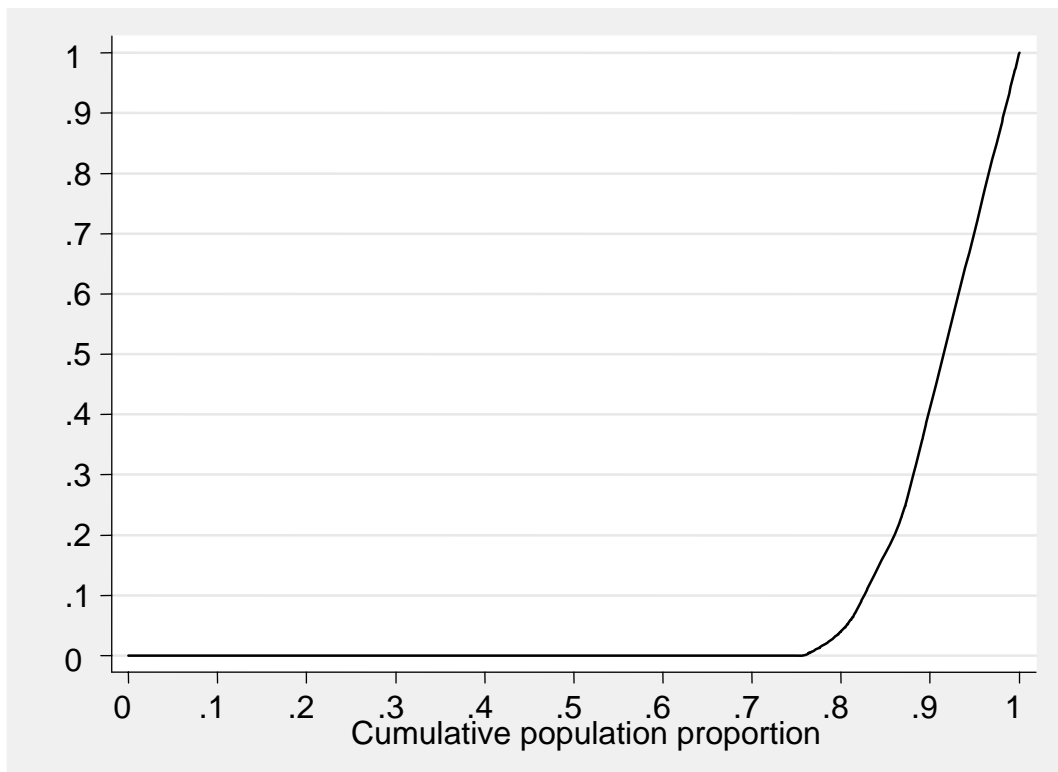


Figure B13: Kernel Density for \$12 low-wage threshold – Accommodation, Cafes and Restaurants (adjusted for casual loading)

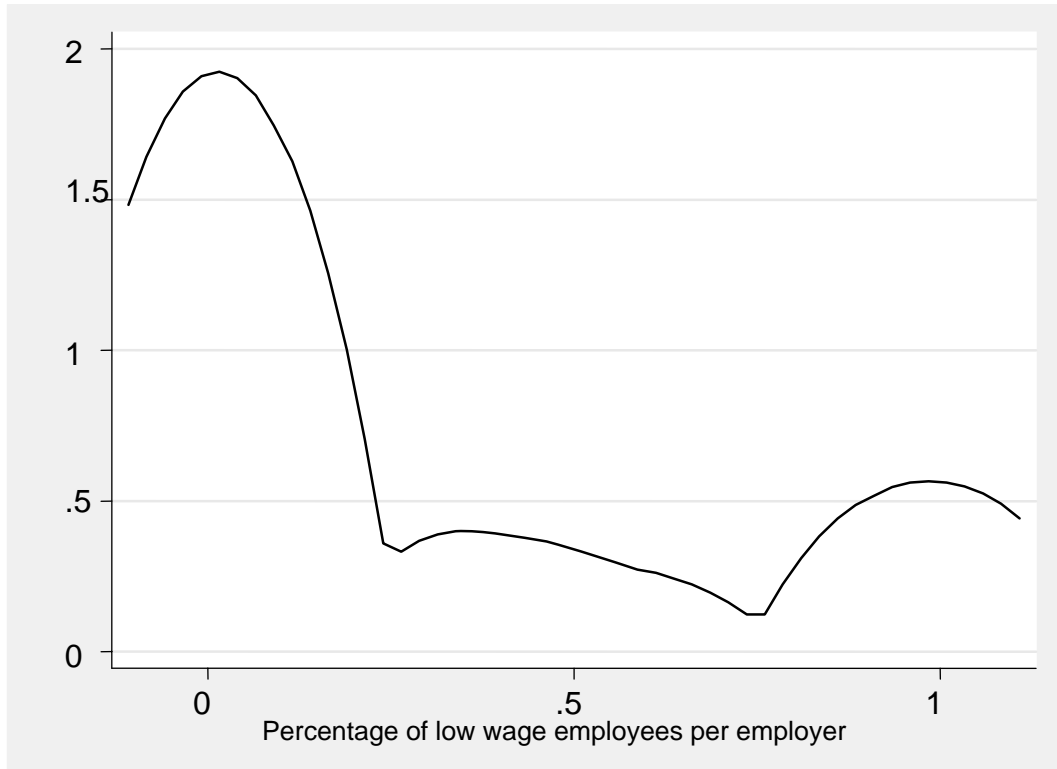


Figure B14: Lorenz Curve for \$12 low-wage rate – Accommodation, Cafes and Restaurants (adjusted for casual loading)

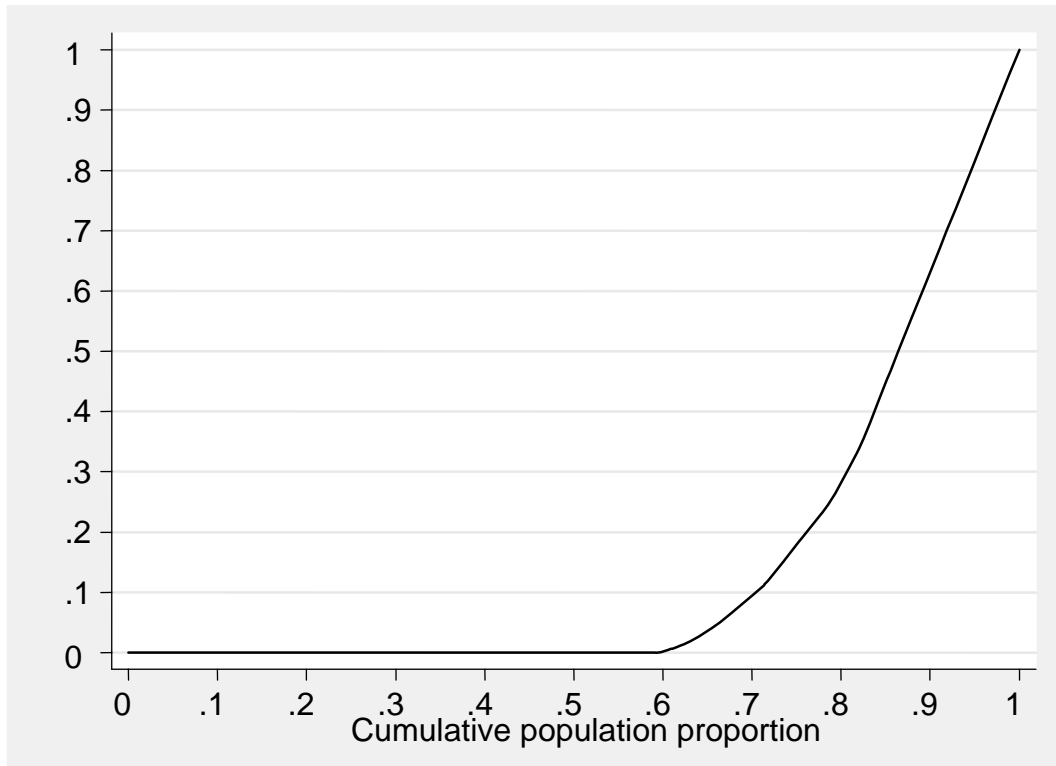


Figure B15: Kernel Density for \$12 low-wage threshold – Transport and Storage (adjusted for casual loading)

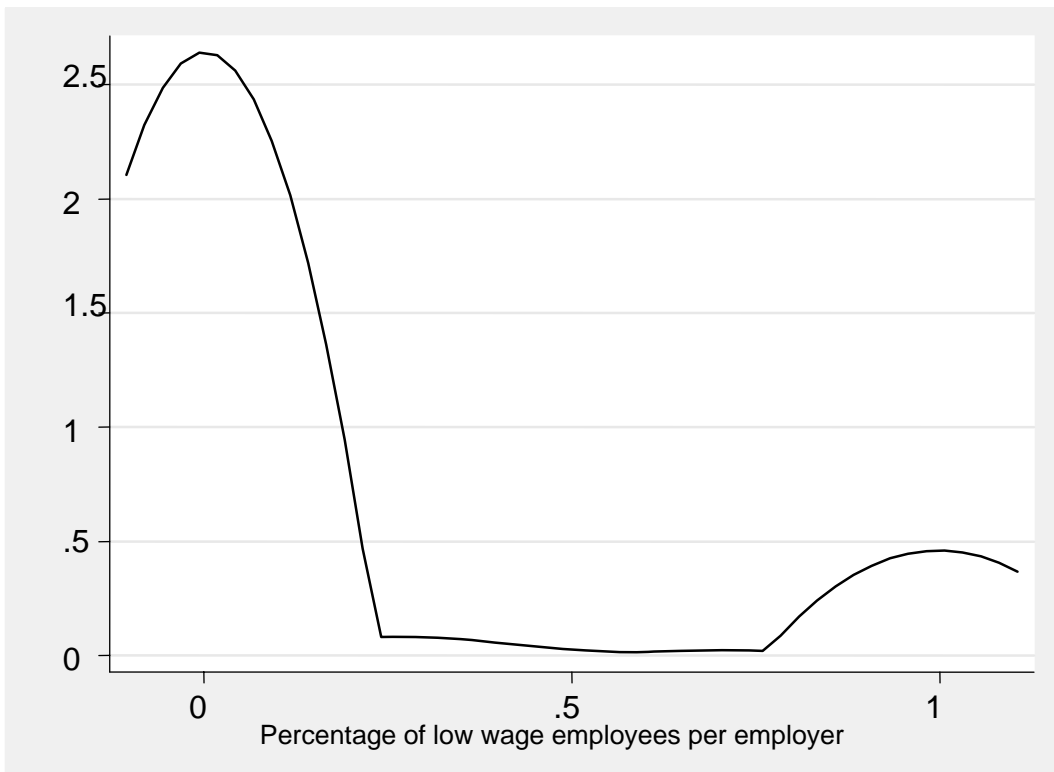


Figure B16: Lorenz Curve for \$12 low-wage rate – Transport and Storage, (adjusted for casual loading)

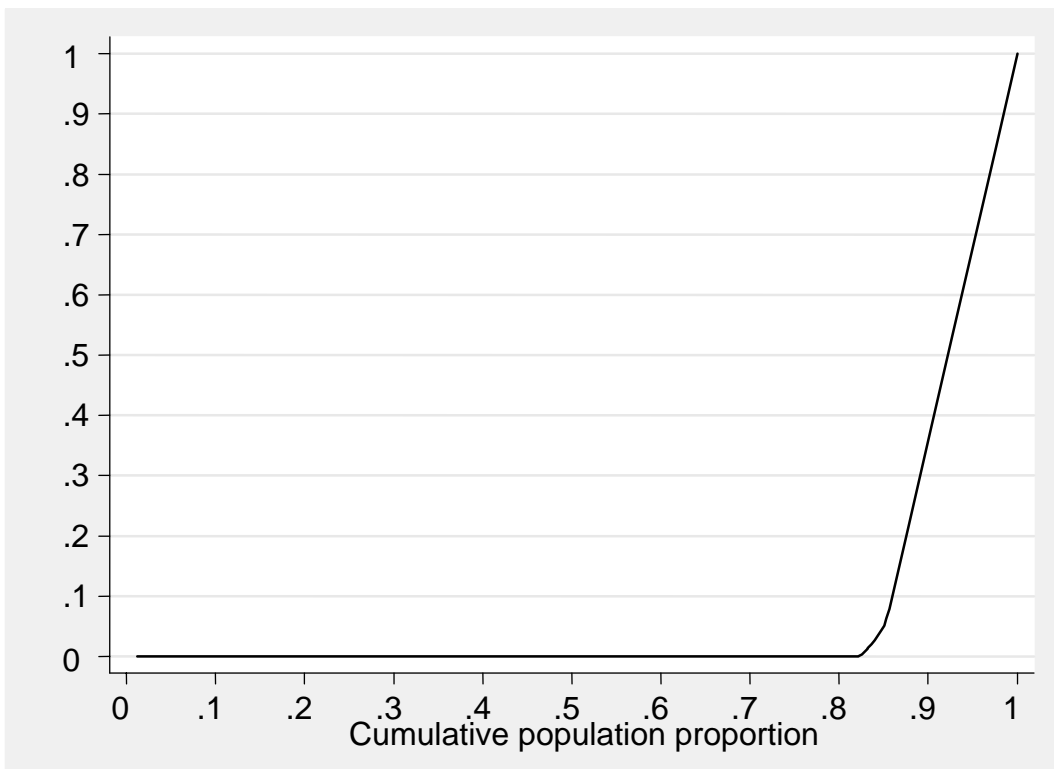


Figure B17: Kernel Density for \$12 low-wage threshold – Communication Services (adjusted for casual loading)

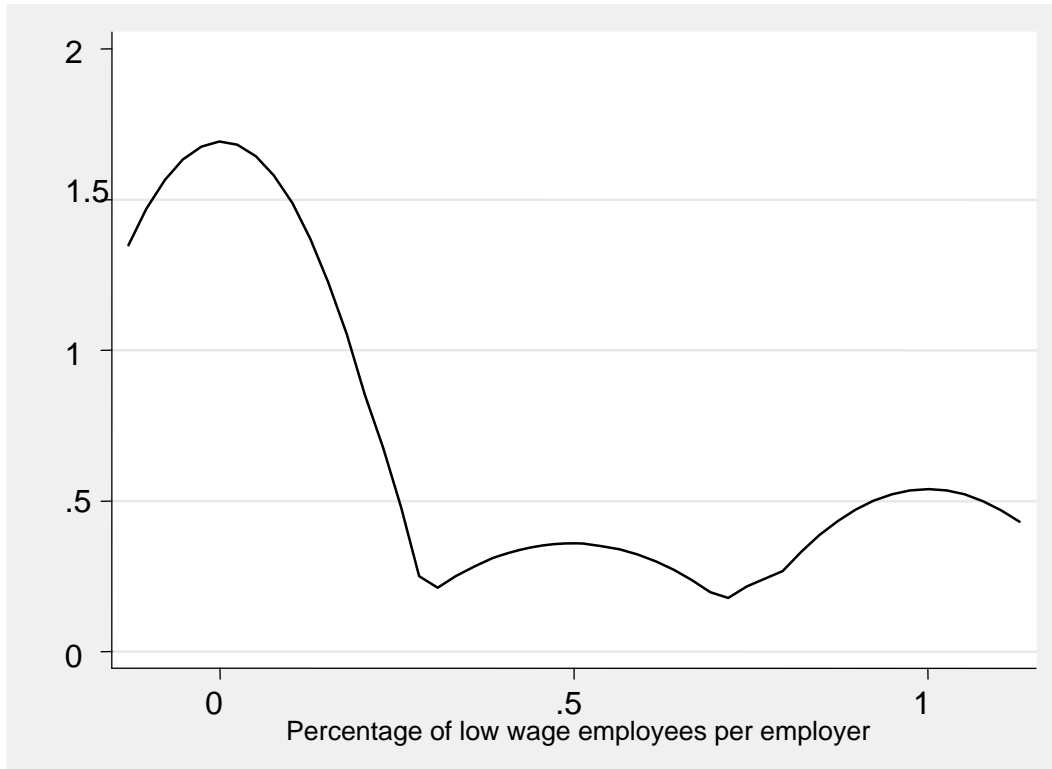


Figure B18: Lorenz Curve for \$12 low-wage rate – Communication Services, (adjusted for casual loading)

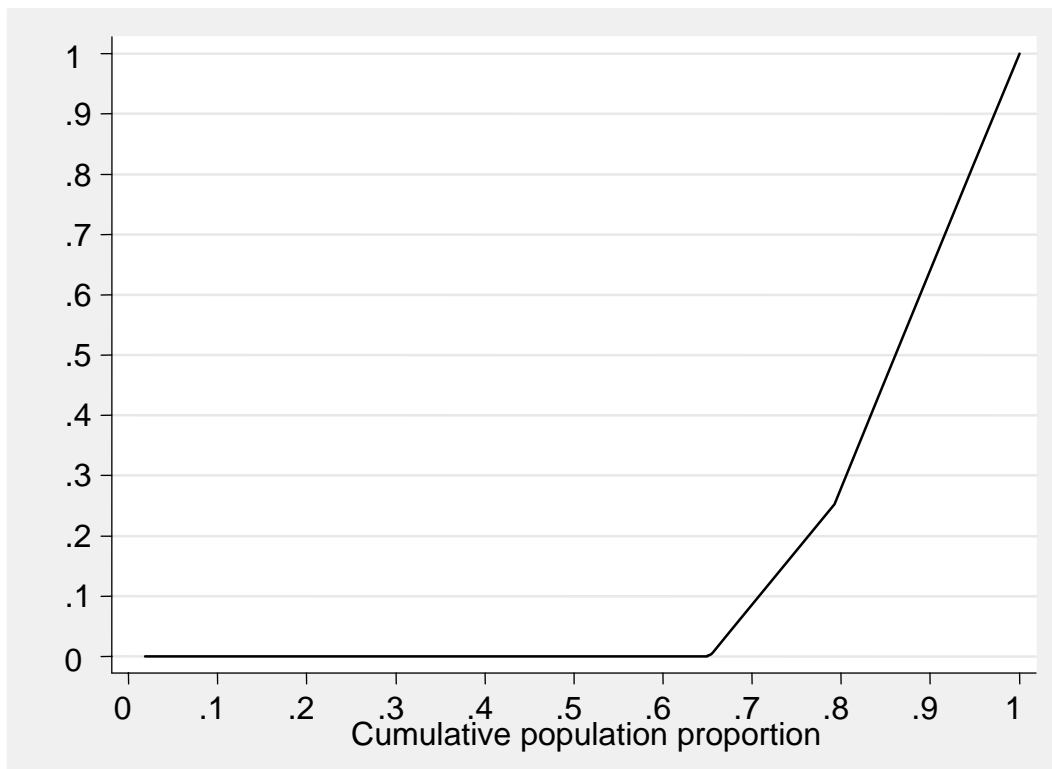


Figure B19: Kernel Density for \$12 low-wage threshold – Finance and Insurance (adjusted for casual loading)

