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GREEN TECHNOLOGIES AND PRACTICES — AUGUST 2011

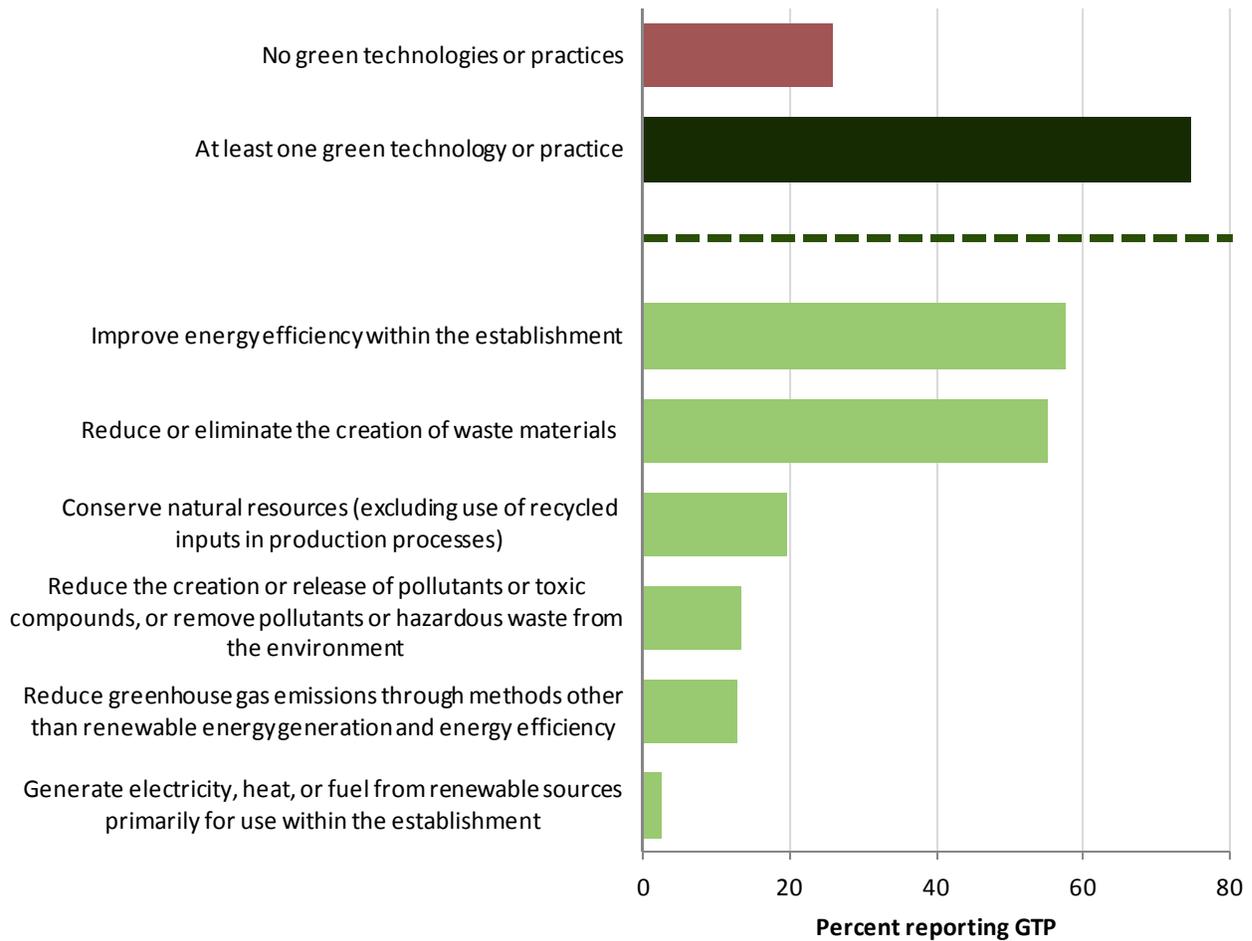
About three-quarters of business establishments reported the use of at least one green technology or practice during August 2011, the U.S. Bureau of Labor Statistics reported today. Green technologies and practices (GTP) are those that lessen the environmental impact of an establishment's operations. About 854,700 jobs, representing approximately 0.7 percent of total U.S. employment, were held by workers who spent more than half of their time involved in green technologies and practices in August 2011. Over one-quarter of these GTP jobs were in building and grounds cleaning and maintenance occupations or in installation, maintenance, and repair occupations.

