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ANALYSIS OF DISPARITIES IN DISTRICT/CITY IN WEST JAVA PROVINCE 2010-2020

Mazraaten Thoyyibah [1], Ahmad Zaenal Wafiq [2], Zakiyah Hasanah[3], Retta Farah Pramesti[4]
[1] Department of Economics, Universitas Airlangga, Surabaya, Indonesia
[2] Department of Economics, Universitas Mataram , Mataram, Indonesia
[3] Department of Economics, Albukhary International University, Kedah, Malaysia
[4] Department of Accounting, Universitas Padjadjaran, Bandung, Indonesia

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ABSTRACT

One issue that comes up in economic development is regional disparity. The province of West Java faces a number of issues, including disparities in community expenditure and issues with economic growth. The GRDP variables and community expenditure per capita can be used to analyze this issue. Finding and analyzing the degree of regional disparity in West Java Province between 2010 and 2020 is the goal of this study. The Williamson Index and Coefficient of Variation are the analytical tools utilized. Calculations using the Williamson Index and Coefficient of Variation on the GDP variable reveal significant inequality in West Java, whereas calculations on the per capita expenditure variable reveal little variation or equality in each region due to the small values of the Williamson Index and Coefficient of Variation. Therefore, government involvement through budget policies is required in the context of West Javan regencies and cities' GDP per capita since it is necessary to promote economic growth in those whose GDP per capita is still low in comparison to other regencies.

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Corresponding Author:
Mazraaten Thoyyibah, Department of Economics, Airlangga University, Surabaya, Indonesia
Email: mazraaten.thoyyibah-2022@feb.unair.ac.id

1. Introduction

Regional disparities in the infrastructure and natural resources that each region owns contribute to economic development inequity. There are 27 regencies/cities that make up the province of West Java. There are nine cities and eighteen regencies in West Java. Pangandaran became a new regency in 2013, bringing the overall number of regencies/cities to 27. There are undoubtedly a number of issues facing West Java that need to be addressed, such as the issue of economic growth and inequalities in community expenditure. Karawang Regency has the highest

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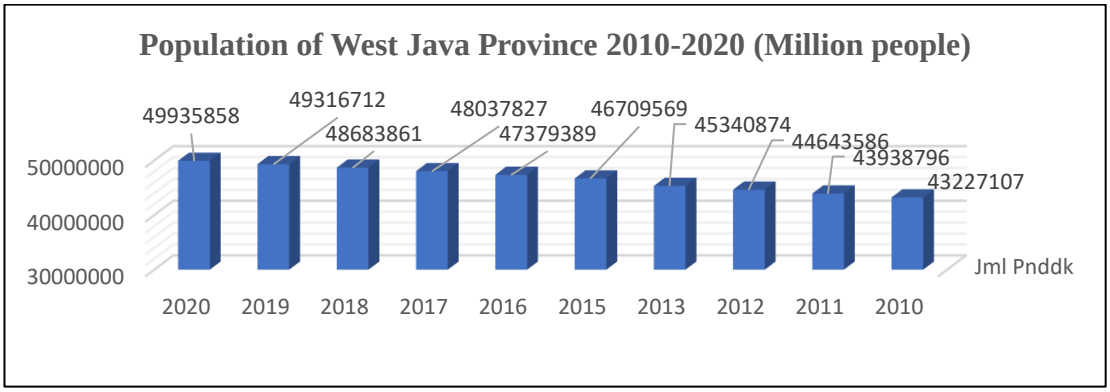
GRDP per capita among the regencies/cities in West Java, according to data from 2010 to 2020. Bekasi, which has the second-highest GRDP per capita after Karawang, comes next. Over the past ten years, the GRDP per capita has generally tended to rise from year to year. Despite certain regions having low GRDP per capita values, this increase undoubtedly indicates a better improvement in the economy. Due to variations in the capacity of natural and human resources, geographical conditions in each place, and sociocultural contexts, this issue is undoubtedly affected by a number of factors. In the meantime, greater economic development in every region is the cause of the long-term rise in GRDP per capita.

Furthermore, it is evident that if we examine the evolution of per capita expenditure of West Java Province's regencies and cities between 2010 and 2020, it has been rising annually. Before the pandemic, in 2019, district/city spending was at its peak for the observation period. In 2020, however, it fell as the virus hampered economic activity. Bandung City spent the most throughout the ten-year observation period, while Tasikmalaya Regency spent the least. Naturally, this is extremely different from Bandung City and other cities/regencies. People's spending is influenced by their income; a high average income will have an impact on people's spending. As was already established, a number of other variables contribute to low income, including geographic conditions, a lack of work options, the potential of natural and human resources, regional regulations, and more.