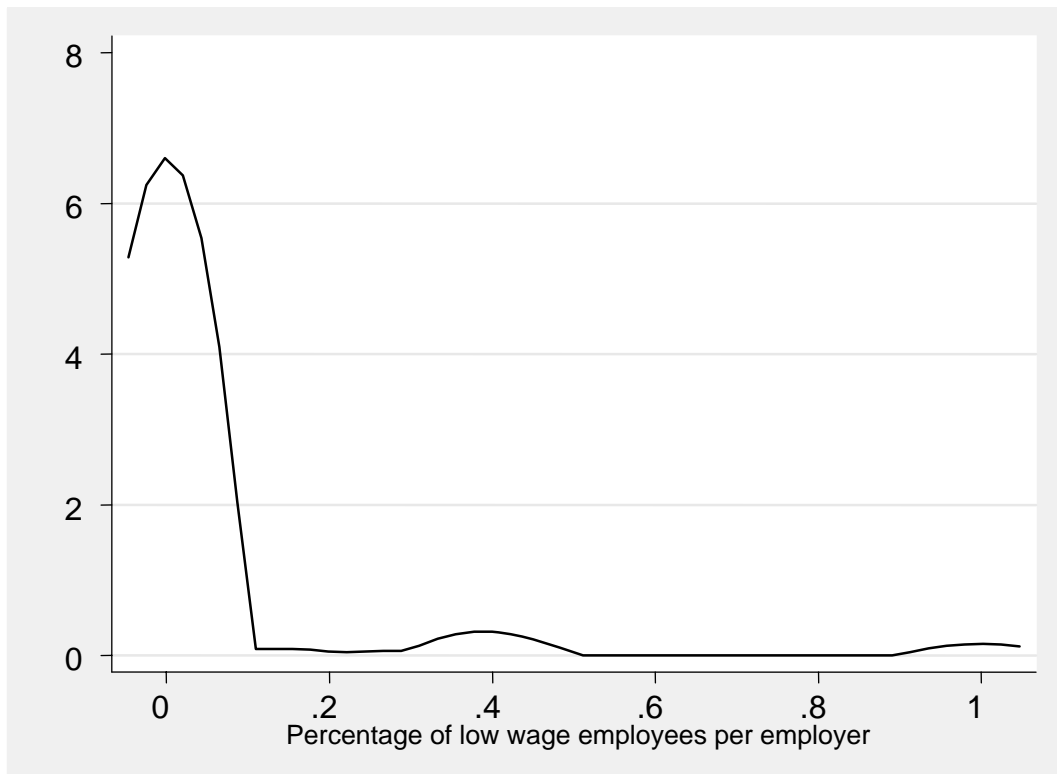


Figure B20: Lorenz Curve for \$12 low-wage rate – Finance and Insurance, (adjusted for casual loading)

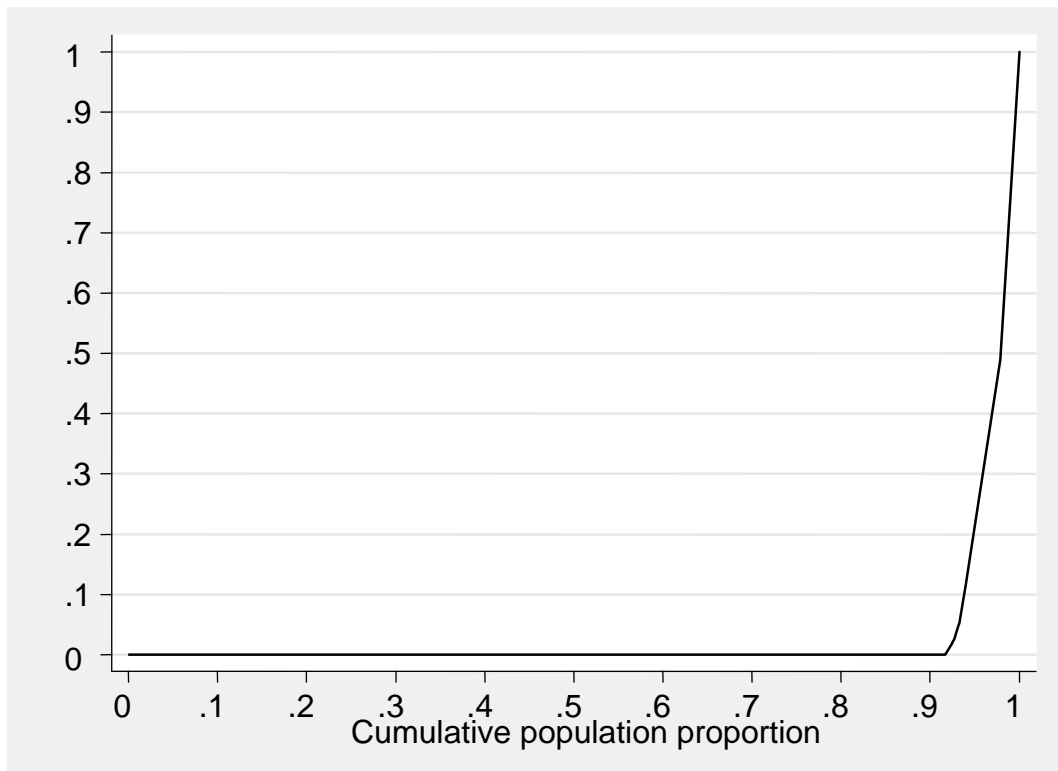


Figure B21: Kernel Density for \$12 low-wage threshold – Property and Business Services (adjusted for casual loading)

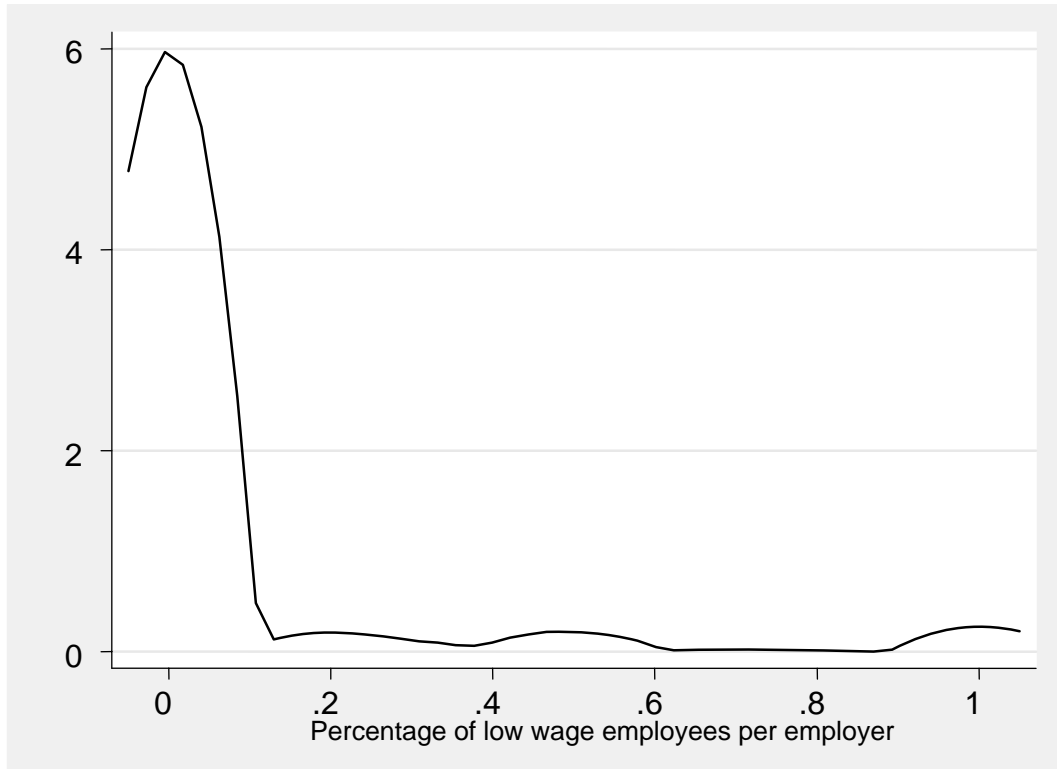


Figure B22: Lorenz Curve for \$12 low-wage rate – Property and Business Services (adjusted for casual loading)

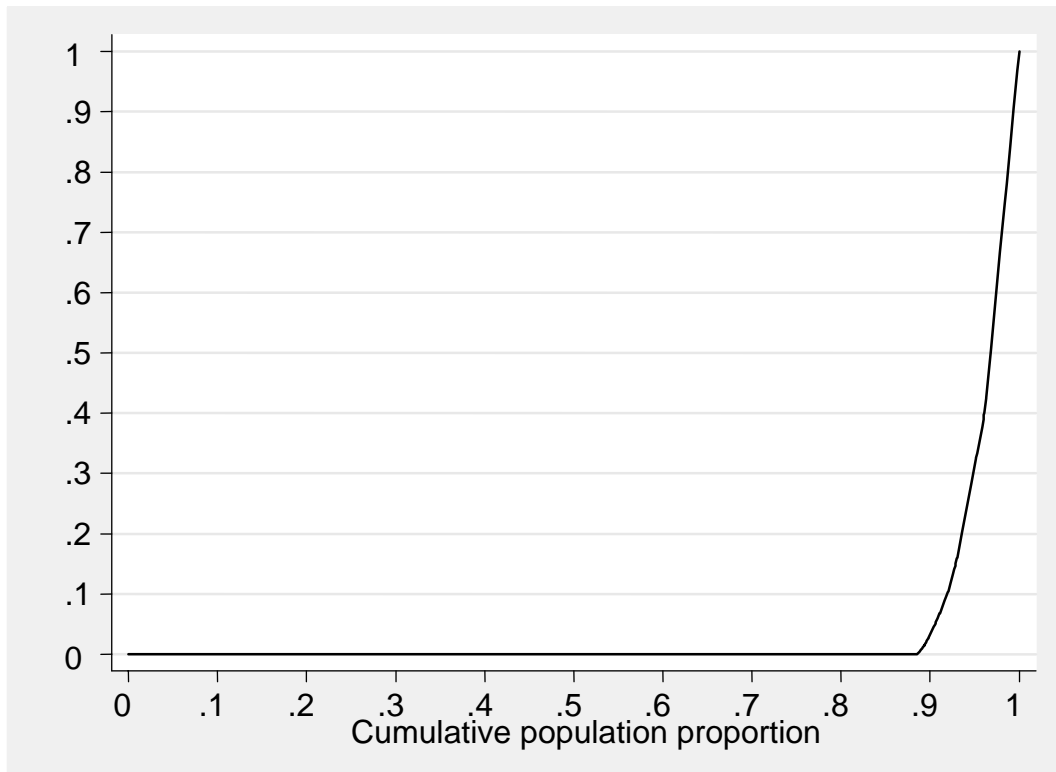


Figure B23: Kernel Density for \$12 low-wage threshold – Government and Defence (adjusted for casual loading)

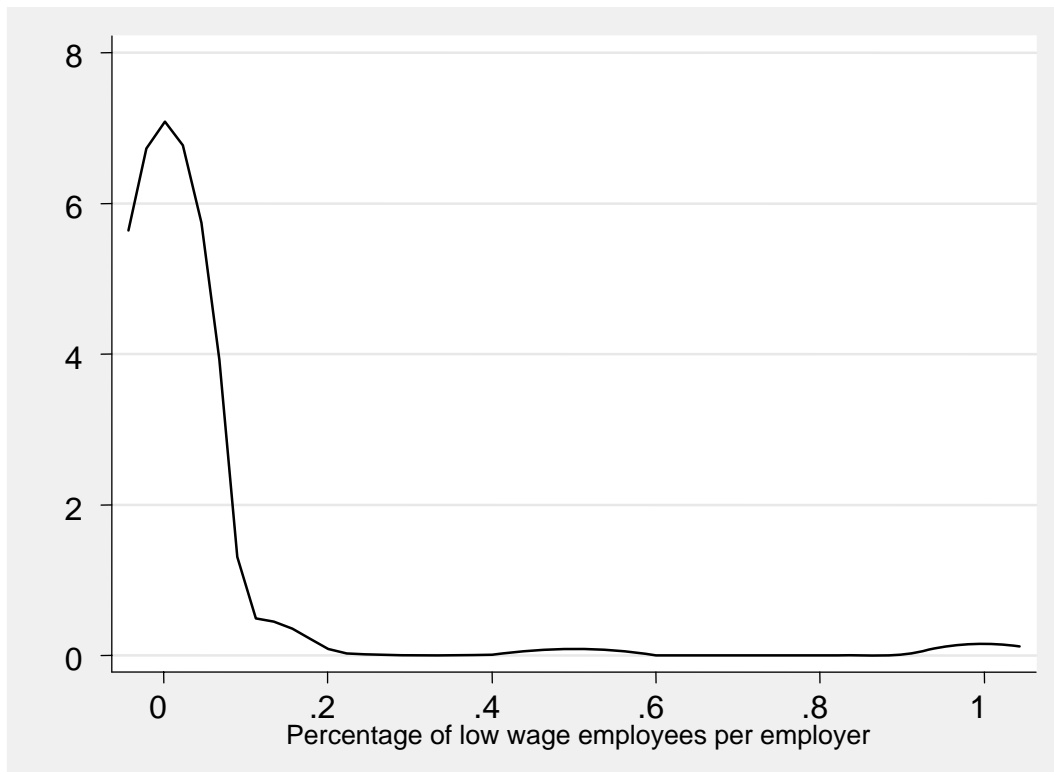
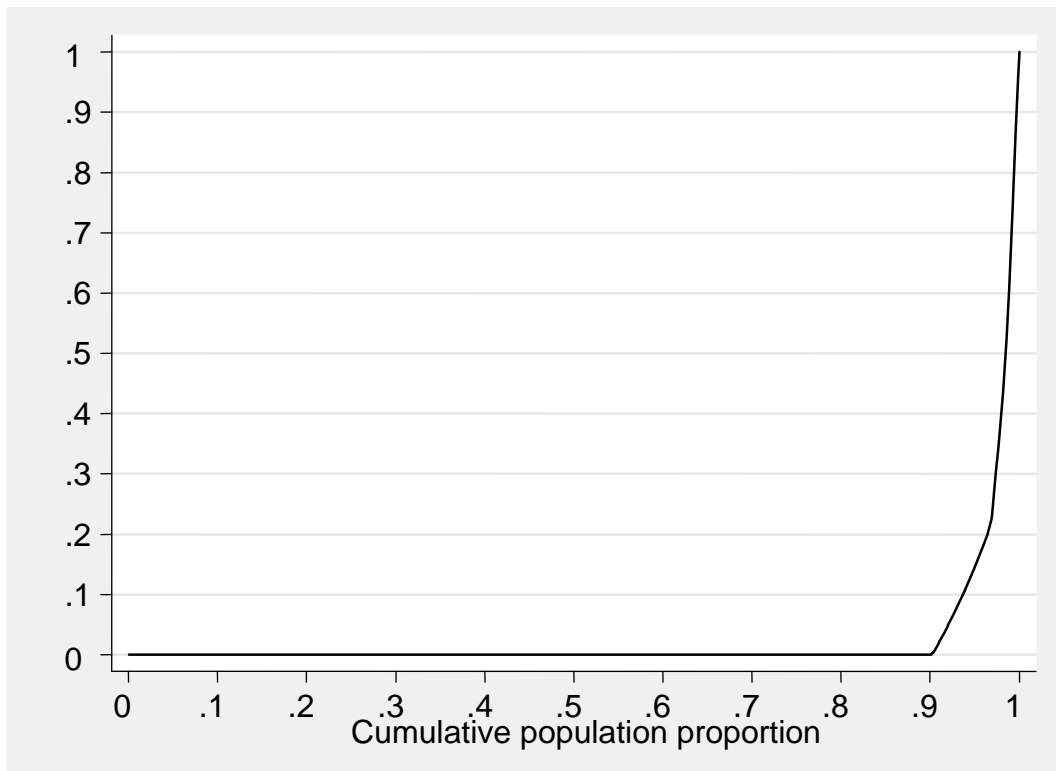


Figure B24: Lorenz Curve for \$12 low-wage rate – Government and Defence (adjusted for casual loading)