These data are from the Green Technologies and Practices survey, a survey of business establishments designed to collect data on establishments' use of green technologies and practices and the occupations of workers who spend more than half of their time involved in green technologies and practices. More information about the GTP survey is provided in the Technical Note.

Use of green technologies and practices by business establishments

- Seventy-five percent of business establishments reported the use of at least one green technology or practice during the August survey reference period. (See chart 1 and table 1.)
- The two most frequently reported types of green technologies and practices were those that improve energy efficiency within the establishment, reported by 57 percent of establishments, and those that reduce the creation of waste materials as a result of operations, reported by 55 percent of establishments. The least commonly used green technology or practice was generating electricity, heat, or fuel from renewable sources primarily for use within the establishment, reported by about 2 percent of establishments. (See chart 1 and table 1.)
- Information and educational services were among the industries with the highest incidence of green technologies and practices, with 84 and 81 percent of establishments reporting the use of at least one green technology or practice, respectively. The industries with the lowest incidence of green technologies and practices were mining, quarrying, and oil and gas extraction (49 percent) and transportation and warehousing (61 percent). (See table 2.)

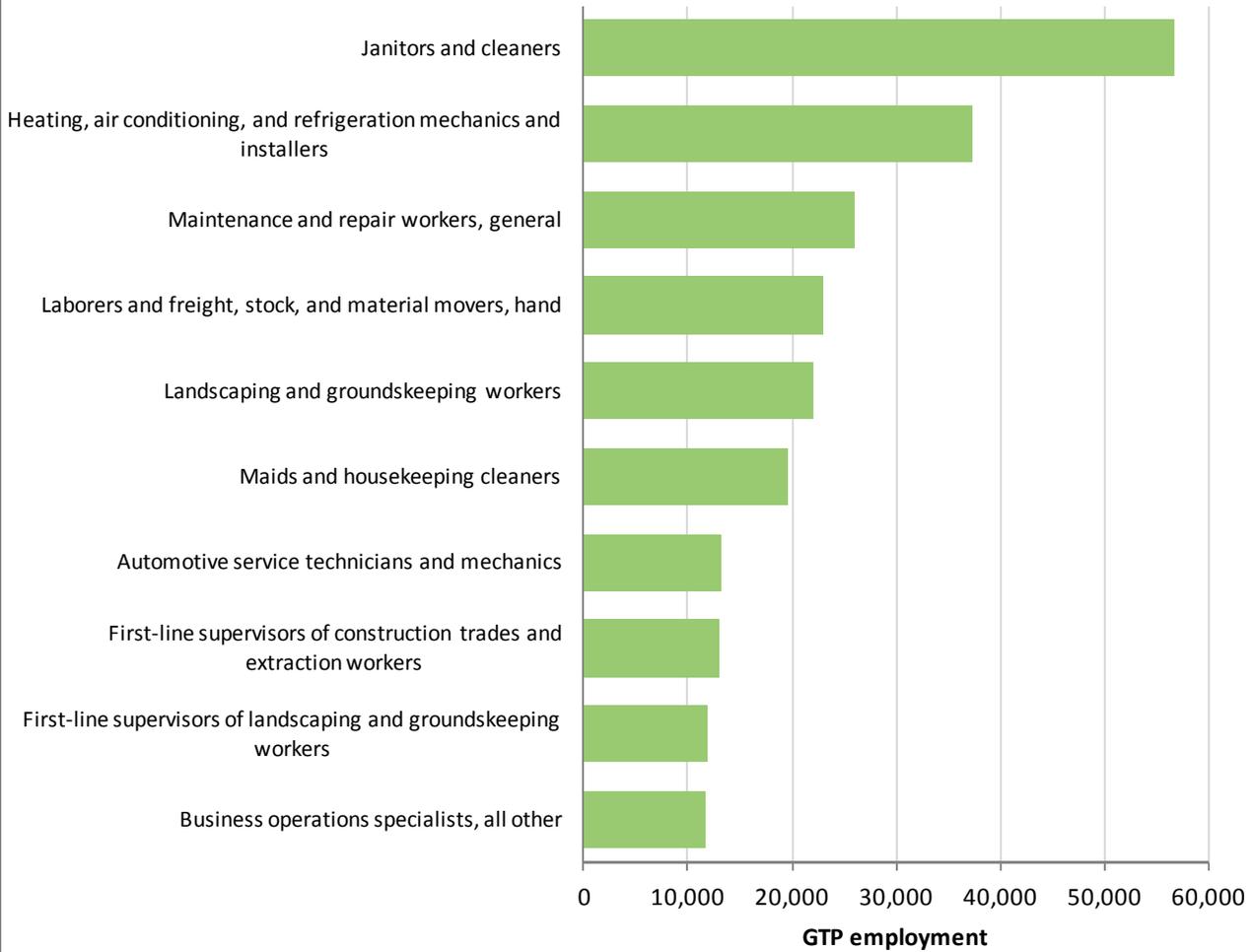
Chart 1. Percent of establishments reporting green technologies and practices, by type of technology or practice, August 2011