During the ten years of the observation period, the population of the cities and districts grew as well. Bogor Regency has the most population, according to data from the West Java BPS. The two regencies that contribute most to West Java's population are Bogor and Bekasi. Banjar City, nevertheless, has the smallest population. West Java Province is Indonesia's most populous province, according to data from the BPS and other sources. A graph showing West Java Province's population increase between 2010 and 2020 is shown below:

Figure 1. Population of West Java Province 2010-2020



Source: Central Statistics Agency (Processed)

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The population can also have an impact on regional inequality; if the population is not in line with the supply of jobs, skilled labor, and other resources, the region's economy will suffer. The local government has undoubtedly thought about ways to solve these issues. Furthermore, the government has made numerous attempts to lessen regional inequality. Targeted development initiatives minimize a region's economic inequality by producing outcomes that are perceived at all societal levels. Thus, the goal of this article is to use the Williamson Index and Coefficient of Variation analysis to ascertain the degree of regional inequality in West Java Province between 2010 and 2020.

2. Literatur Review

According to Sjafrizal (2014), Williamson was the first to discover the measure of economic inequality between areas, and he utilized it in his study in the middle of the 1960s. This indicator is essentially a coefficient of variation, which is frequently employed to quantify a difference in statistical research. In honor of Jeffrey G. Williamson, who first employed this method to gauge regional differences in development, the term "Williamson index" was coined. This index is often used to measure regional differences in development, despite its many drawbacks, including its sensitivity to the region definition employed in the calculation.

Regional inequities increase when development is limited to specific or developed regions, according to Williamson (1965), who discussed regional economic development. At a higher level, the balance between developed and underdeveloped regions seems to be important, as evidenced by economic growth. To ascertain the degree of discrepancy across regions—for instance, between provinces in a country, between regencies/cities in a province, or between areas within a regency—the Williamson Index Analysis is utilized.

3. Data and Research Methods

The Williamson index essentially examines the relationship between a region's population and its gross regional product (GRDP) per capita. In general, this index looks at how geographical differences and the economic progress of developed and developing nations relate to one another. The Williamson index formula, as stated by Muta'ali (2015) in Regional Analysis Techniques, is as follows:

$$IW = \frac{\sqrt{\sum_{i=1}^{n}(Y_i - \bar{Y})^2 (P_i/P)}}{\bar{Y}}$$

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Description :

IW= Williamson Index Value

Yi = GDRP/expenditure per capita of Regency I (billion Rupiah)

Y = Average GRDP/expenditure per capita of Province (billion Rupiah)

Pi = Population of Regency i (million people)

P = Population of Province (million people)

The Williamson index gap between regions has a value of 0 < IW < 1, which indicates that a lower or gradually smaller regional gap is present if the value obtained approaches zero, and a larger Williamson index value indicates a larger gap between areas. The gap criteria can be applied in the following ways as a guide:

1.) 0,1 < IW < 0,35 (the level of inequality is low)

2.) 0,35 < IW < 0,50 (the level of inequality is moderate)

3.) IW > 0,50 (the level of inequality is quite high)

This study uses the Coefficient of Variations (CV) formula in addition to the Williamson Index to determine the degree of difference. The CV formula is as follows:

$$\boldsymbol{CV = \frac{\sigma}{\overline{Y}}}$$

Where:

$\boldsymbol{\sigma}$: Standard deviation of GRDP/expenditure per capita (billion Rupiah)

$\boldsymbol{\overline{Y}}$: Average GRDP/expenditure per capita (billion Rupiah)

Greater variety in the data is indicated by a larger CV, whereas greater uniformity is indicated by a smaller CV. In other words, a greater CV value may indicate a high degree of regional disparity, whereas a smaller CV value indicates a low degree of disparity or inequality or progresses toward equality. In comparison to the population average, the coefficient of variation indicates how variable the sample data. This discussion uses the standard deviation of the GRDP per capita computation divided by the average GRDP per capita of the district/city to determine the CV.