**Figure B25: Kernel Density for \$12 low-wage threshold – Education
(adjusted for casual loading)**

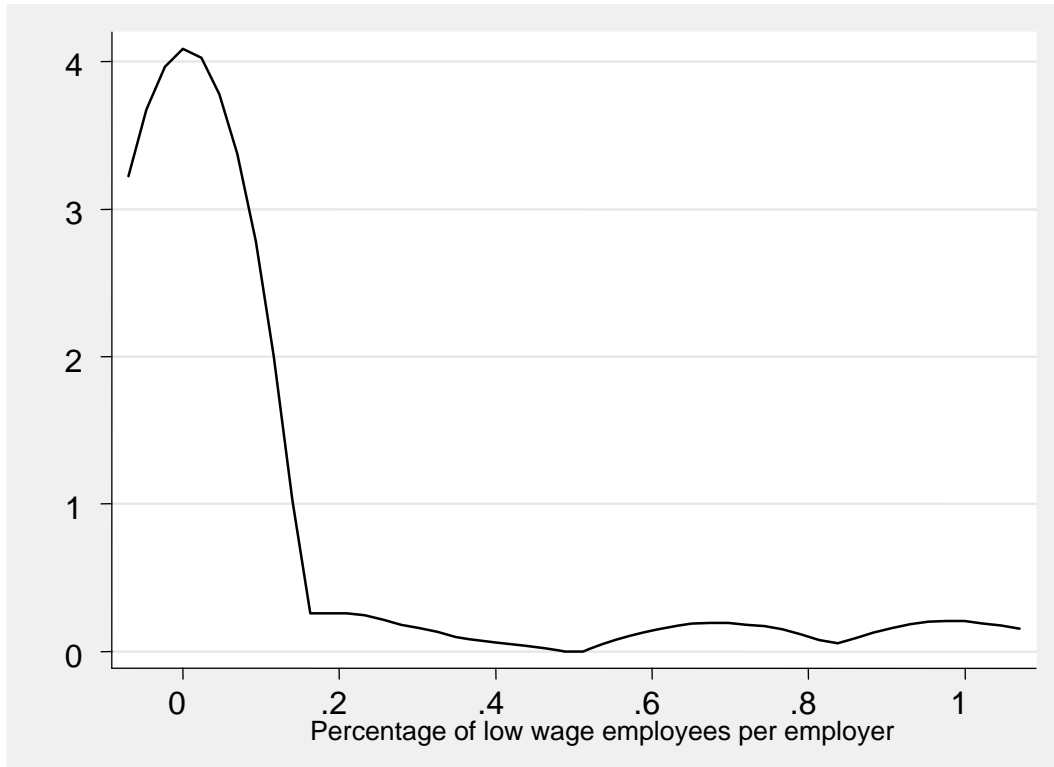


Figure B26: Lorenz Curve for \$12 low-wage rate – Education, (adjusted for casual loading)

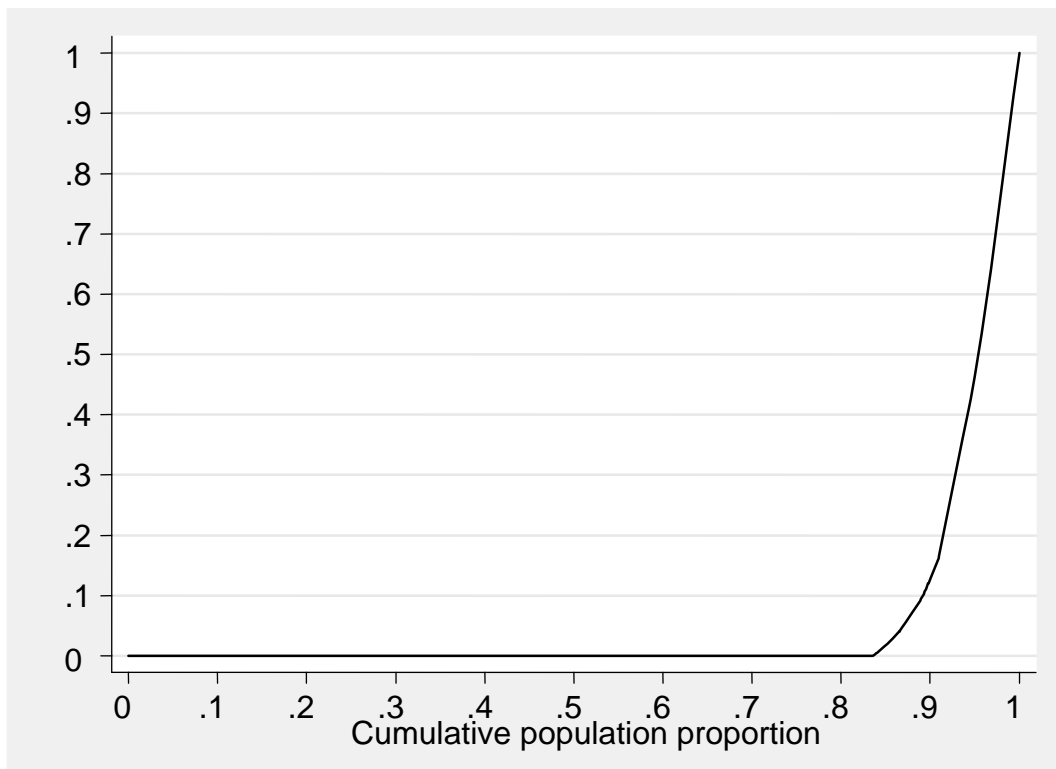


Figure B27: Kernel Density for \$12 low-wage threshold – Health and Community Services, (adjusted for casual loading)

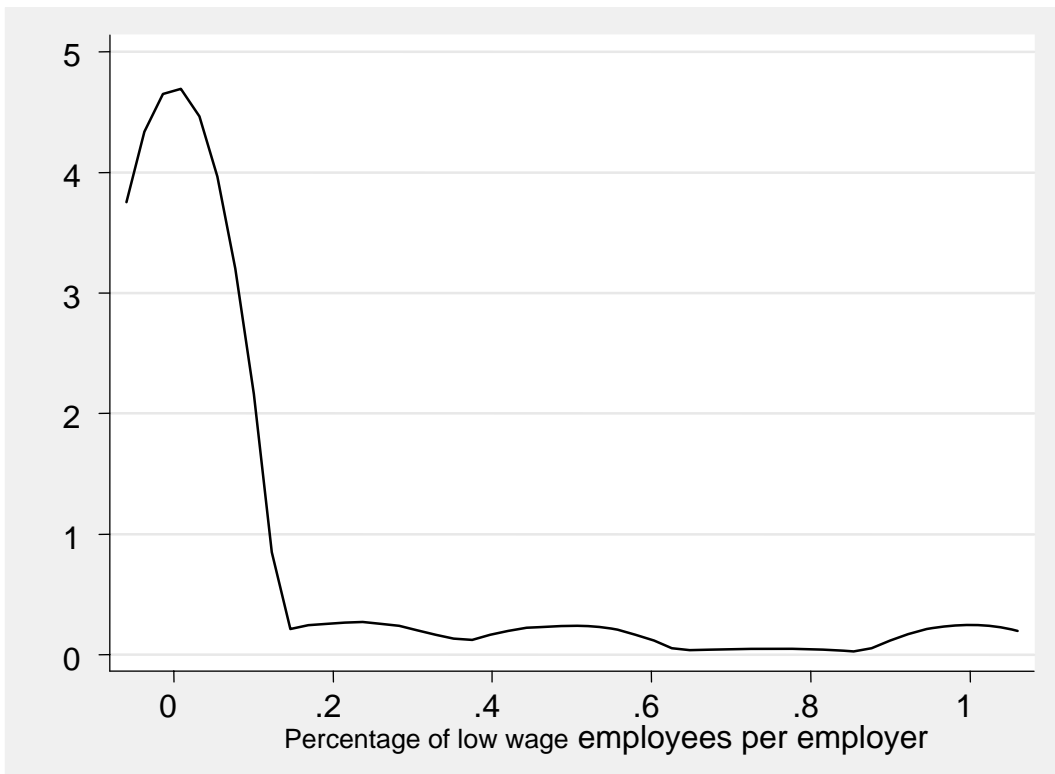


Figure B28: Lorenz Curve for \$12 low-wage rate – Health and Community Services (adjusted for casual loading)

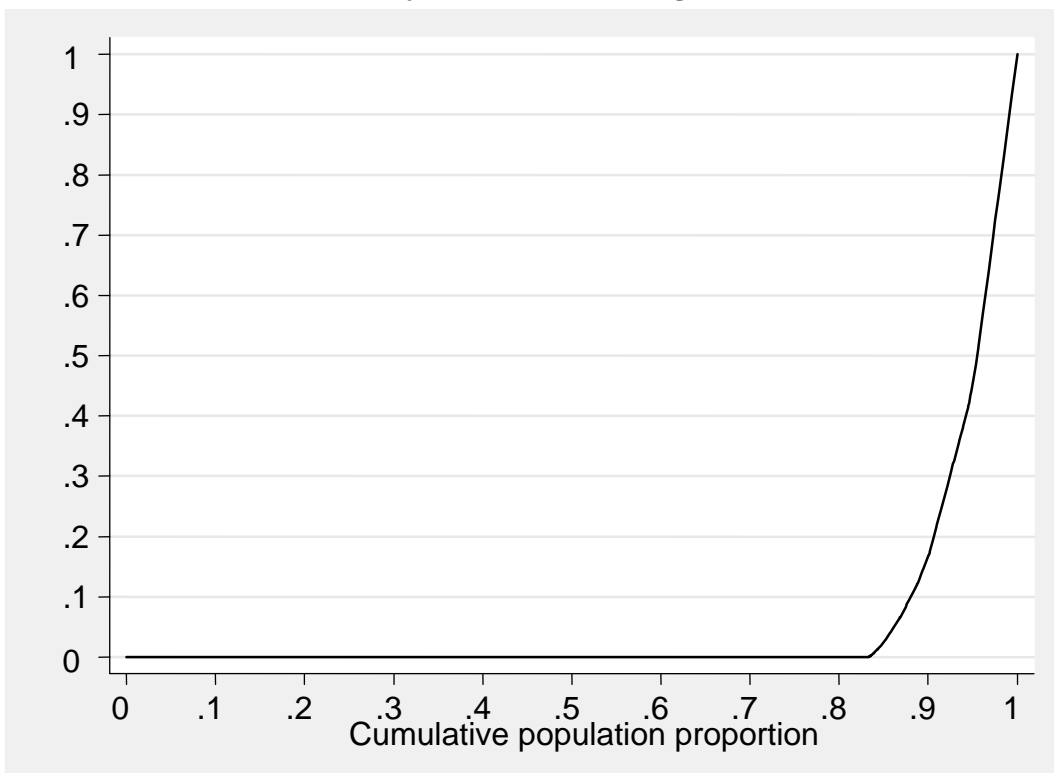


Figure B29: Kernel Density for \$12 low-wage threshold – Cultural and Recreational Services, (adjusted for casual loading)

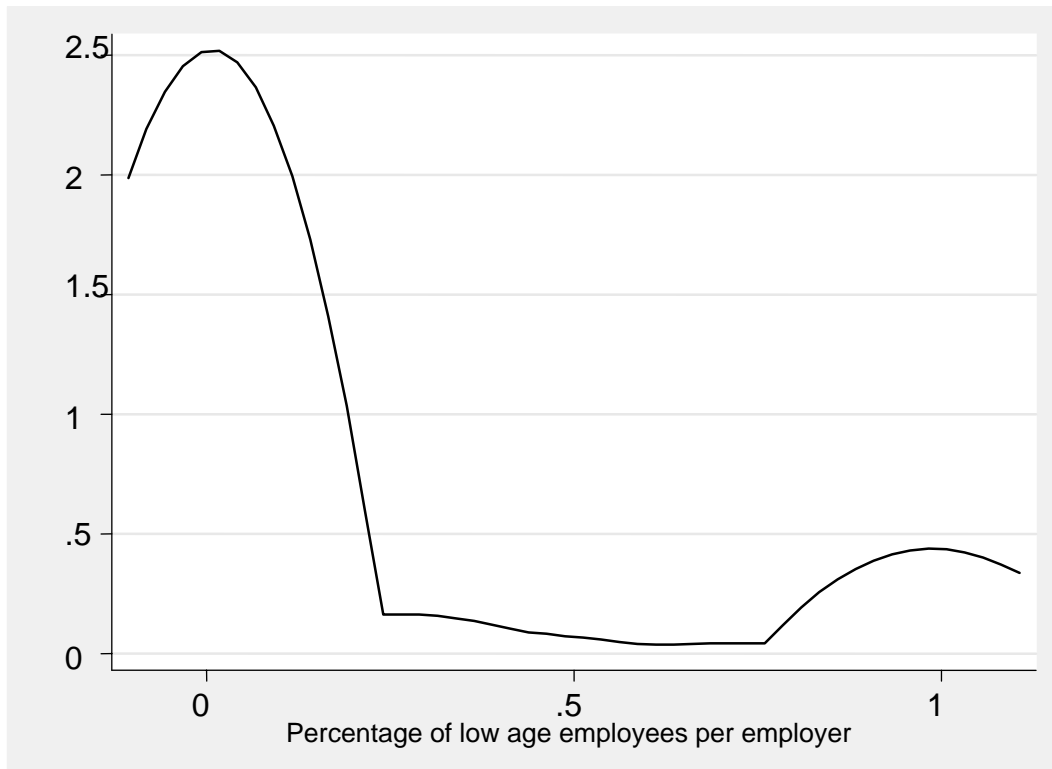


Figure B30: Lorenz Curve for \$12 low-wage rate – Cultural and Recreational Services (adjusted for casual loading)

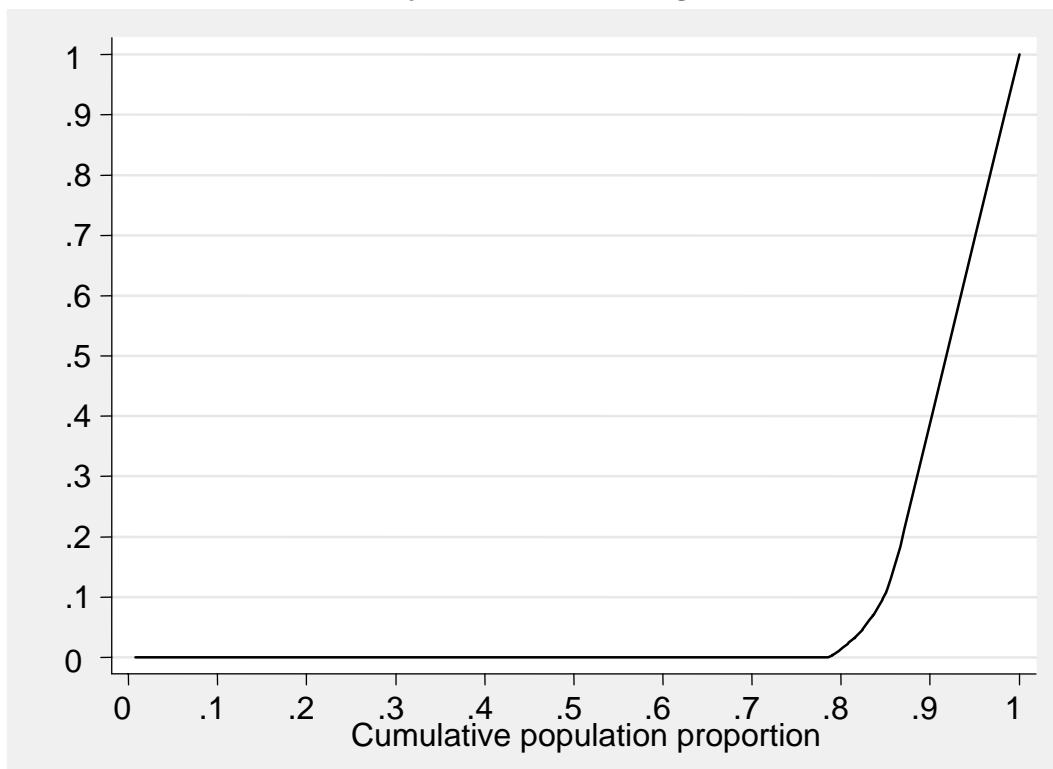


Figure B31: Kernel Density for \$12 low-wage threshold – Personal and Other Services (adjusted for casual loading)

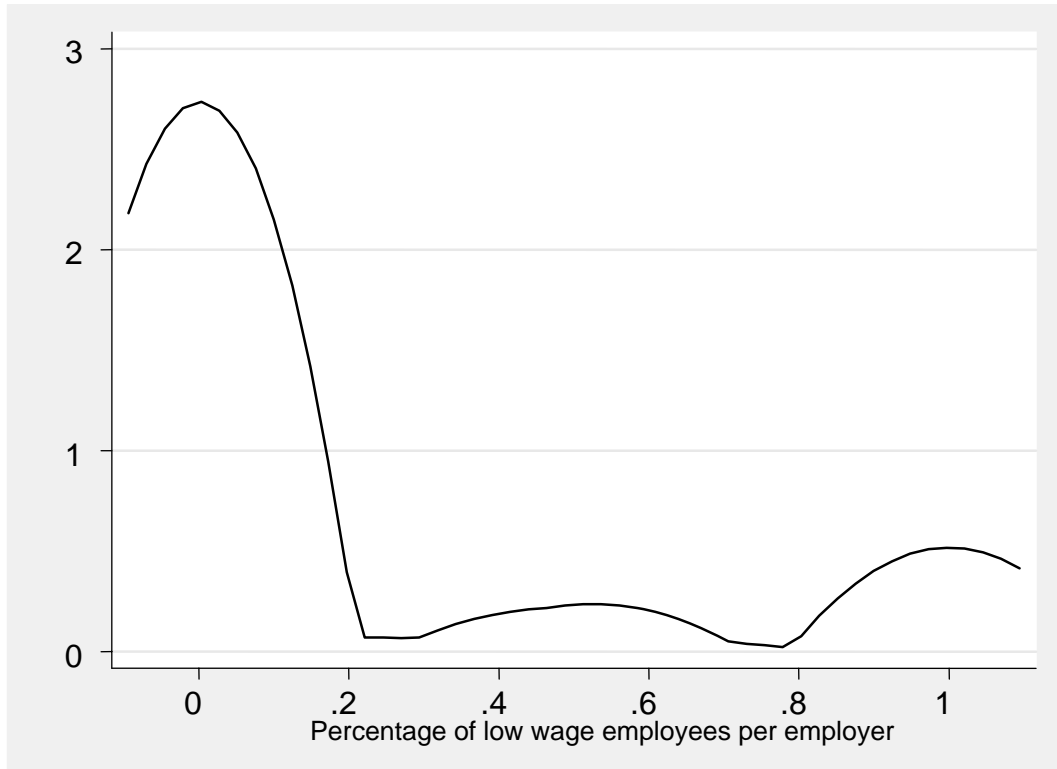


Figure B32: Lorenz Curve for \$12 low-wage rate – Personal and Other Services (adjusted for casual loading)