Note: Specific types of green technologies and practices are shown by lighter bars. Because establishments could report more than one green technology or practice, the percent of establishments reporting specific green technologies and practices will not sum to the percent of establishments reporting at least one green technology or practice.

- The percentage of establishments reporting the use of at least one green technology or practice varied by region from 72 percent in the South to 77 percent in the West. The general pattern of green technologies and practices usage was similar across all four Census regions, with improving energy efficiency and reducing the creation of waste materials the most commonly reported practices, and generating energy from renewable sources the least commonly reported practice. (See table 1.)
- About 25 percent of establishments reported using only 1 of the 6 types of green technologies and practices listed on the GTP survey form, and an additional 26 percent reported using two green technologies and practices. Nine percent of establishments reported using four or more green technologies and practices. (See table 3.)

Chart 2. Occupations with the highest GTP employment, August 2011



Note: GTP employment is defined as the number of employees spending more than half their time involved in green technologies and practices.

GTP employment by region and by industry

- About 854,700 jobs, representing 0.7 percent of total U.S. employment, were held by workers who spent more than half of their time involved in green technologies and practices during the survey reference period. The South had 267,600 GTP jobs, representing about 31 percent of total GTP employment. About 26 percent of GTP employment was in the West, 23 percent in the Midwest, and 20 percent in the Northeast. (See table 4.)

- The industries with the highest levels of GTP employment included administrative and waste services (151,900) and construction (134,100). GTP employment as a percent of industry employment ranged from 2.3 percent in construction to 0.1 percent in finance and insurance and information. (See table 5.)

GTP employment by occupation

- Over one-quarter of all GTP jobs were in the building and grounds cleaning and maintenance occupational group or in the installation, maintenance, and repair occupational group. The transportation and material moving; production; and construction and extraction occupational groups made up an additional 23 percent of GTP employment. Education, training, and library occupations and arts, design, entertainment, sports, and media occupations were among the occupational groups with the lowest GTP employment. (See table 6.)
- Detailed occupations with the largest number of GTP jobs included janitors and cleaners, except maids and housekeeping cleaners, with 56,700 GTP jobs; heating, air conditioning, and refrigeration mechanics and installers (37,300); and general maintenance and repair workers (26,000). (See chart 2 and table 6.)
- Among occupations with at least 2,500 GTP jobs, the highest paying included general and operations managers, with an annual mean wage of \$103,780 for GTP jobs; construction managers (\$83,480); and civil engineers (\$82,810). The lowest paying occupations included maids and housekeeping cleaners (\$17,950) and farmworkers and laborers, crop, nursery, and greenhouse (\$21,630). (See table 6.)