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Both analysis techniques will be applied to determine the degree of disparity in West Javan regencies and cities between 2010 and 2020. Each regency or city's population, GDP at current prices, and per capita spending data are needed. The data is then processed and examined using the chosen methodology. The GRDP per capita and per capita expenditure of the West Java Province's population are the two variables used in this study. The Williamson Index and CV are the analysis tools utilized. The Central Statistics Agency of the Province of West Java provided the statistics.

4. Finding and Discussion

4.1 Economic Growth of Districts/Cities in West Java Province

There was a rise in West Java Province's GRDP at constant prices between 2010 and 2020. Every regency and city in West Java saw an increase in GRDP, with 2019 seeing the most growth. That year demonstrated how each region's economy had been expanding quickly for a number of years prior to the epidemic. Therefore, we can draw conclusions about the economic situation in each district or city by examining how the GRDP of an area evolves. Bekasi Regency is among the regencies with the highest GRDP value over the observation period, as can be seen in the table below. Bekasi Regency contributed Rp 242,971.39 billion to the GRDP in 2020. Then, out of all the regencies and cities, Bandung City had the second-highest GRDP. Bandung City contributed Rp 193,144.95 billion to the GRDP. On the other hand, Banjar City had the lowest GRDP, coming in at Rp. 193,144.95 billion. 3,257.76 billion. Table 1 of the West Java Province's GRDP ADHK Regency/City is shown below.

Table 1. GRDP at Constant Prices by Regency/City in West Java Province 2010-2020

Wilayah Jawa Barat	[Seri 2010] PDRB Atas Dasar Harga Konstan Menurut Kabupaten/Kota Provinsi Jawa Barat (Milyar Rupiah)									
	2020	2019	2018	2017	2016	2015	2013	2012	2011	2010
Bogor	154113,6	156876,01	148203,35	139561,45	131760,37	124486,98	110685,28	104286,98	98378,72	92931,57
Sukabumi	46205,28	46628,34	44140,89	41716,23	39447,01	37265,25	33516,82	31767,7	29863,3	28600,53
Cianjur	31792,32	32039,32	30320,21	28538,99	26981,37	25352,13	22883,16	21817,06	20660,19	19696,93
Bandung	81060,97	82547,44	77613,22	73039,45	68804,85	64701,52	57690,59	54468,16	51250,25	48431,75
Garut	38598,43	39092,49	37225,15	35464,91	33803,54	31919,06	29138,48	27815,34	26726,85	25465,22
Tasikmalaya	24344,86	24586,67	23320,61	22063,29	20824,8	19662,49	17991,12	17191,75	16526,57	15853,36
Ciamis	21970,41	22001,24	20878,69	19826,75	18844,97	17779,91	16026,51	15213,67	14433,28	13716,2
Kuningan	16882,76	16864,15	15821,96	14866,62	13977,77	13175,67	11648,54	10962,96	10371,18	9819,54
Cirebon	33304,05	33668,1	32161,84	30623,31	29149,31	27596,25	25042,25	23857,75	22621,72	21496,57
Majalengka	21754,54	21561,72	20006,88	18789,49	17591,79	16590,93	15012,89	14307,43	13490,26	12883,19
Sumedang	23665,01	23932,73	22507,96	21276,7	20029,72	18950,36	17194,51	16400,81	15390,93	14686,78
Indramayu	59200	60153,18	58287,98	57515,01	56706,18	56663,3	52858,95	51389,04	49804,92	47859,83
Subang	28344,32	28672,9	27408,2	26250,72	24976,92	23696,76	21431,37	20588,97	20465,66	19817,22
Purwakarta	45293,24	46278,21	44341,65	42239,3	40169,9	37899,02	34216,42	31934,34	29893,01	28016,62
Karawang	157710,59	163946,85	157317,84	148358,44	141125,54	132453,57	120294,86	111424,08	106174,68	99641,32
Bekasi	242971,39	251502,79	241949,38	228203,6	215928,36	205950,39	186206,59	175279,8	164538,84	154347,8
Bandung Barat	30640,41	31398,35	29888,89	28330,02	26925,88	25486,17	22937,17	21651,88	20419,11	19322,13
Pangandaran	7738,97	7742,87	7308,73	6939,64	6602,73	6271,1	5733,33	5463,15	5194,13	4978,27
Kota Bogor	32162,74	32295,73	30413,57	28654,97	27002,25	25298,6	22484,67	21203,57	19944,17	18775,59
Kota Sukabumi	8534,72	8664,02	8209,92	7780,42	7379,48	6985,33	6301,68	5978,32	5650,62	5321,93
Kota Bandung	193144,95	197642,89	185084,18	172851,96	161227,83	149580,38	129005,46	119632,25	110234,44	102154,91
Kota Cirebon	16648,21	16812,49	15817,18	14893,14	14077,05	13269,24	11863,88	11309,38	10677,43	10093,71
Kota Bekasi	67619,24	69406,53	65845,09	62202,01	58831,08	55456,07	49741,13	46907,33	43946,08	41283,49
Kota Depok	48135,93	49076,58	45978,89	42981,28	40263,23	37529,48	32805,89	30703,25	28412,63	26601,85
Kota Cimahi	22340,56	22856,04	21192,6	19907,13	18882,16	17876,44	16072,36	15212,15	14318,6	13571,61
Kota	15430,02	15746,12	14859,11	14027,95	13225,25	12370,62	10961,87	10324,52	9758,07	9291,51
Kota Banjar	3251,76	3221,45	3067,11	2919,72	2772,84	2624,24	2373,51	2250,8	2137,13	2026,32
Provinsi Jawa	**1453380,72**	**1490959,69**	**1419624,14**	**1343662,14**	**1277312,17**	**1206891,27**	**1093543,55**	**1028409,74**	**965622,06**	**906685,76**
Kab/Kota	**1472859,28**	**1505215,21**	**1429171,08**	**1349822,5**	**1277312,18**	**1206891,26**	**1082119,29**	**1019342,44**	**961282,77**	**906685,75**