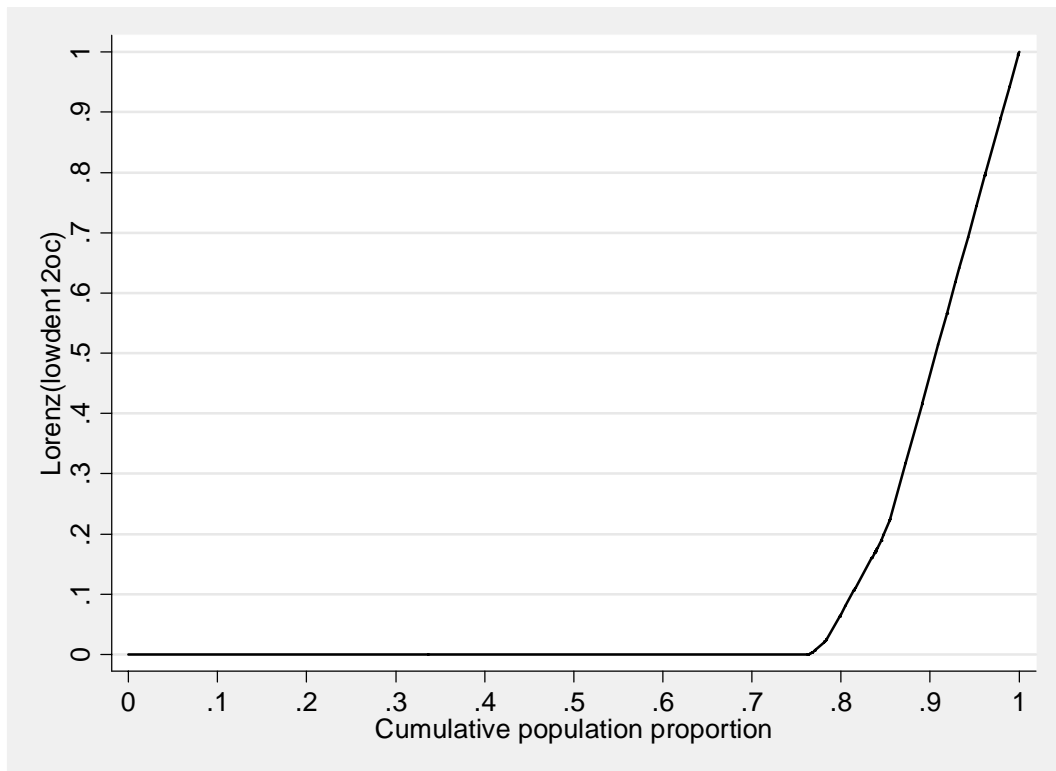


Figure B33: Kernel Density for \$12 low-wage rate – Private Sector, (adjusted for casual loading)

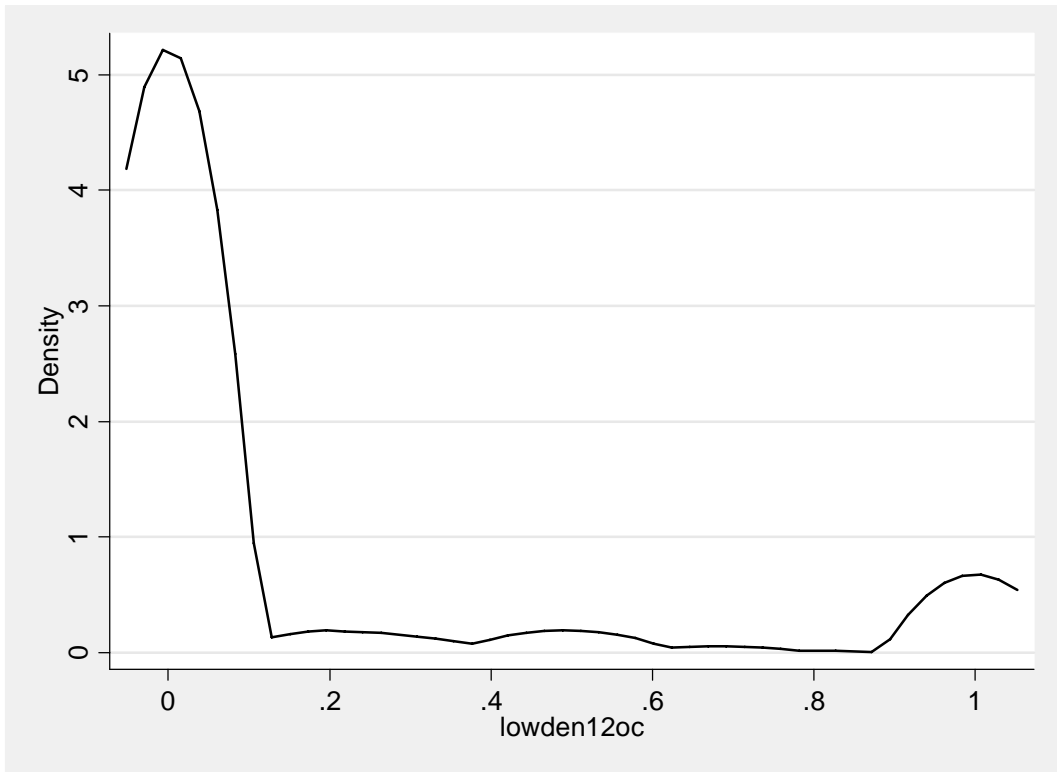


Figure B34: Lorenz Curve for \$12 low-wage rate – Private Sector, (adjusted for casual loading)

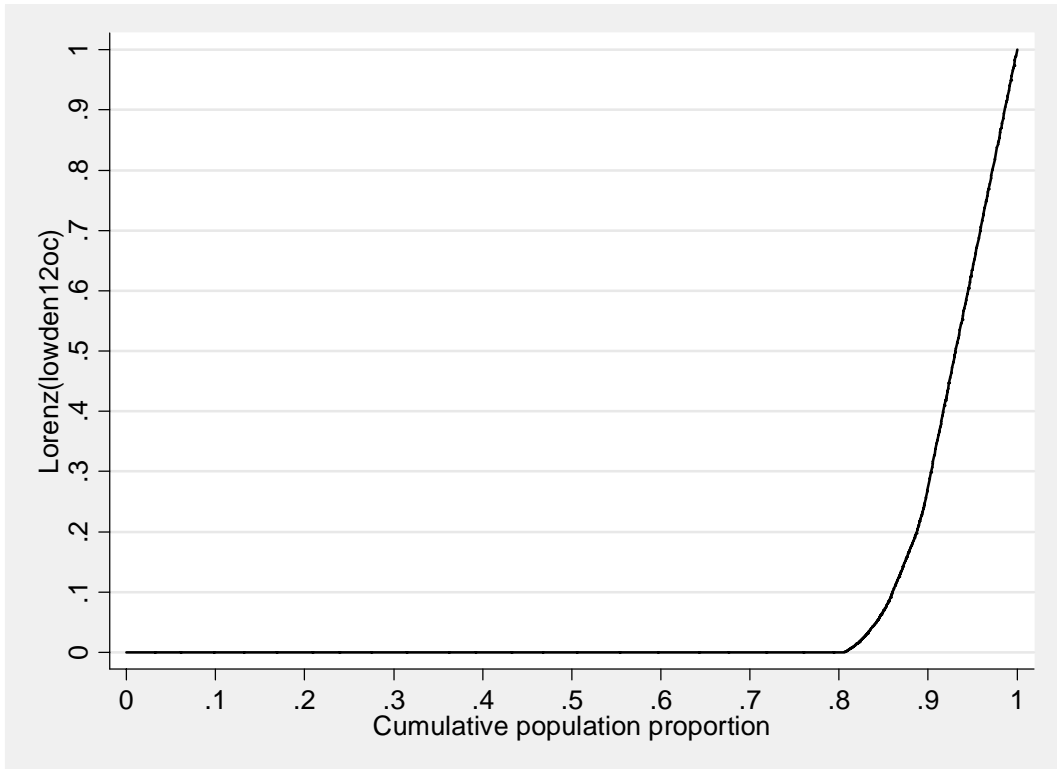


Figure B35: Kernel Density for \$12 low-wage rate – Public Sector, (adjusted for casual loading)

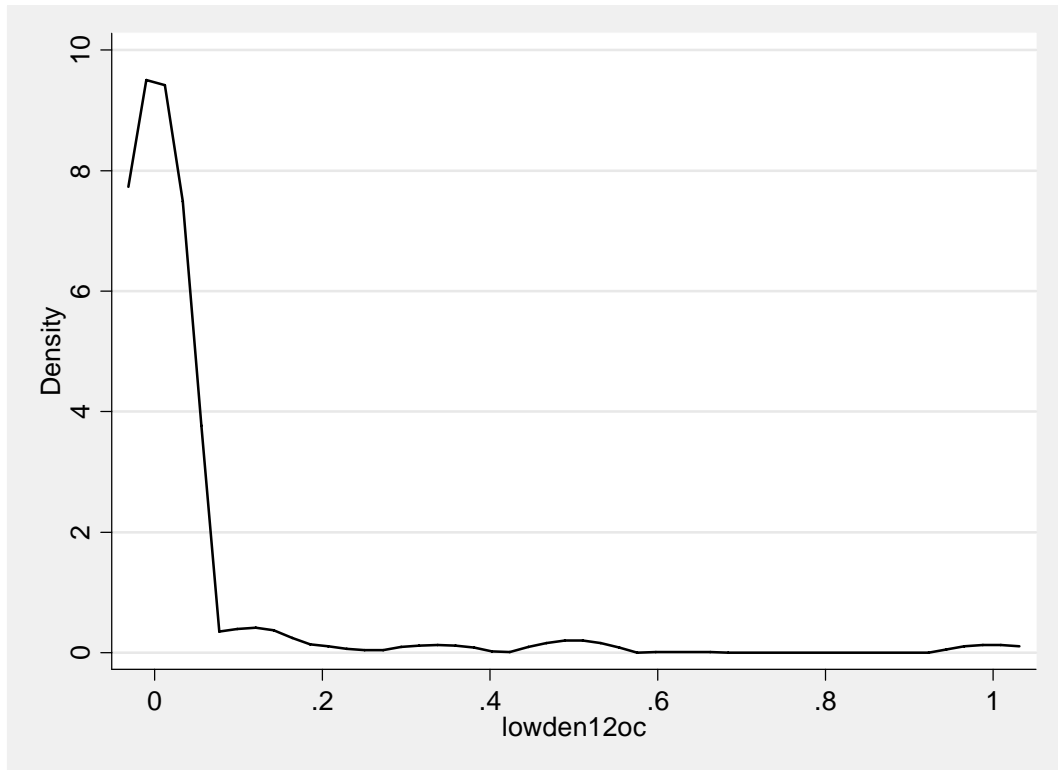


Figure B36: Lorenz Curve for \$12 low-wage rate – Private Sector, (adjusted for casual loading)

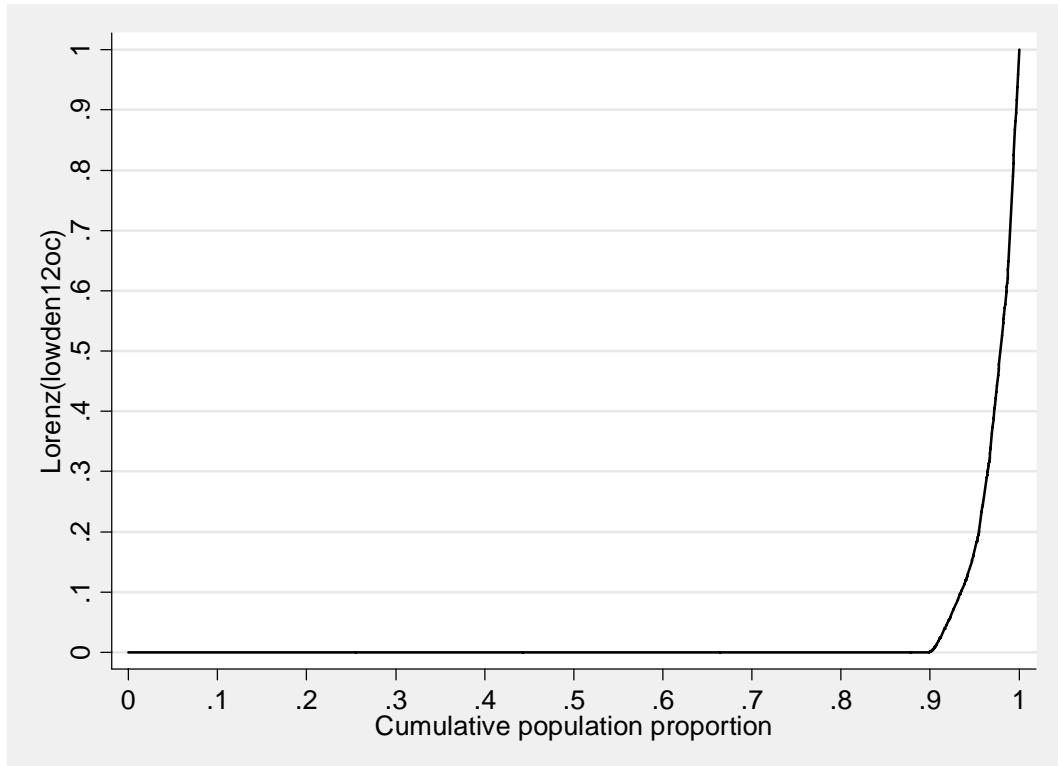


Figure B37: Kernel Density for \$12 low-wage rate – 1 – 19 Employees, (adjusted for casual loading)

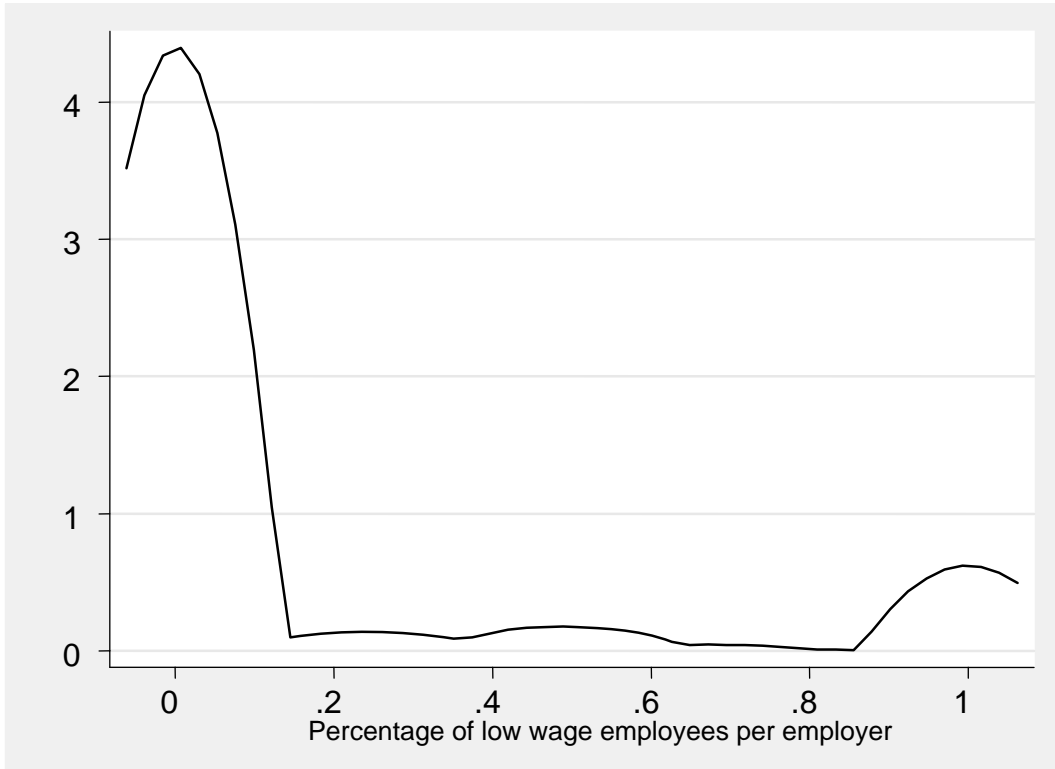


Figure B38: Lorenz Curve for \$12 low-wage rate – 1 – 19 Employees, (adjusted for casual loading)

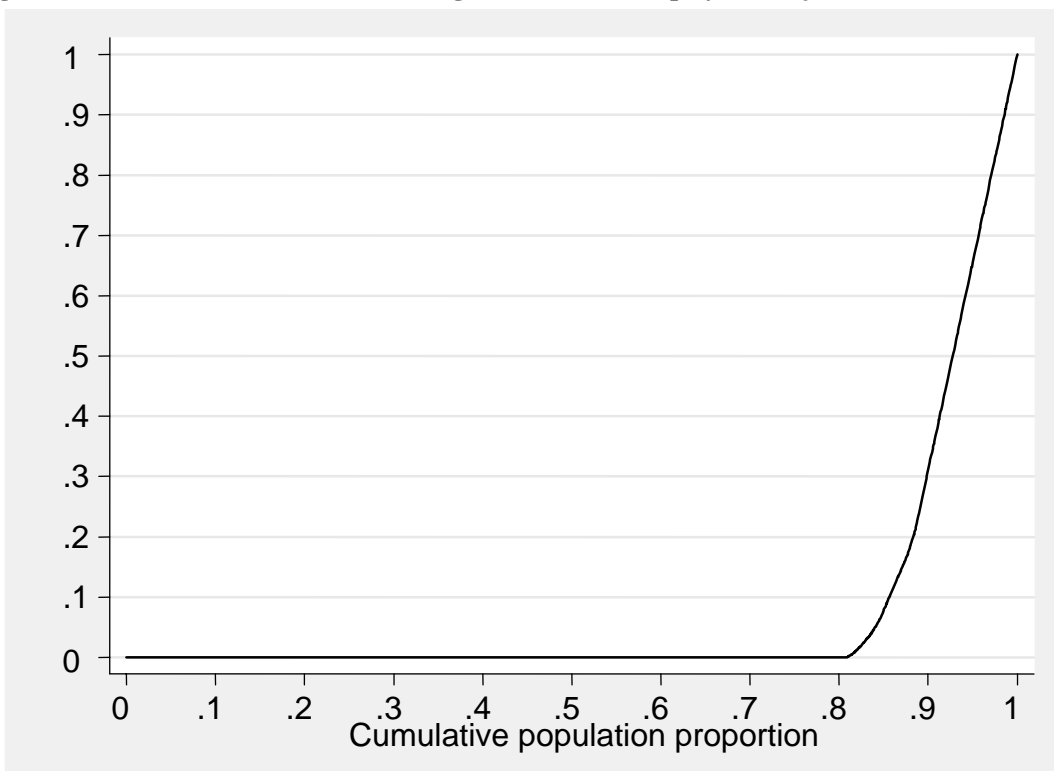


Figure B39: Kernel Density for \$12 low-wage rate – 20 – 49 Employees, (adjusted for casual loading)

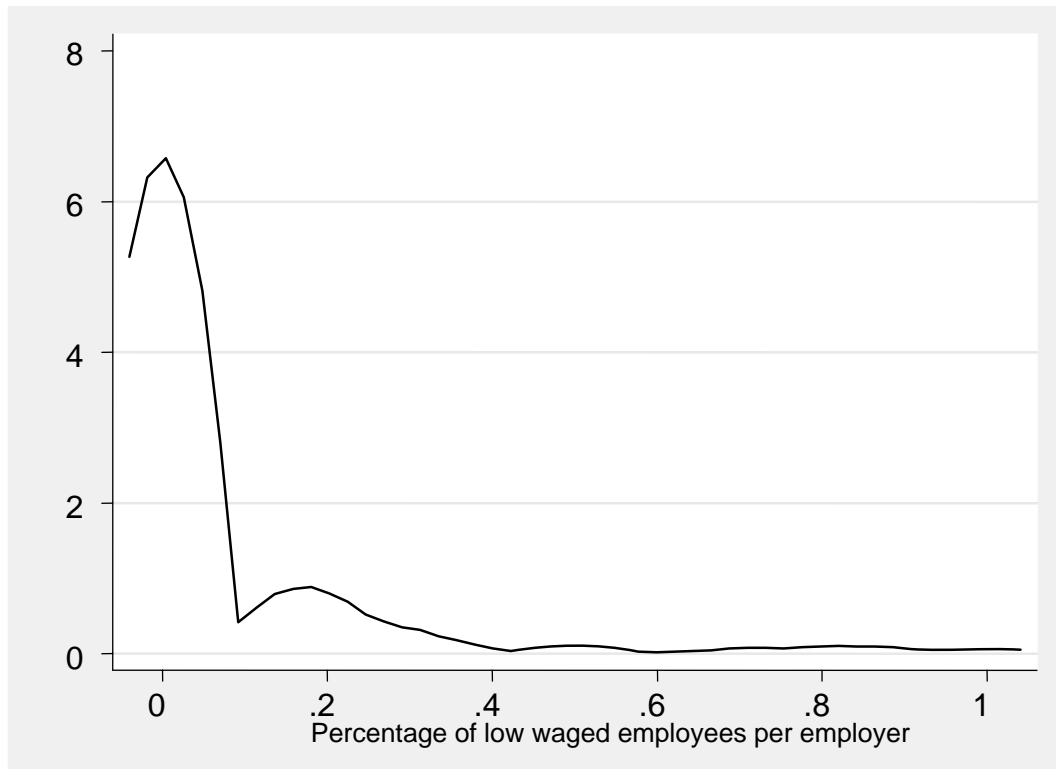


Figure B40: Lorenz Curve for \$12 low-wage rate – 20 – 49 Employees, (adjusted for casual loading)

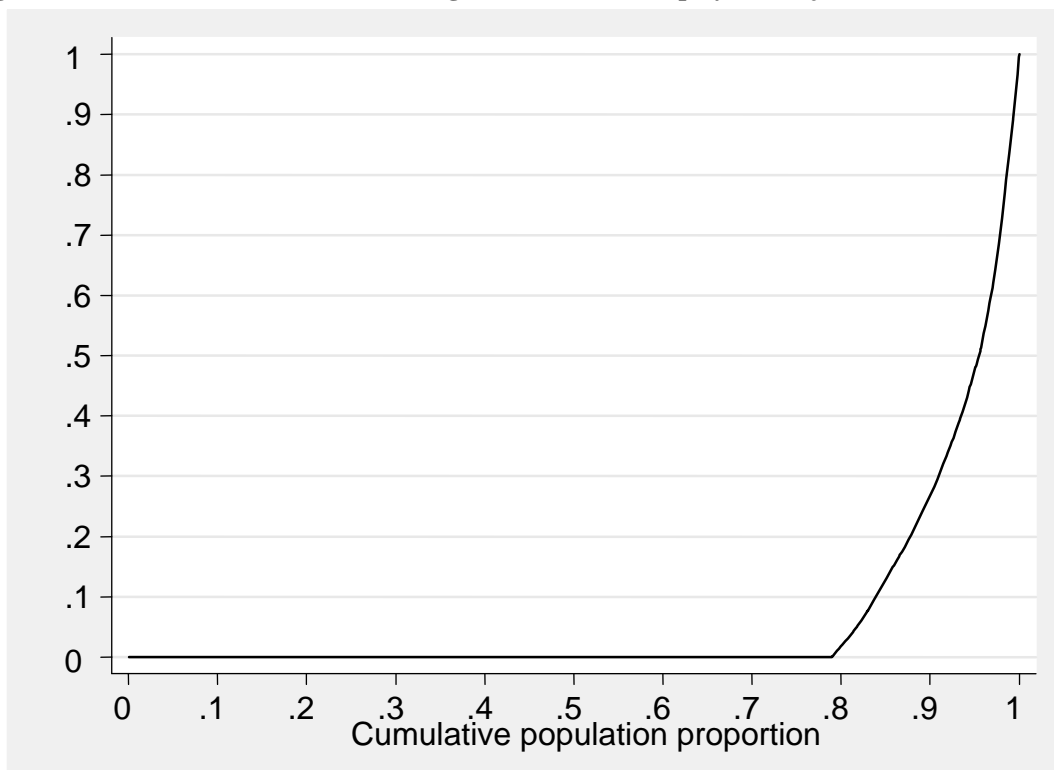


Figure B41: Kernel Density for \$12 low-wage rate – 50 – 99 Employees, (adjusted for casual loading)

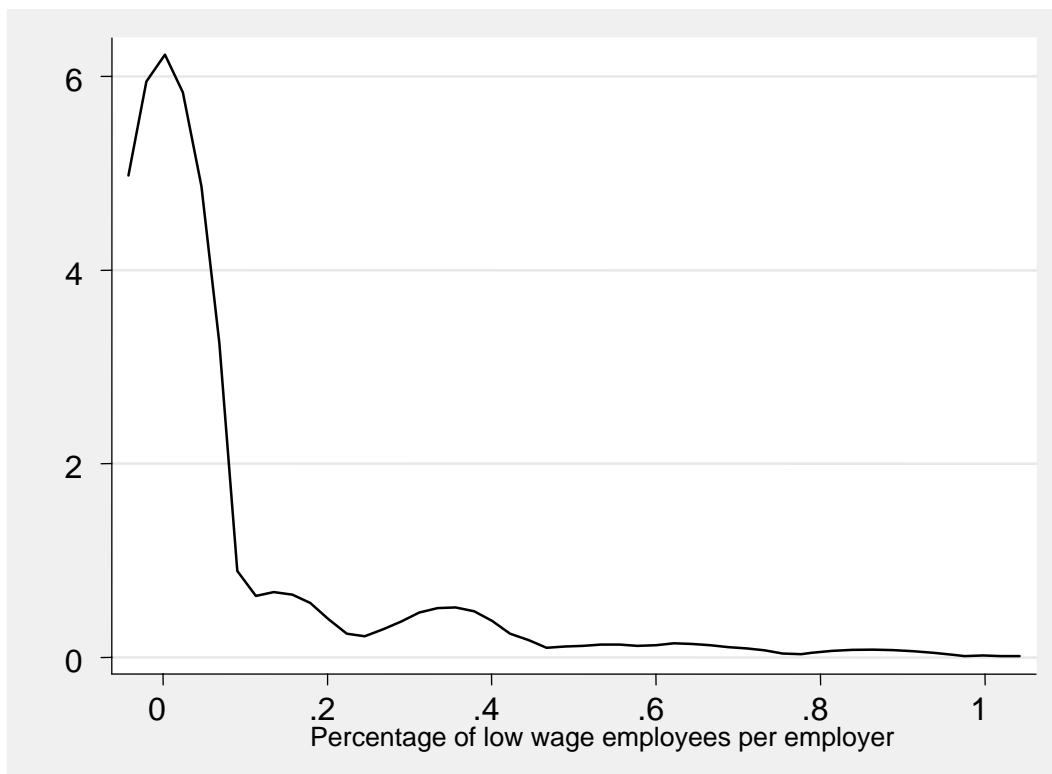


Figure B42: Lorenz Curve for \$12 low-wage rate – 50 – 99 Employees, (adjusted for casual loading)

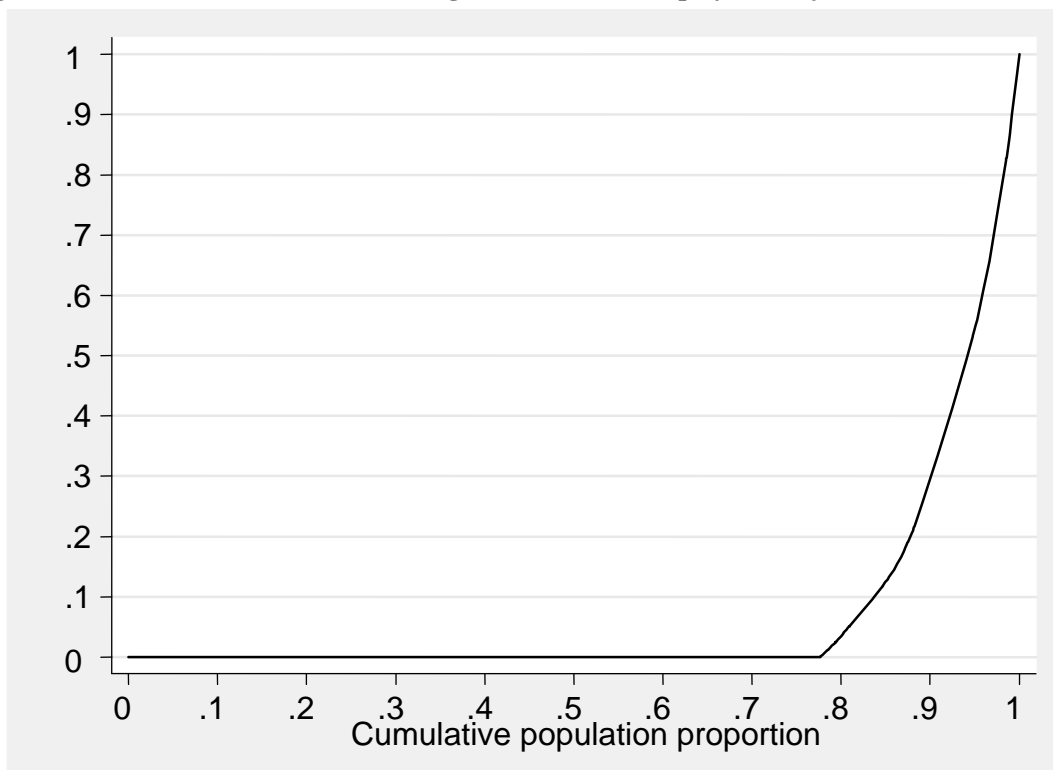


Figure B43: Kernel Density for \$12 low-wage rate – 100 – 499 Employees, (adjusted for casual loading)

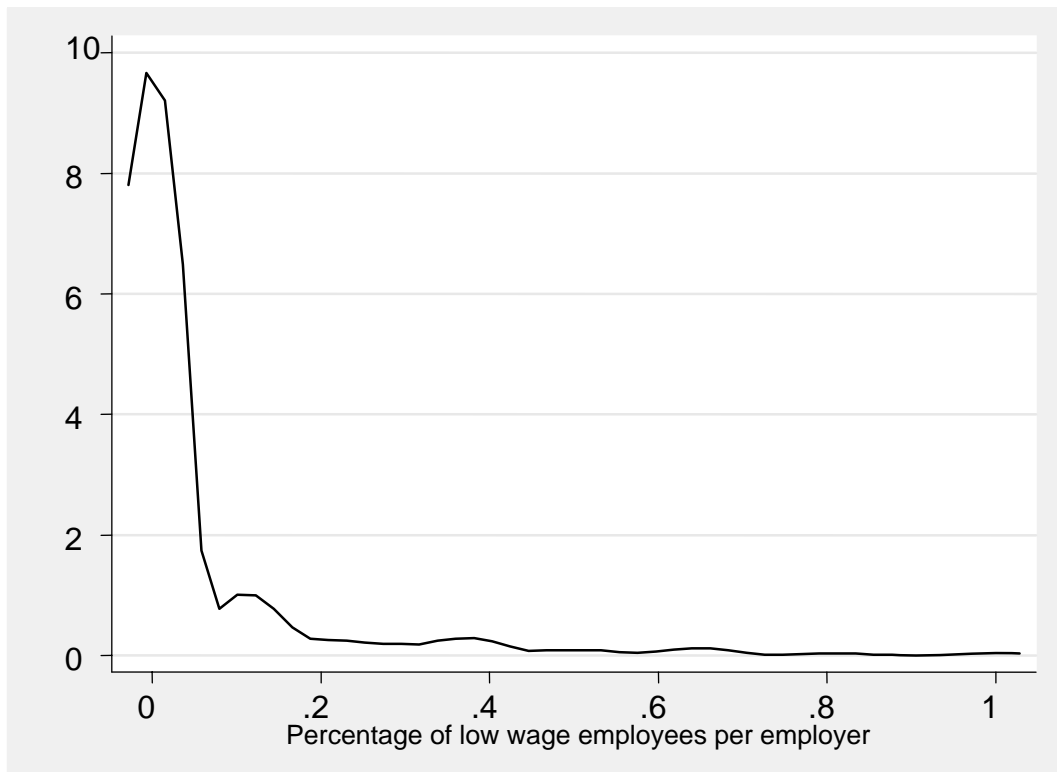


Figure B44: Lorenz Curve for \$12 low-wage rate – 100 – 499 Employees, (adjusted for casual loading)

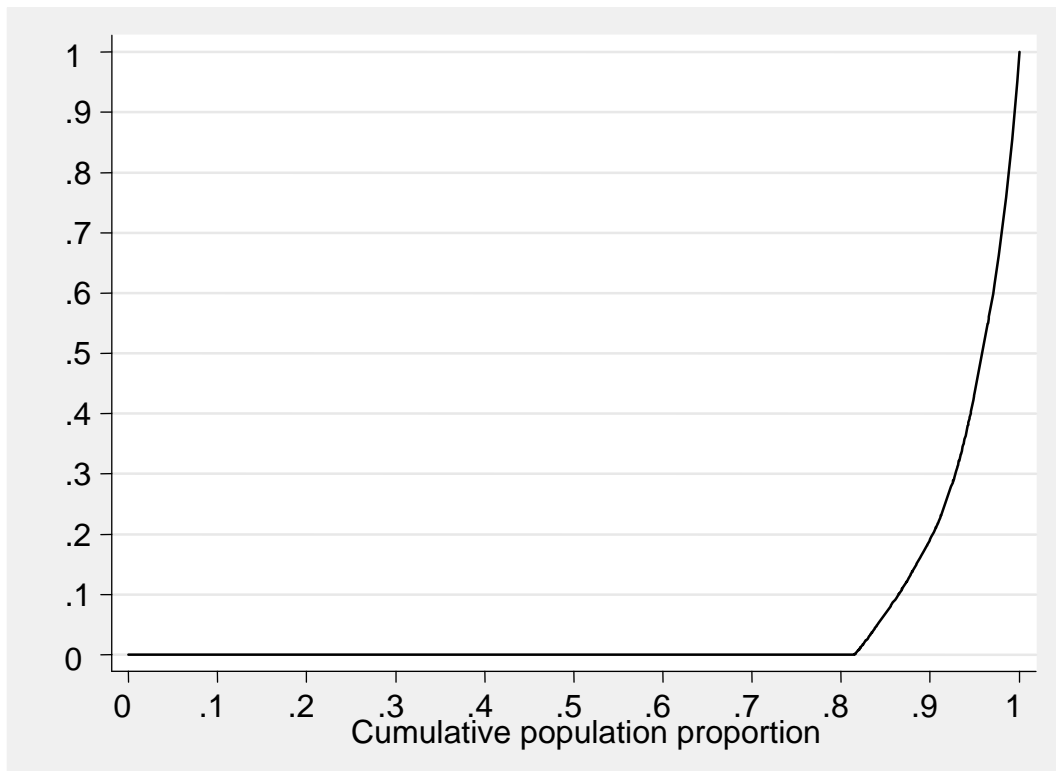


Figure B45: Kernel Density for \$12 low-wage rate – 500 – 999 Employees, (adjusted for casual loading)

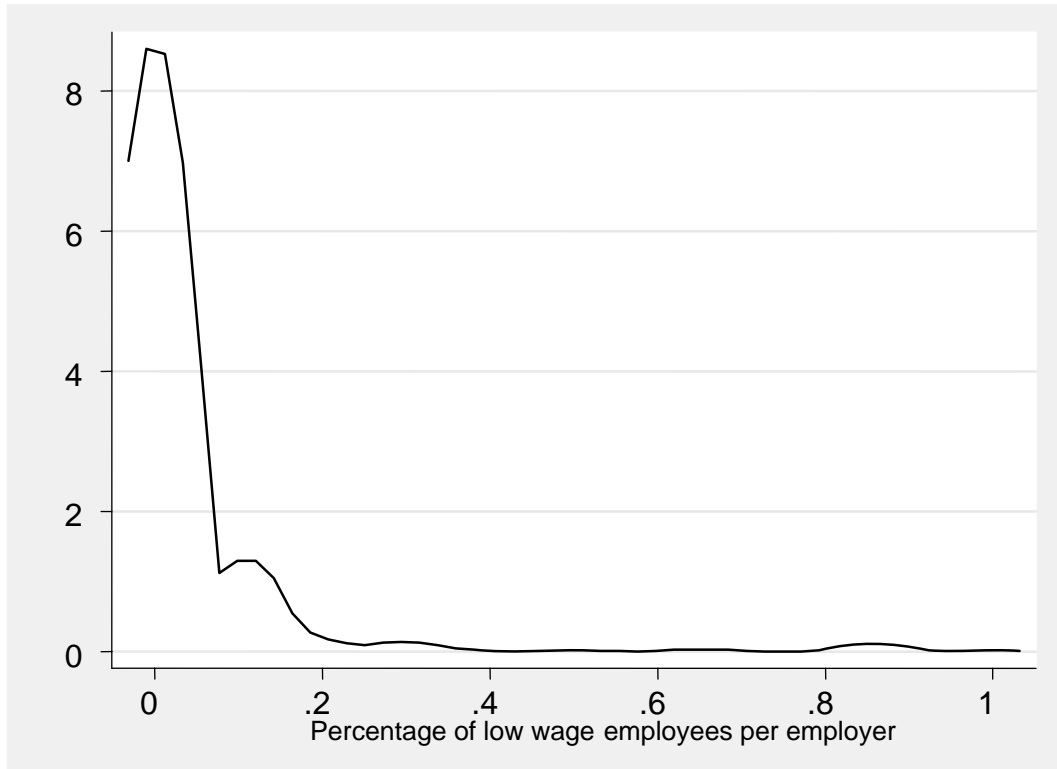


Figure B46: Lorenz Curve for \$12 low-wage rate – 500 – 999 Employees, (adjusted for casual loading)