Source: Central Statistics Agency

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4.2 GRDP per Capita of Regency/City in West Java Province

The following is a table showing the development of GRDP per capita of regencies/cities in West Java.

Table 2. GRDP per Capita of Regency/City Areas in West Java Province 2010-2020

Wilayah Jawa Barat	PDRB PER KAPITA (yi) PROVINSI JAWA BARAT 2010-2020									
	2020	2019	2018	2017	2016	2015	2013	2012	2011	2010
Bogor	25,31335	26,29761	25,37335	24,42016	23,58174	22,8012	21,27705	20,55679	19,89963	19,30494
Sukabumi	18,70493	18,90641	17,9384	17,00276	16,13628	15,3089	13,91654	13,2742	12,56611	12,127
Cianjur	14,04051	14,15745	13,41234	12,64696	11,98652	11,29822	10,28312	9,854631	9,386716	9,007218
Bandung	21,15643	21,86526	20,87897	19,96922	19,1304	18,30771	16,94054	16,30938	15,65932	15,11074
Garut	14,63927	14,907	14,28221	13,69916	13,15566	12,52355	11,64417	11,22893	10,907	10,51271
Tasikmalaya	13,86611	14,01646	13,31621	12,62695	11,95264	11,32633	10,45875	10,05115	9,723897	9,393047
Ciamis	18,283	18,40837	17,56535	16,77417	16,03296	15,21364	13,87011	13,2433	12,63605	12,07705
Kuningan	15,53002	15,60334	14,72499	13,91744	13,16315	12,48385	11,17056	10,57696	10,0671	9,590266
Cirebon	15,07221	15,35321	14,77881	14,18024	13,60211	12,97927	11,96433	11,48877	10,97929	10,51598
Majalengka	17,96843	17,89304	16,68213	15,74022	14,80785	14,03503	12,82599	12,28397	11,64075	11,17144
Sumedang	20,49934	20,76773	19,57374	18,55901	17,53767	16,66298	15,28231	14,67084	13,86467	13,33249
Indramayu	34,06951	34,80142	33,90439	33,63463	33,34059	33,50111	31,6013	30,89403	30,10964	29,0937
Subang	17,57704	17,96745	17,35775	16,80036	16,15583	15,49428	14,3173	13,90481	13,97068	13,67453
Purwakarta	46,60331	48,06163	46,50828	44,77647	43,06836	41,12316	38,10288	36,06827	34,25744	32,60833
Karawang	66,53085	69,64859	67,34471	64,04453	61,47177	58,25774	54,0558	50,66126	48,87687	46,47049
Bekasi	62,31606	66,81998	66,63607	65,2006	64,04156	63,44719	62,0252	60,77031	59,41789	58,09354
Bandung Barat	17,86632	18,47075	17,75179	16,99961	16,33468	15,64122	14,43696	13,8139	13,21524	12,69459
Pangandaran	19,27548	19,39189	18,40123	17,56435	16,80867	16,05985	14,84822	14,2301	13,60685	13,11735
Kota Bogor	28,54022	29,04081	27,72866	26,50761	25,36168	24,14168	22,1957	21,30839	20,41805	19,59716
Kota Sukabumi	25,80875	26,36005	25,16204	24,02936	22,98209	21,95837	20,20922	19,38464	18,54462	17,68001
Kota Bandung	76,94702	78,8085	73,92403	69,19786	64,73396	60,27896	52,47318	48,93701	45,37935	42,35115
Kota Cirebon	51,65086	52,65223	50,01053	47,53256	45,33876	43,15284	39,31978	37,84616	36,07471	34,42532
Kota Bekasi	21,98506	23,1053	22,45819	21,75177	21,10755	20,42713	19,35154	18,77346	18,1066	17,52196
Kota Depok	19,37694	20,39058	19,73061	19,06455	18,47096	17,8194	16,71909	16,2281	15,58409	15,15247
Kota Cimahi	36,01034	37,2064	34,86709	33,11789	31,78702	30,47571	28,14818	27,0332	25,83769	24,87898
Kota Tasikmalaya	23,23847	23,7313	22,4213	21,20935	20,05023	18,81529	16,82104	15,92853	15,14511	14,51828
Kota Banjar	17,74019	17,59298	16,77676	16,00829	15,24368	14,4646	13,20774	12,59344	12,03427	11,48018
Provinsi Jawa Barat	29,10495	30,23234	29,16006	27,97092	26,95924	25,8382	24,11831	23,036	21,97653	20,97494
Kab/Kota	29,49502	30,5214	29,35616	28,09916	26,95924	25,8382	23,86631	22,8329	21,87777	20,97493

Source: Central Statistics Agency

A region's gross regional product (GRDP) per capita is calculated by dividing its total GDP by the number of inhabitants. The value of GRDP per capita, or per person, is displayed as GDP per capita at constant prices. In addition to providing a picture of the average revenue obtained by each citizen of a region over the course of a year, GRDP per capita can be used as a measure of prosperity and to illustrate the overall economic development of each sector from year to year. The ability of a district or city to produce income and production components that

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contribute to the province's production process is thus demonstrated by the GRDP as a whole. The GRDP per capita development of West Javan districts and cities is displayed in the table below.

Tasikmalaya Regency has the lowest GRDP per capita, at Rp 13.86611 billion, according to the results of the computation of GRDP per capita of Regency/City in West Java Province. This regency's gross regional product (GRDP) per capita in 2019 was Rp 14.01646 billion. Then, with Rp 14.04051003 billion, Cianjur Regency is the second-lowest region after Tasikmalaya. The Bandung City area is the area with the highest GRDP per capita value, which is Rp 76.94702 billion. As we know, Bandung City is the center of the capital city of West Java. So that the high GRDP per capita value is natural, because most economic activities are carried out in the city of Bandung, so it affects the income of each person or per capita.

4.3 Expenditure per Capita of Regency/City in West Java Province

Table 3. Data on Regency/City Expenditure in West Java Province 2010-2020

Wilayah Jawa Barat	DATA PENGELUARAN PER KAPITA PENDUDUK JAWA BARAT (yi)									
	2020	2019	2018	2017	2016	2015	2013	2012	2011	2010
Bogor	10317	10683	10323	9901	9537	9368,39	9040,52	9000,3	8960,07	8951,96
Sukabumi	8823	8973	8618	8263	8077	7848,53	7800,04	7700,49	7683,98	7658,57
Cianjur	7980	8290	7874	7300	7074	6876,62	6694,05	6552,73	6495,68	6430,92
Bandung	10201	10502	10203	9854	9580	9375,21	8977,74	8845,58	8797,01	8740,07
Garut	7876	8099	7597	7270	7079	6875,09	6354,52	6233,12	6195,46	6149,57
Tasikmalaya	7852	8092	7761	7250	7081	6934,28	6818,31	6699,36	6663,99	6620,25
Ciamis	9288	9557	9190	8658	8432	8295,76	8147,07	8007,33	7951,48	7887,57
Kuningan	9459	9673	9297	8736	8580	8516,1	8348,43	8248,4	8231,37	8205,41
Cirebon	10342	10670	10212	9650	9463	9261,3	9002,26	8904,64	8889,96	8866,25
Majalengka	9521	9822	9416	8833	8594	8477,14	8193,77	8048,58	7987,42	7918,34
Sumedang	10217	10406	10153	9569	9339	9279,32	8828,26	8698,75	8652,78	8598,41
Indramayu	9859	10090	9633	9014	8866	8768,97	8644,13	8404,05	8355,61	8298,87
Subang	10790	11012	10715	10206	10012	9830,96	9266,49	9115,48	9048,46	8973,49
Purwakarta	11614	11819	11372	10941	10732	10549,58	10492,35	10332,65	10110,61	9684,48
Karawang	11315	11856	11277	10703	10379	10216,85	9755,43	9671,03	9524,89	9441,37
Bekasi	11241	11610	11155	10790	10435	10322,5	10207,28	10040,09	9945,54	9880,93
Bandung Barat	8455	8684	8329	8002	7698	7522,14	7112,25	6975,56	6788,49	6702,17
Pangandaran	9084	9423	8968	8588	8312	8265,02	8199,66	0	0	0