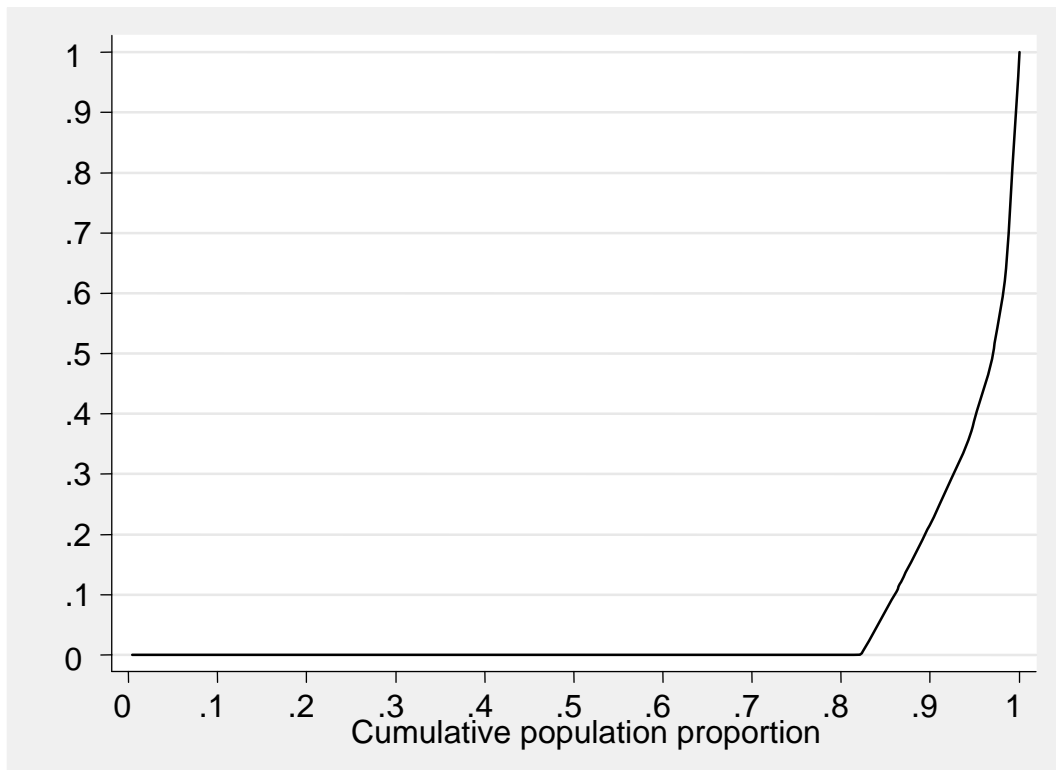


Figure B47: Kernel Density for \$12 low-wage rate – 1000+ Employees, (adjusted for casual loading)

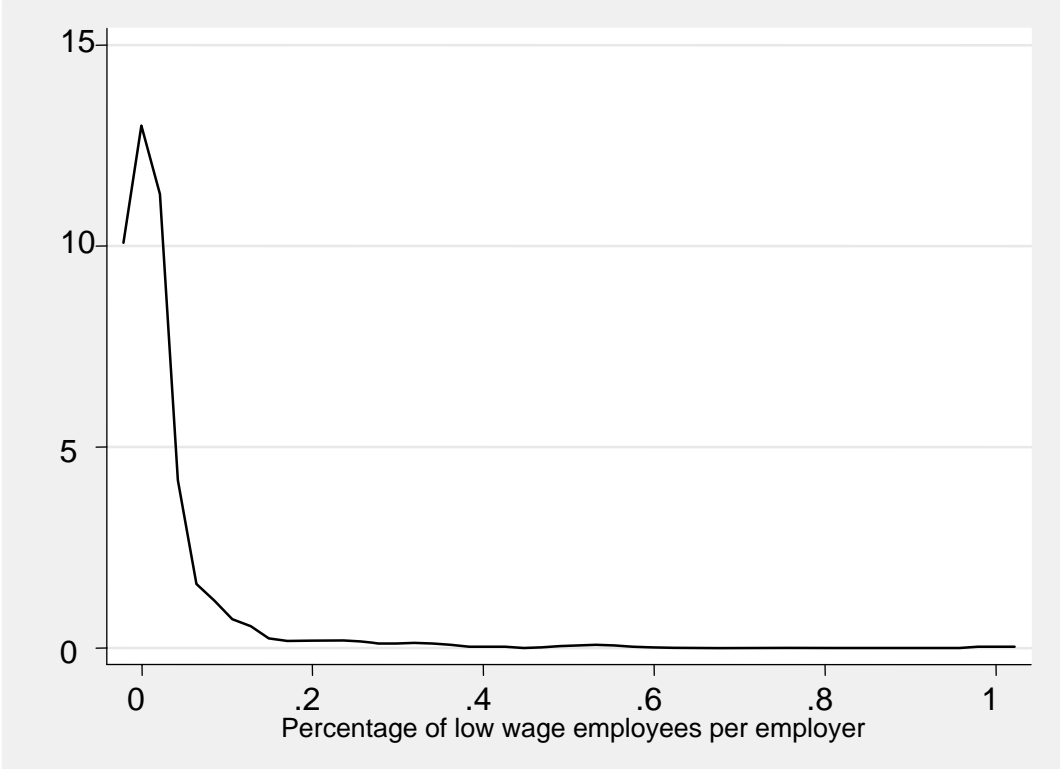


Figure B48: Lorenz Curve for \$12 low-wage rate (Adjusted) – 1000+, (adjusted for casual loading)

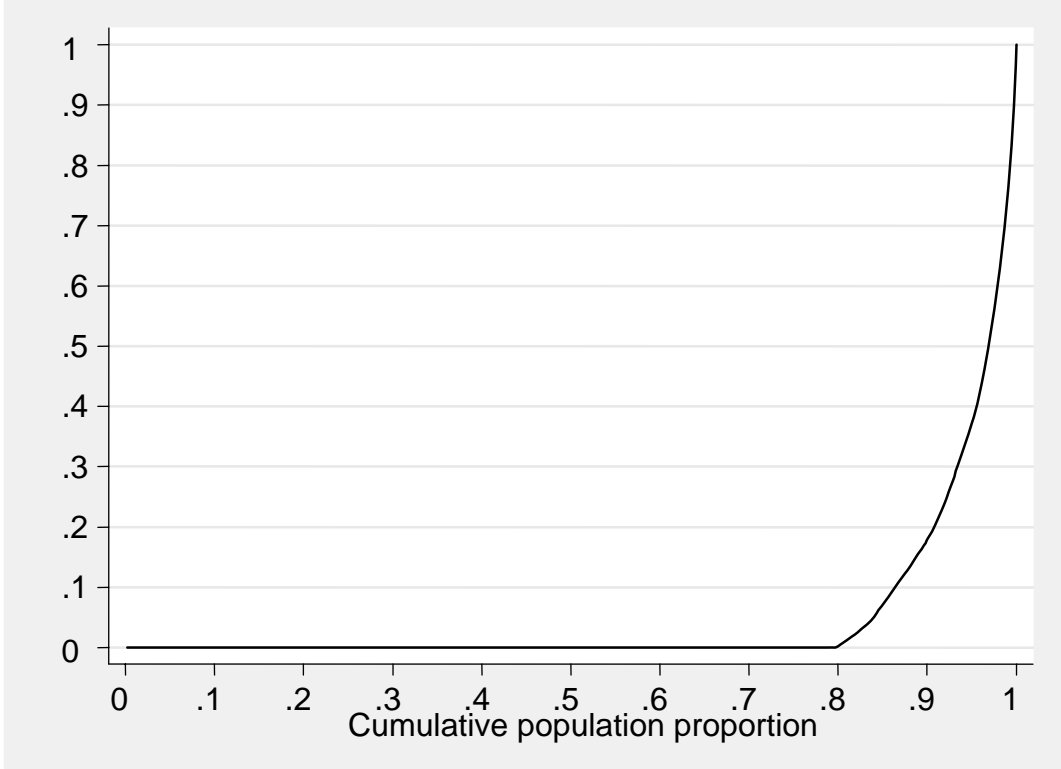


Figure B49: Kernel Density for \$12 low-wage rate – NSW, (adjusted for casual loading)

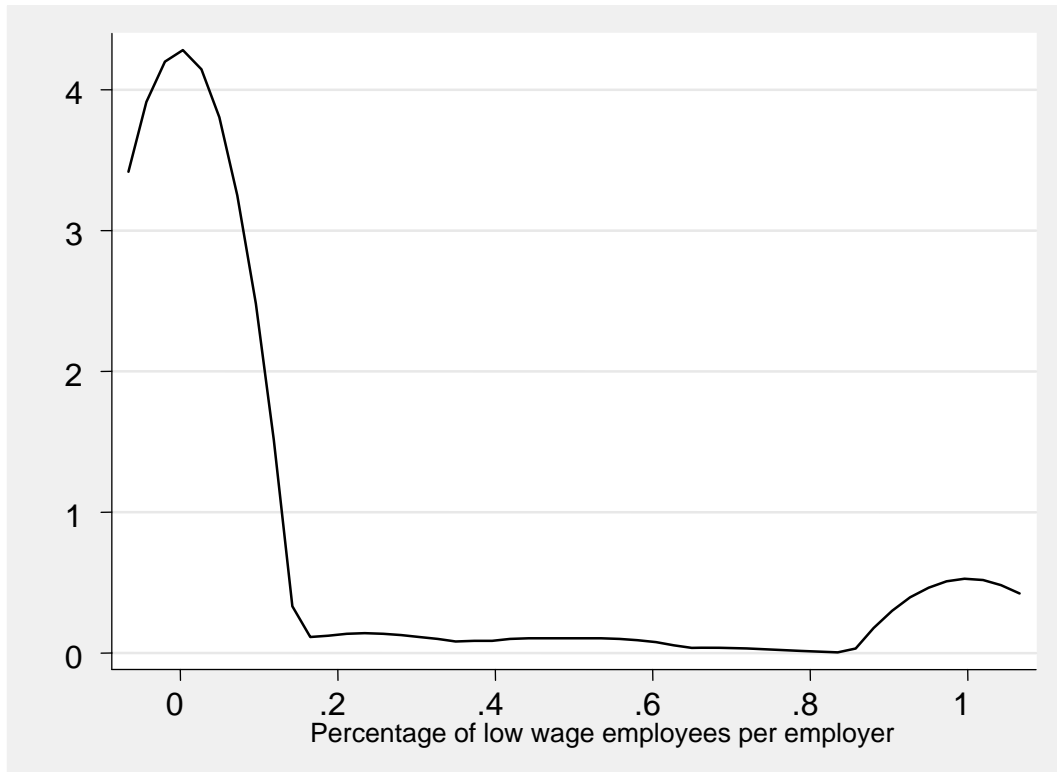


Figure B50: Lorenz Curve for \$12 low-wage rate – NSW, (adjusted for casual loading)

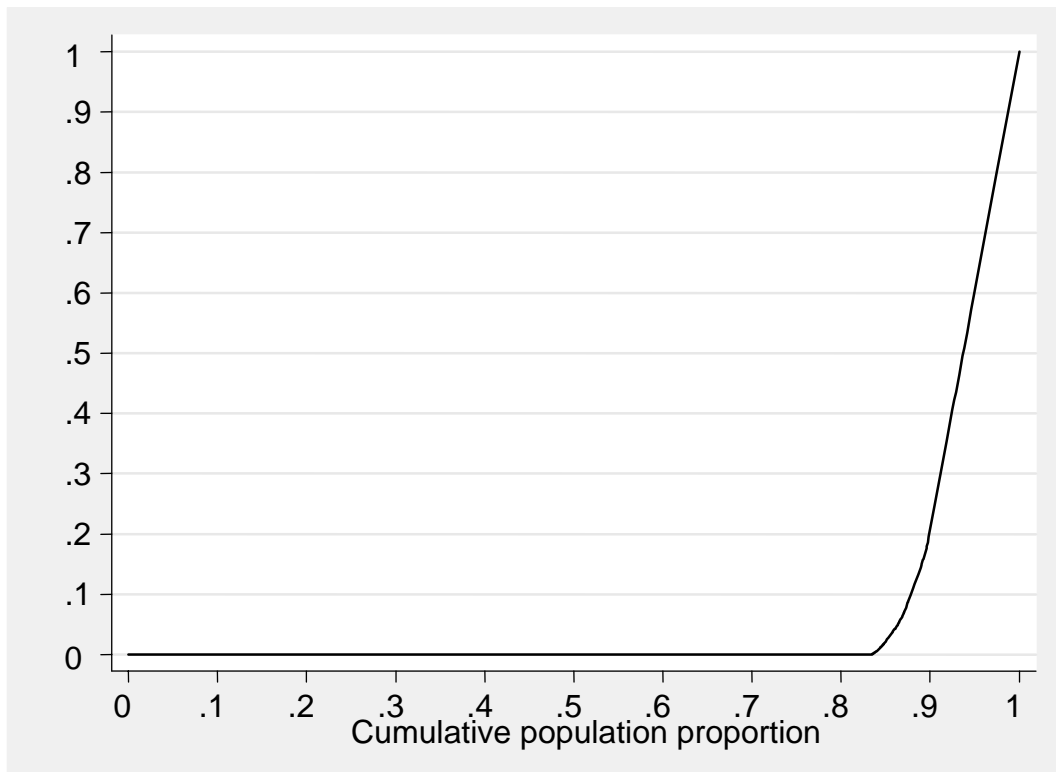


Figure B51: Kernel Density for \$12 low-wage rate – Victoria, (adjusted for casual loading)

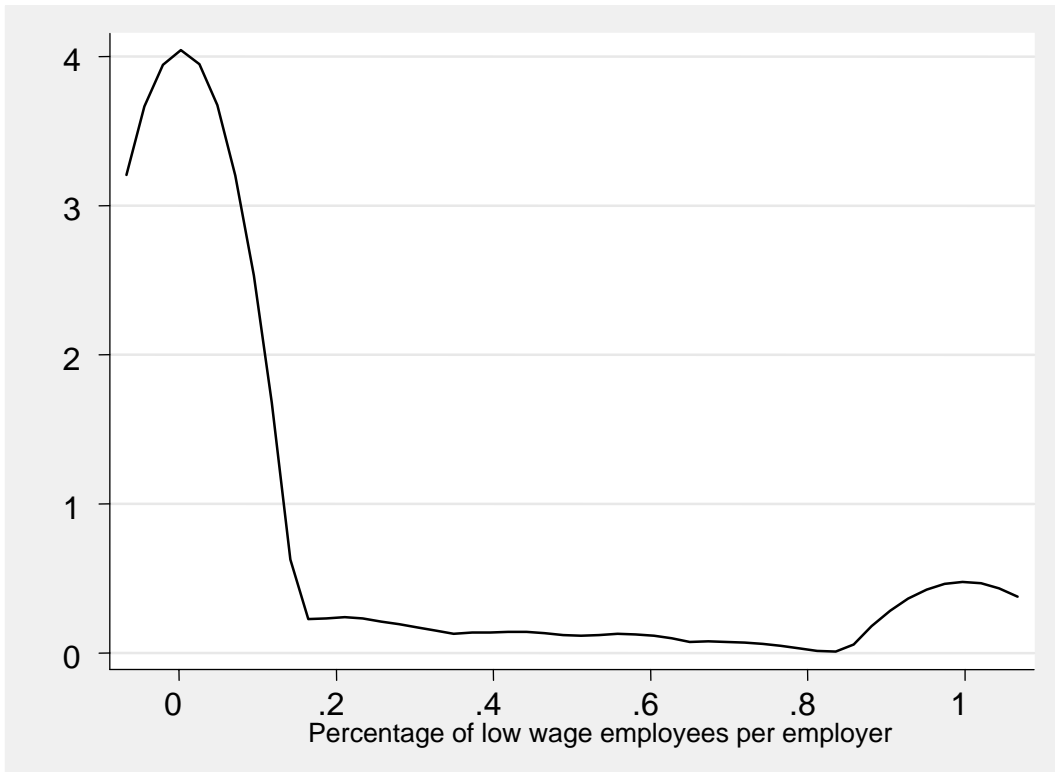


Figure B52: Lorenz Curve for \$12 low-wage rate – Victoria, (adjusted for casual loading)