Kota Bogor	11564	11825	11348	10940	10662	10576,37	10488,49	10439,59	10265,35	10147,93
Kota Sukabumi	10999	11204	10609	10188	9819	9729,44	9608,86	9466,86	9411,19	9294,11
Kota Bandung	16887	17254	16630	16033	15805	15608,85	14957,1	14762,53	14699,89	14628,63
Kota Cirebon	11800	11930	11397	11100	10824	10732,45	10563,12	10369,39	10331,61	10285,09
Kota Bekasi	15776	16157	15755	15378	15236	15115,83	14475,41	14342,49	14186,71	14163,91
Kota Depok	15281	15696	15262	14727	14560	14424,49	14160,63	14079,53	13839,01	13747,59
Kota Cimahi	12025	12448	11921	11353	11141	11011,88	10622,25	10473,53	10428,29	10363,93
Kota Tasikmalaya	10263	10414	9855	9497	9145	8784,81	8157,51	8013,43	7908,85	7827,7
Kota Banjar	10535	10705	10329	9987	9815	9475,6	9401,63	9219,22	9120,7	9051,3
Provinsi Jawa Barat	**289364**	**296894**	**285199**	**272731**	**266277**	**262043**	**254318**	**242645**	**240474**	**238519**
Kab/Kota	**10717,2**	**10996,1**	**10562,9**	**10101,1**	**9862,11**	**9705,31**	**9419,17**	**8986,84**	**8906,46**	**8834,03**

Source: Central Statistics Agency

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According to the West Java Province's per capita expenditure data for the population of regencies and cities, Bandung City has the highest expenditure of any area over the 2010–2020 observation period. Between 2010 and 2019, Bandung City's per capita spending increased steadily. In contrast, Bandung City residents' spending dropped by Rp 1 billion in 2020, from Rp 17,254 billion to Rp 16,887 billion. This is consistent with the previously explained GRDP per capita data. Both per capita GRDP and per capita expenditure are greatest in Bandung City.

Using indications of the percentage of spending on food and non-food items, expenditure data can show broad trends in household consumption. The ratio of household spending to total spending can be used to gauge the population's economic well-being; the lower the proportion of total spending on food, the higher the welfare level. A person's shifting spending habits will be impacted by changes in their income. The amount spent on things other than food increases with income. Accordingly, spending trends can be utilized as a gauge of population welfare, with shifts in composition serving as a sign of welfare level changes (Evita Retno Ningrum, 2020).

5. Sub-Chapter of Result and Discussion

5.1 District/City Disparities in West Java Province

5.1.1 Inequality based on the Calculation of GRDP per capita in 2010-2022

After examining the growth of West Java Province's regencies' and cities' GDP per capita from 2010 to 2020, inequality was calculated using the Williamson index and the coefficient of variation. The Williamson Index technique of calculating GDP per capita yields a comparatively high figure. High inequality is indicated by a number above 0.50, as seen in Figure 2. Every year, the Williamson Index number varies; in 2010, the IW value was 0.669, and in 2020, it was 0.654. In 2012, the IW value reached its greatest point at 0.695. After that, it fell and then rose once more, indicating that the West Java region's GRDP per capita discrepancy has fluctuated with a significant degree of inequality during the last ten years.

When PDRB per capita is measured using the coefficient of variation, the results of the calculation using the coefficient of variation, or CV, indicate that the value of the CV was 0.628 in 2010 and grew by 0.629 in 2011. In 2013, the highest value was 0.638. Every year, the CV value varies, occasionally rising and occasionally falling. According to the Coefficient of Variation (CV) criteria, the more varied the data, the higher the computation result or value. A significant CV value can be regarded as indicating a high degree of inequality or discrepancy between locations. The Williamson Index (IW) and Coefficient of Variation (CV) calculation results are shown in the following image.

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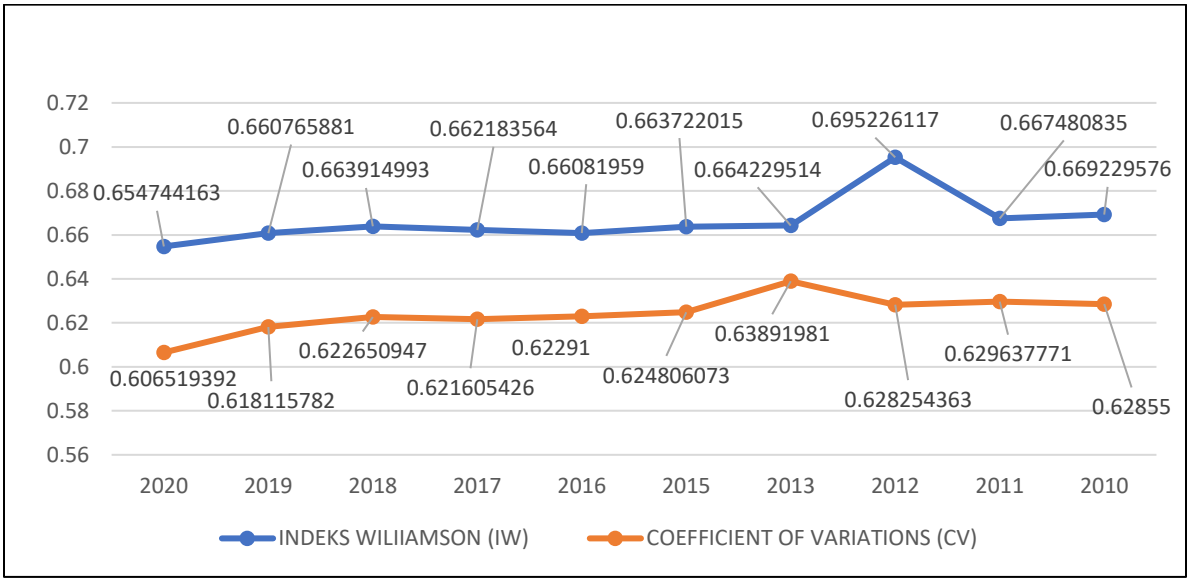
Figure 2. Results of Calculating GRDP per Capita Using the IW and CV Methods



Source: Central Statistics Agency (Processed)

Based on the GRDP per capita of the West Javan population, calculations using the Williamson Index and Coefficient of Variations reveal that the rate of inequality in each part of the region is fairly high. Each region has a varied GRDP per capita of the people, as was previously explained. Some regions have high GRDP per capita, while others have low GRDP. One measure of a region's economic development success is its gross regional product (GRDP) per capita. A region's capacity to manage its natural resources can be characterized by its GRDP per capita. As a result, the potential of the region's natural resources and production factors greatly influence the quantity of GRDP generated by each location. The amount of GRDP per capita varies by location due to the restrictions in providing these parameters (Prasasti, 2006).

5.1.2 Inequality based on Per Capita Expenditure 2010-2020

Calculated relies on the Williamson Index (IW) and Coefficient of Variation (CV), which were used in the previous computation of GRDP per capita, to calculate per capita expenditure in the Regency/City in West Java Province. The IW and CV outcomes for 2010–2020 based on per capita expenditure are shown in the graph below.