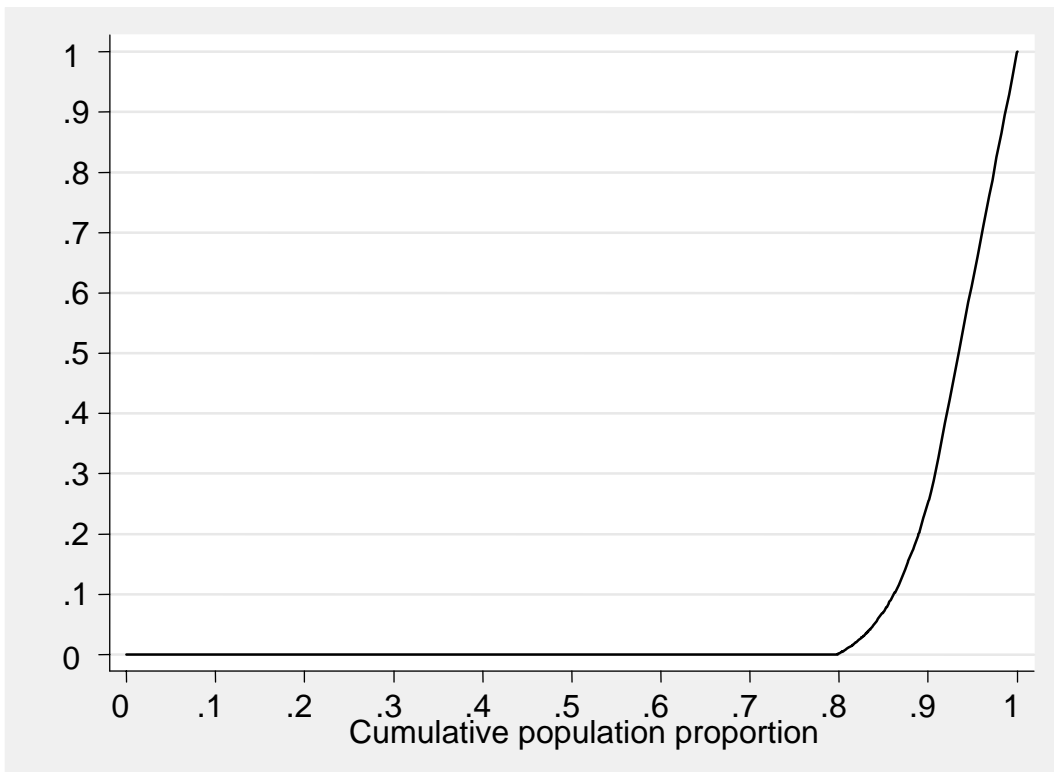


Figure B53: Kernel Density for \$12 low-wage rate – Queensland, (adjusted for casual loading)

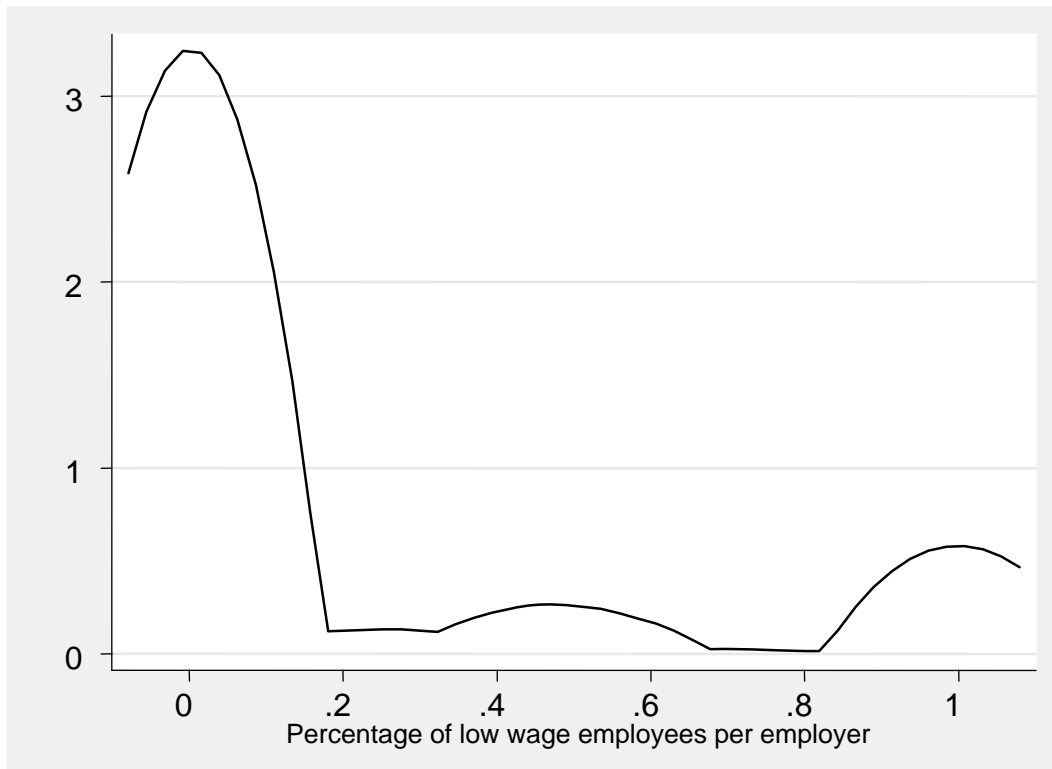


Figure B54: Lorenz Curve for \$12 low-wage rate – Queensland, (adjusted for casual loading)

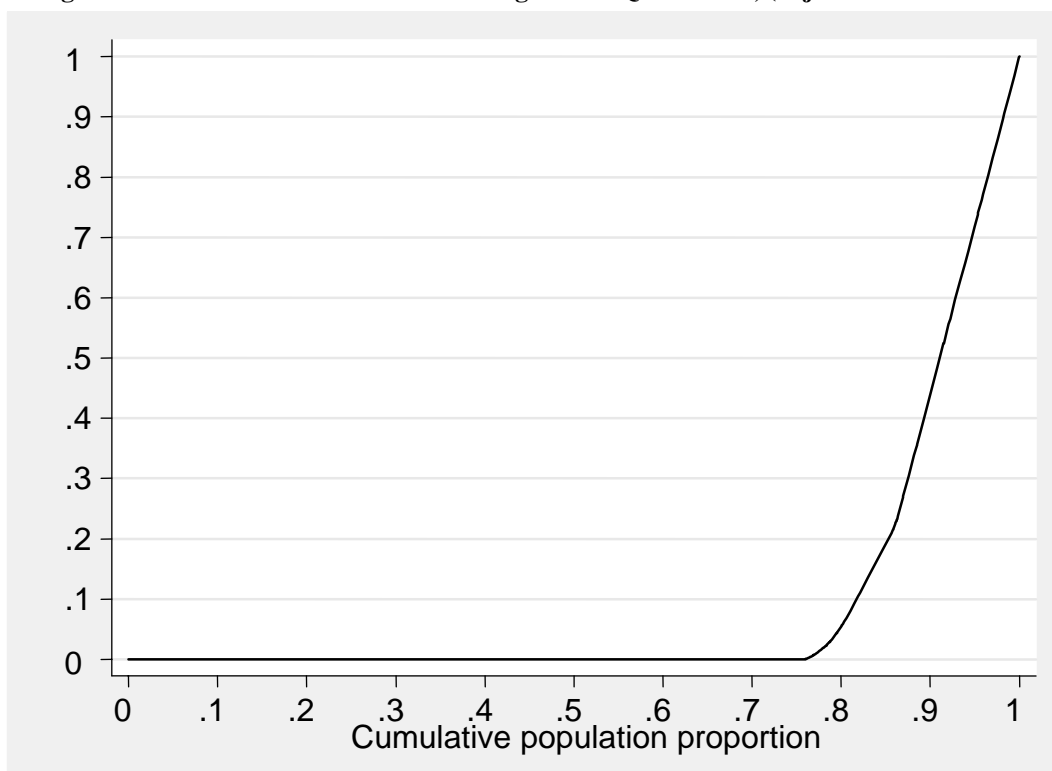


Figure B55: Kernel Density for \$12 low-wage rate – South Australia, (adjusted for casual loading)

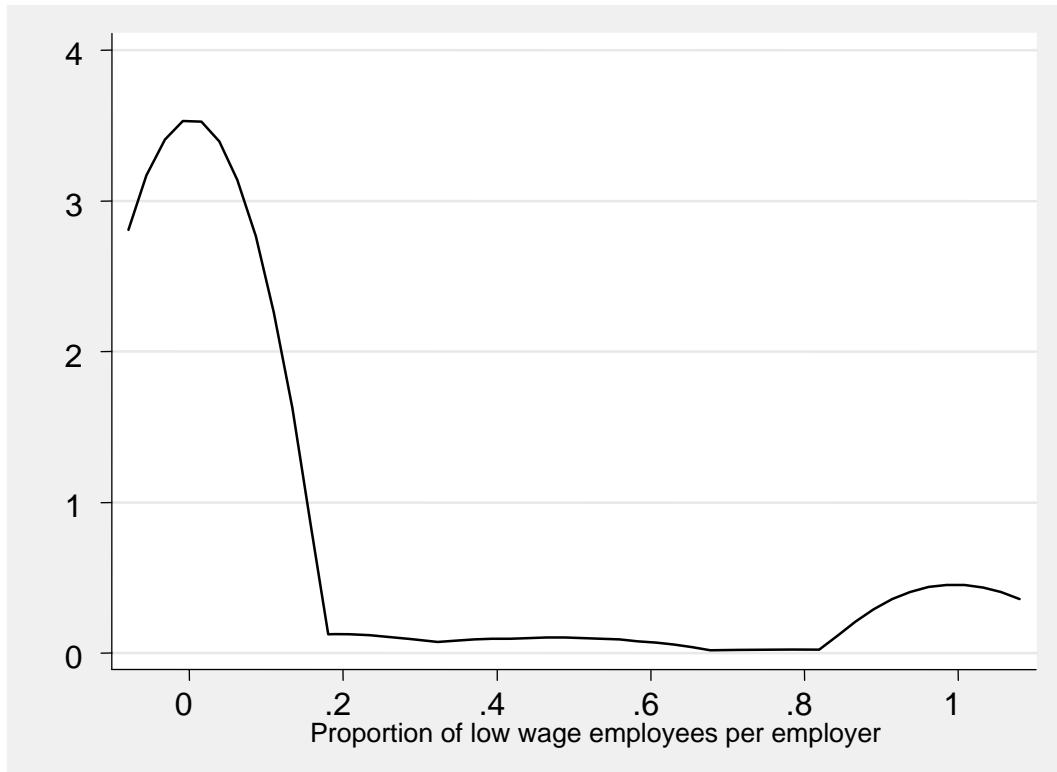


Figure B56: Lorenz Curve for \$12 low-wage rate – South Australia, (adjusted for casual loading)

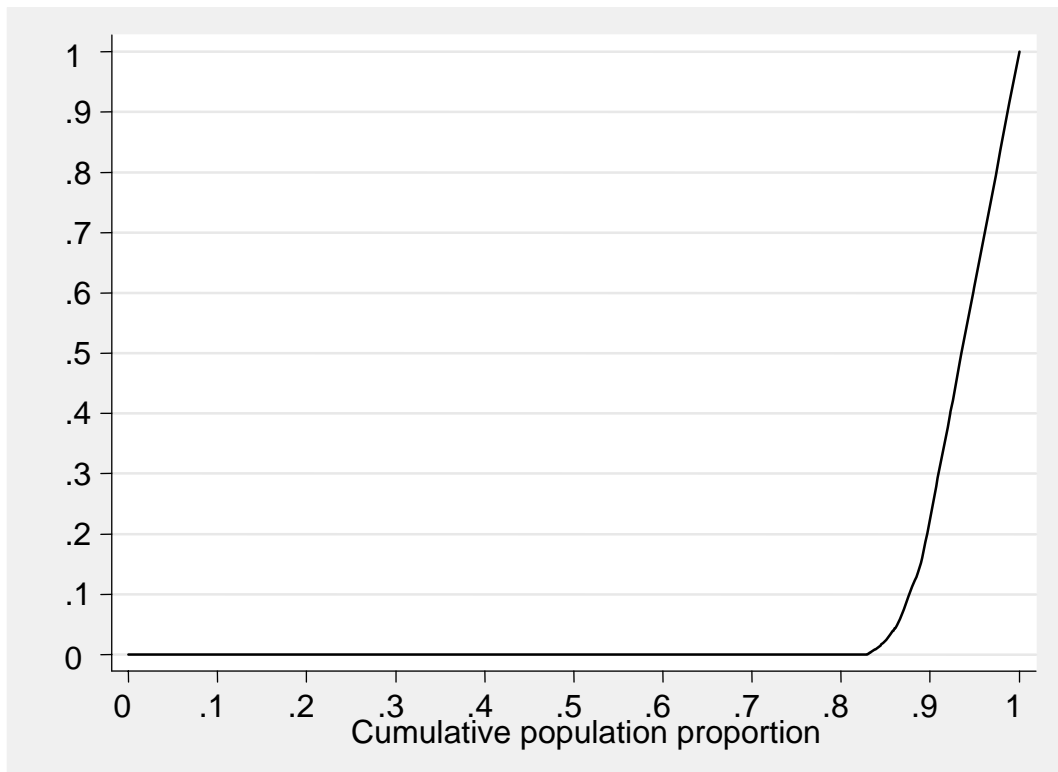


Figure B57: Kernel Density for \$12 low-wage rate – Western Australia, (adjusted for casual loading)

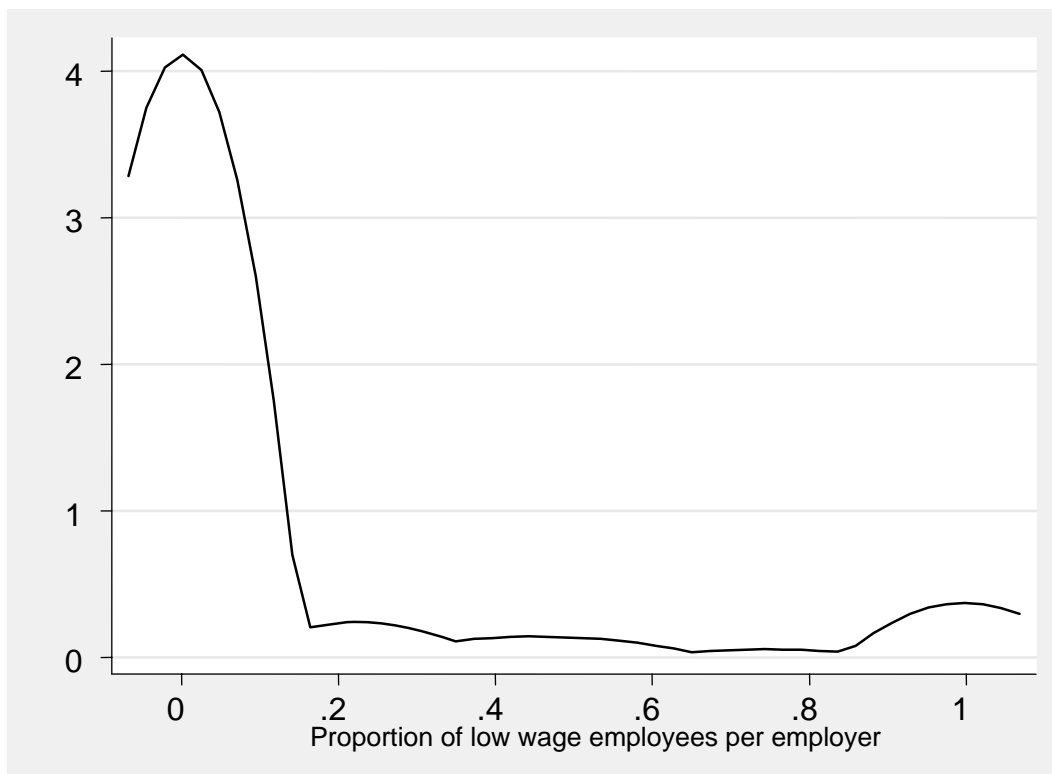


Figure B58: Lorenz Curve for \$12 low-wage rate – Western Australia, (adjusted for casual loading)

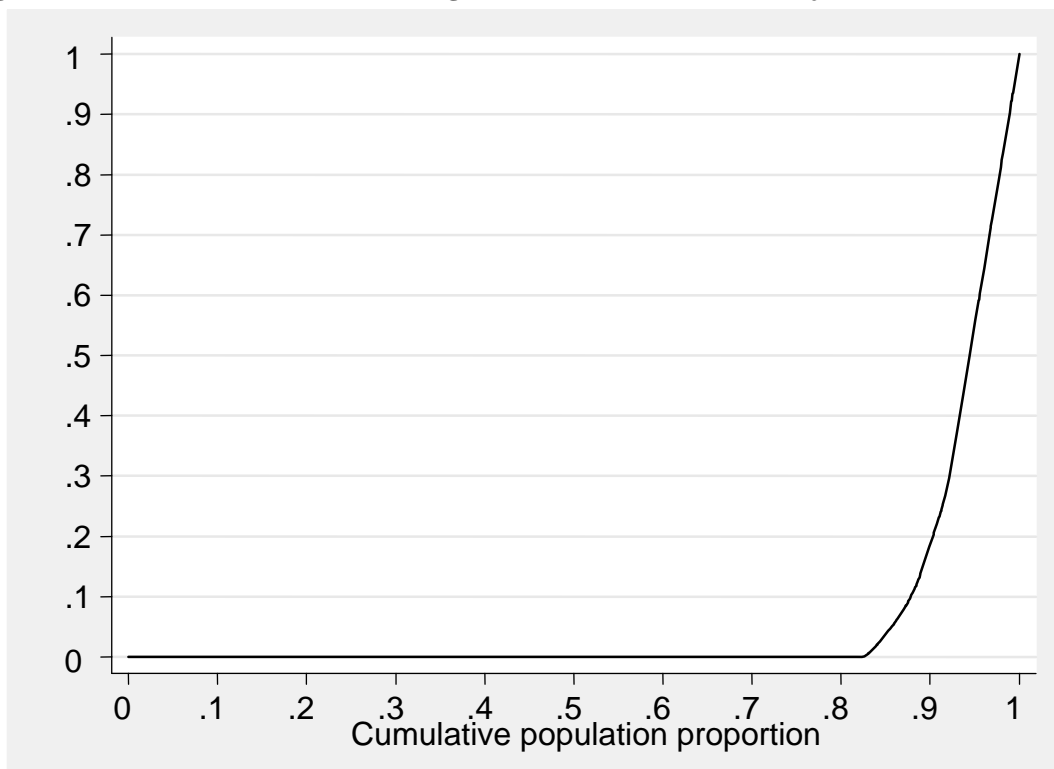


Figure B59: Kernel Density for \$12 low-wage rate – Tasmania, (adjusted for casual loading)

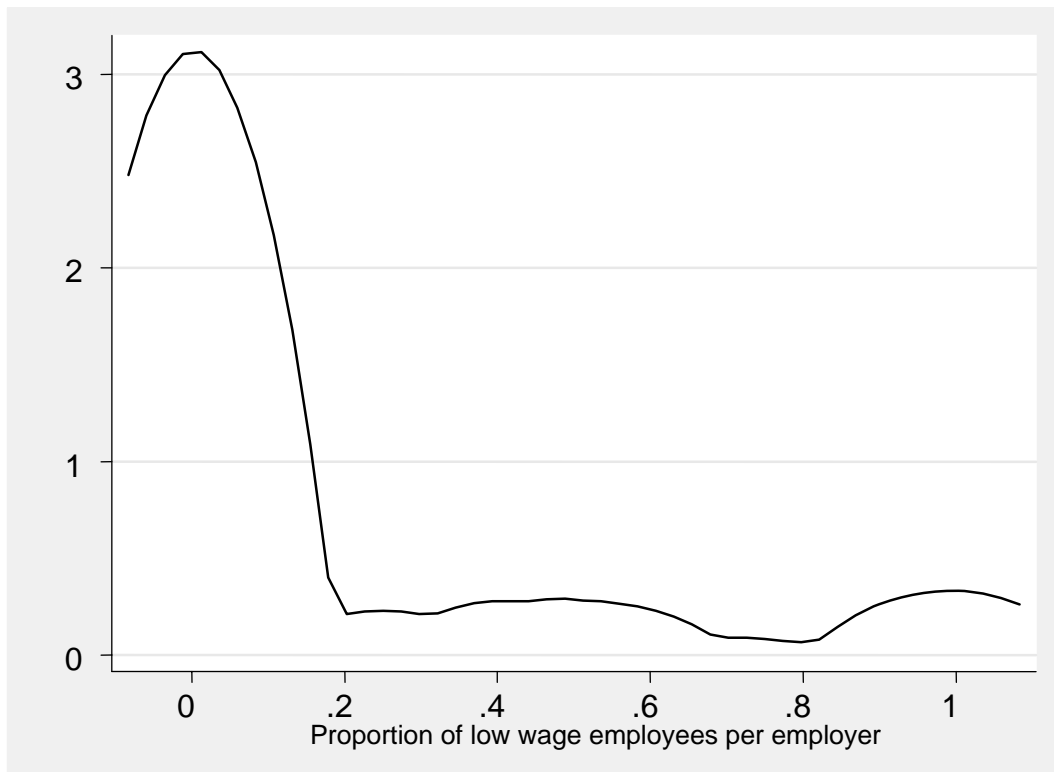


Figure B60: Lorenz Curve for \$12 low-wage rate – Tasmania, (adjusted for casual loading)

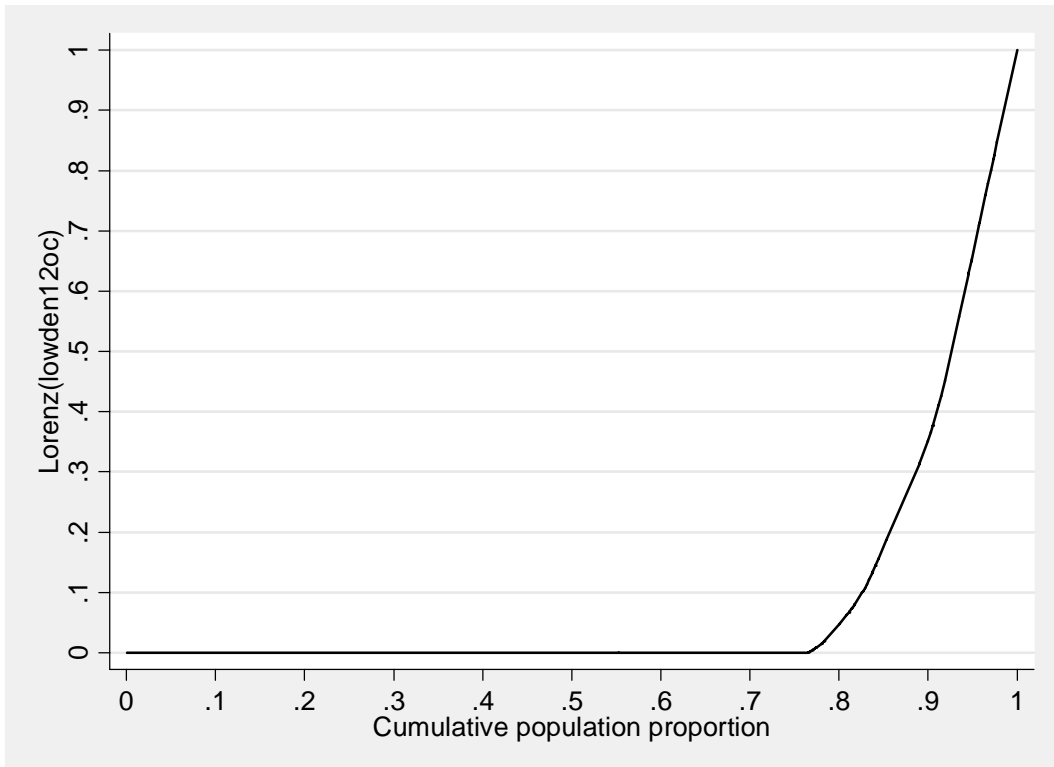


Figure B61: Kernel Density for \$12 low-wage rate – Northern Territory, (adjusted for casual loading)

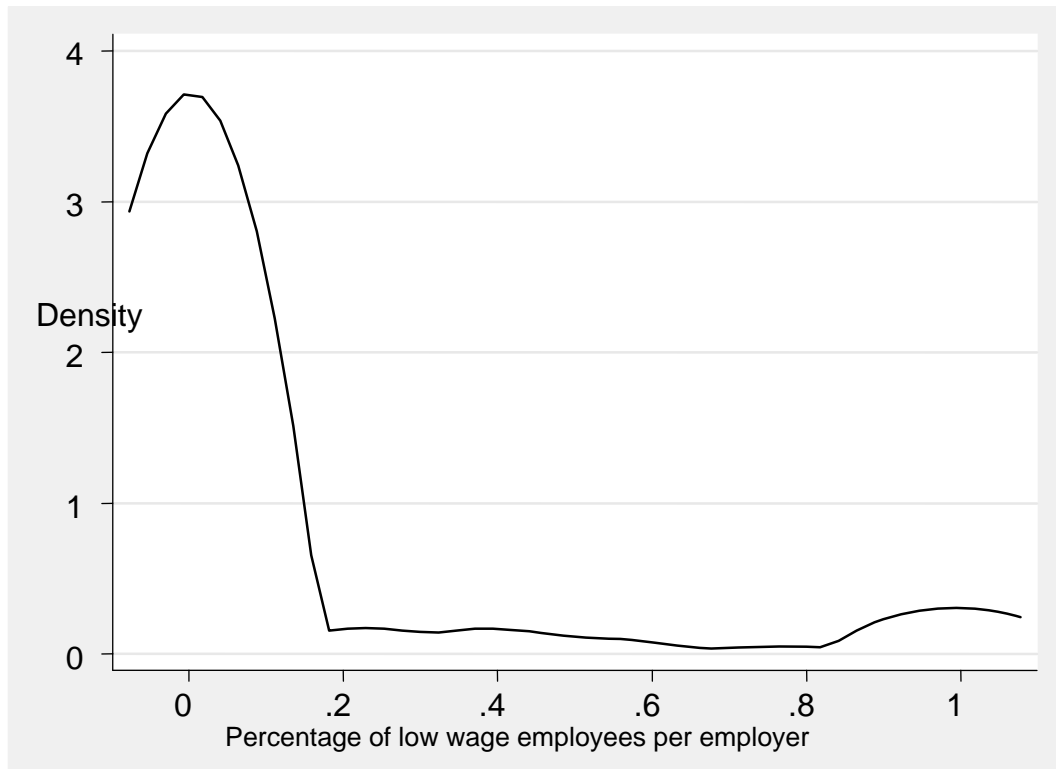


Figure B62: Lorenz Curve for \$12 low-wage rate – Northern Territory, (adjusted for casual loading)

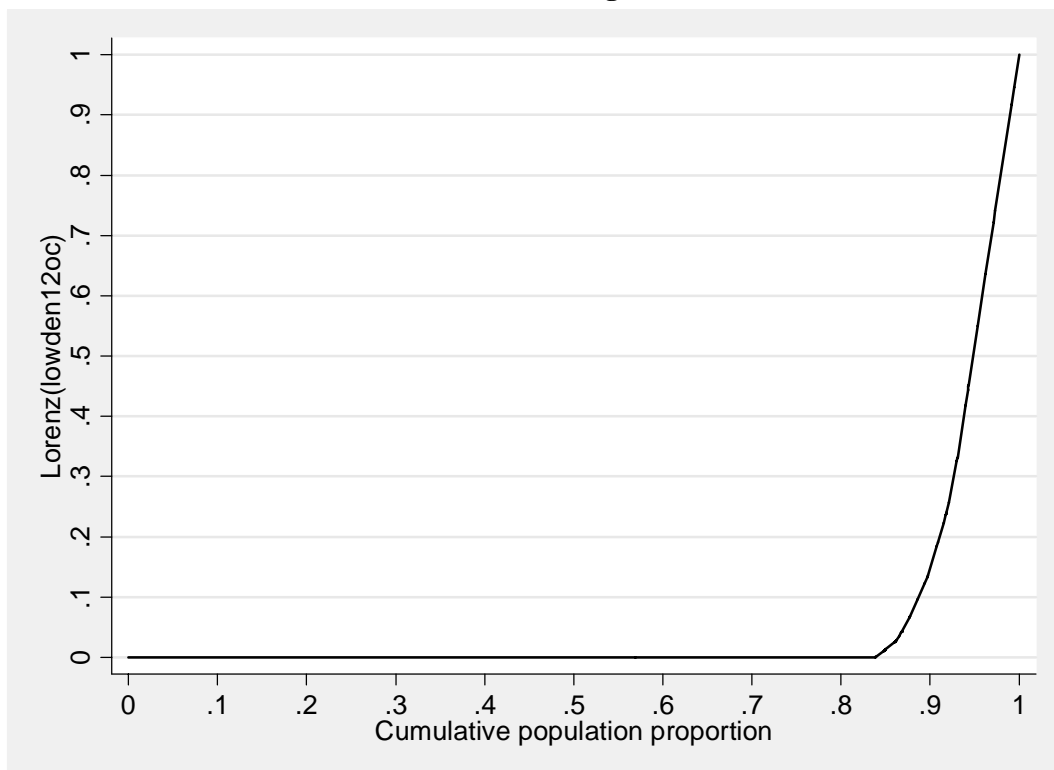


Figure B63: Kernel Density for \$12 low-wage rate – ACT, (adjusted for casual loading)

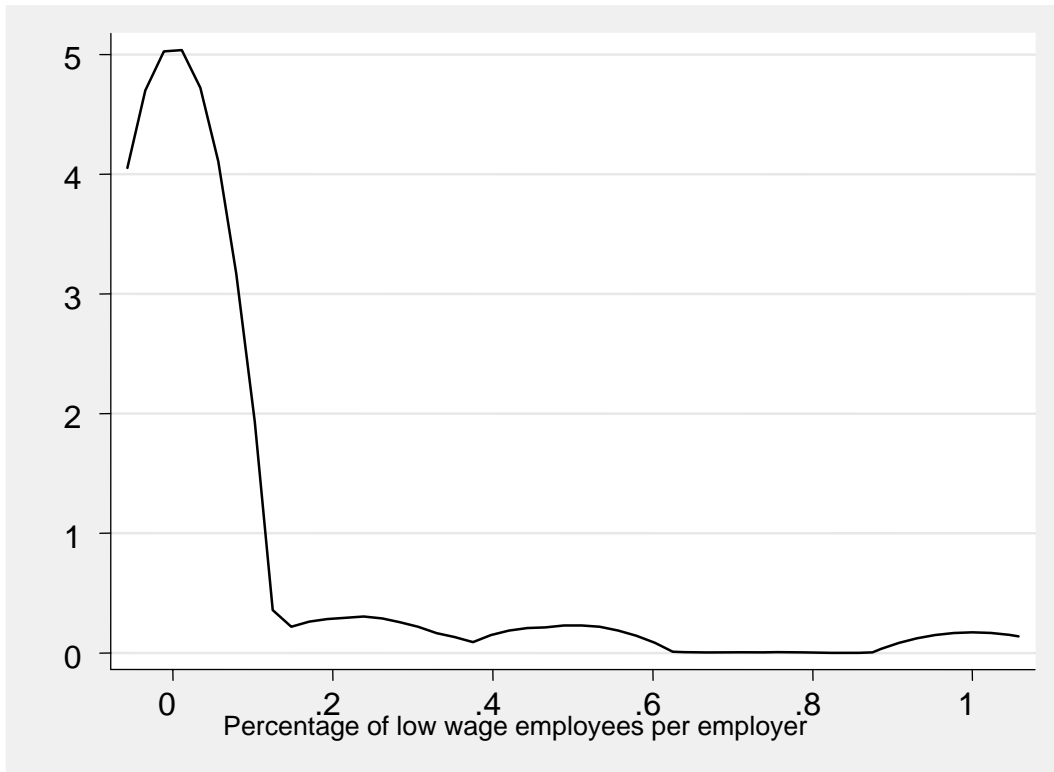
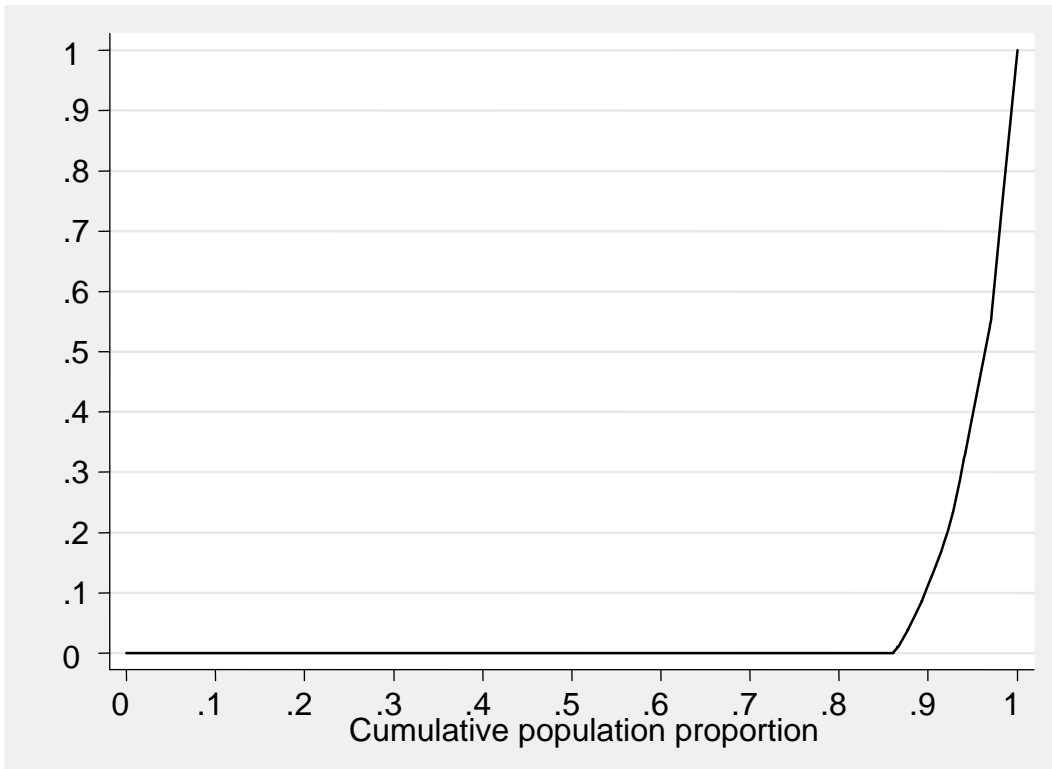


Figure B64: Lorenz Curve for \$12 low-wage rate – ACT, (adjusted for casual loading)



APPENDIX C

Table C1: Gini coefficients - \$12 low-wage rate, adjusted for casual loading, by industry

<i>Industry</i>	
Agriculture, forestry and fishing	-
Mining	0.971
Manufacturing	0.920
Electricity, gas and water supply	0.971
Construction	0.921
Wholesale trade	0.950
Retail trade	0.855
Accommodation, cafes and restaurants	0.843
Transport and storage	0.936
Communication services	0.896
Finance and insurance	0.982
Property and business services	0.921
Government and defence	0.951
Education	0.916
Health and community services	0.843
Cultural and recreational services	0.874
Personal and other services	0.866
Private	0.904
Public	0.928
Total	0.908

Table C2: Gini coefficients - \$12 low-wage rate, adjusted for casual loading by employee size

<i>Employee size</i>	
0 – 19	0.884
20 – 49	0.890
50 – 99	0.901
100 – 499	0.913
500 – 999	0.916
1000 +	0.895
All Firms	0.908

Table C3: Gini coefficients - \$12 low-wage rate, adjusted for casual loading by state

<i>Region</i>	
NSW	0.932
Vic	0.911
Queensland	0.888
South Australia	0.916
Western Australia	0.891
Tasmania	0.881
Northern Territory	0.906
ACT	0.894
Australia	0.908

APPENDIX D

Table D4: Percentage distribution of Employing businesses in Australia: 2004 by Industry

Industry	Number	%
Agriculture, forestry and fishing	74,111	8.9
Mining	2,731	0.3
Manufacturing	61,888	7.4
Electricity, gas and water supply	599	0.1
Construction	113,426	13.6
Wholesale trade	46,800	5.6
Retail trade	126,160	15.1
Accommodation, cafes and restaurants	39,342	4.7
Transport and storage	37,374	4.5
Communication services	8,089	1.0
Finance and insurance	51,708	6.2
Property and business services	171,182	20.4
Education	6,880	0.8
Health and community services	49,008	5.9
Cultural and recreational services	17,300	2.1
Personal and other services	30,480	3.6
Total	837,078	100.0

Table D5: Percentage distribution of Employing businesses in Australia: 2004 by State

State	Number	%
NSW	298,084	35.6
Victoria	214,775	25.7
Queensland	157,628	18.8
South Australia	55,380	6.6
Wester Australia	79,169	9.5
Tasmania	15,690	1.9
Northern Territories	5,464	0.7
ACT	10,888	1.3
Total	837,078	100.0

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