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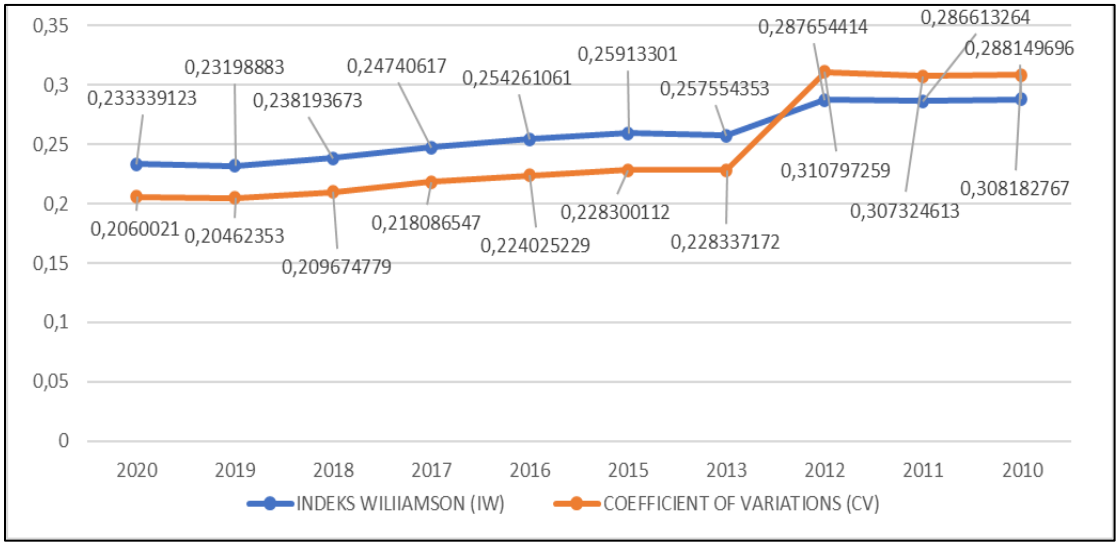
Figure 3. Results of calculating Expenditure per Capita using the IW and CV methods in 2010-2020



Source: Central Statistics Agency (Processed)

According to the Williamson Index computation findings from 2010 to 2020, there was a reduction, indicating that inequality fell year. It was 0.308 in 2010 and 0.233 in 2022. Given that the Williamson Index criteria span from 0.1 to 0.35, this number is rather tiny, indicating that inequality is minimal when considering per capita spending in West Javan regencies and cities during the observation period. According to the Williamson Index computation findings from 2010 to 2020, there was a reduction, indicating that inequality fell year. It was 0.308 in 2010 and 0.233 in 2022. Given that the Williamson Index criteria span from 0.1 to 0.35, this number is rather tiny, indicating that inequality is minimal when considering per capita spending in West Javan regencies and cities during the observation period. Another way to view this number is that it indicates that per capita spending is equal across all regions. Additionally, a minor figure—specifically, an average of 0.2—is displayed by the Coefficient of Variation computation. The 2010 CV was 0.28. In this instance, the local government is still able to effectively maintain inequality or disparity; in other words, the difference is minimal when compared to per capita spending. After talking about per capita spending, we may once more observe how disparate the levels of spending are throughout different regions. For example, as compared to other cities, Bandung has the greatest amount of expenditure. As a result, we can observe that each region's spending is determined by its revenue and the geographic location of its inhabitants. In addition, the high per capita spending may be due to the region's population.

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6. Conclusion

There are a total of 27 regencies/cities in West Java, as determined by the Central Statistics Agency of West Java Province's PDRB ADHK data on population and expenditure per capita. According to the PDRB, population and spending per capita rose between 2010 and 2020, but in 2020, the pandemic caused a decline. In addition to the per capita expenditure variable, for which data is already accessible, the variables used in this work are the manually derived PDRB per capita. The Williamson Index (IW) and the Coefficient of Variation (CV), which measures the degree of inequality in the Regencies/Cities in the West Java Province, are used to calculate these two variables. According to the findings of the two-variable, two-method calculation, the West Java region exhibits high levels of inequality as determined by the PDRB per capita Williamson index and CV. In the meantime, because the IW and CV values are tiny, the computation results utilizing the Williamson index per capita expenditure variables and CV either lead to equality in each location or indicate minimal discrepancies.

Regarding the GDP per capita of West Javan regencies and cities, government action through budgetary policies is required in order to boost economic growth in those regions where GDP per capita is still low in comparison to other regencies. The budget of the Regional Government (Pemda) can be directed toward projects that are anticipated to promote economic development in the cities and regencies. The budget for education is one example of a government investment that is anticipated to hasten this increase, particularly those associated with boosting human capital. The workforce's quality is also very low due to Indonesia's comparatively low level of education, which contributes to low productivity and a slow rate of convergence of GDP per capita.

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