Differences between Green Technologies and Practices (GTP) and Green Goods and Services (GGS) employment estimates

GTP employment is an estimate of the number of jobs in which workers spend more than half of their time involved in technologies and practices that make their establishment's production processes more environmentally friendly or use fewer natural resources. The GTP estimate is a measure of the BLS process approach to green jobs. The separate Green Goods and Services (GGS) survey measures the output approach to green jobs by identifying establishments that produce green goods and services. The GGS measure of green employment is based on the proportion of revenue the establishment derives from producing green goods and services. The GGS employment estimate includes the workers directly involved in producing such goods and services as well as other employees of the establishment.

GTP and GGS employment are based on two distinct concepts. For this reason, users should not sum the estimates to get a count of "total" green employment nor should they consider the two estimates a range of the number of green jobs. Users should decide which of the approaches best suits their analytical needs. GTP and GGS estimates cannot be compared to each other to provide a measure of the change in green employment over time.

Technical Note

Overview

The Green Technologies and Practices (GTP) survey is a special survey of business establishments designed to measure the use of technologies and practices that lessen the environmental impact of an establishment's production processes. The survey also collects occupational employment and wage data for wage and salary workers who spent more than half of their time involved in green technologies and practices during the survey reference period, the pay period including August 12, 2011. The GTP survey is based on a probability sample of about 35,000 business establishments, drawn primarily from state unemployment insurance (UI) files and stratified by Census region and industry sector.

The GTP survey collects information on the BLS process approach to measuring green jobs: *jobs in which workers' duties involve making their establishment's production processes more environmentally friendly or use fewer natural resources*. More information about the BLS green jobs initiative is available from the green jobs homepage at www.bls.gov/green.

Green technologies and practices are defined as technologies and practices that lessen the environmental impact of an establishment's production processes. Employers were asked whether they had used each of the six green technologies and practices listed below during the reference period. Examples of the types of technologies and practices included in each of the six categories were provided.

1. Generate electricity, heat, or fuel from renewable sources primarily for use within the establishment.

Examples of renewable sources:

- Wind
- Geothermal
- Ocean
- Landfill gas
- Biomass
- Solar
- Hydropower
- Municipal solid waste

2. Use technologies or practices to improve energy efficiency within the establishment.

Examples:

- Energy Star rated appliances
- Occupying a LEED certified building
- Energy efficient lighting
- Programmable thermostats
- Cogeneration (combined heat and power)
- Energy efficient manufacturing equipment

3. Use technologies or practices in operations to reduce greenhouse gas emissions through methods other than renewable energy generation and energy efficiency.

Examples:

- Purchase and use of carbon offsets
- Promotion and/or subsidy of alternative forms of transportation for employees, such as carpools, fuel efficient vehicles, cycling, or mass transit
- Implementation of a telework program for employees

4. Use technologies or practices to either reduce the creation or release of pollutants or toxic compounds as a result of operations, or to remove pollutants or hazardous waste from the environment.

Examples of pollutants or toxic compounds:

- Carbon monoxide
- Sulfur dioxide
- Chlorofluorocarbons (CFCs)
- Nitrogen oxides
- Chlorinated hydrocarbons
- Herbicides or pesticides
- Heavy metals
- Radioactive contamination

5. Use technologies or practices to reduce or eliminate the creation of waste materials as a result of operations.

Examples:

- Collecting and reusing or recycling waste
- Managing wastewater
- Composting solid waste
- Remanufacturing

6. Use technologies or practices in operations to conserve natural resources, excluding the use of recycled inputs in production processes.

Examples:

- Managing land resources
- Managing storm water
- Conserving soil, water, or wildlife
- Implementing organic agriculture or sustainable forestry practices

An *establishment* is generally a single physical location at which economic activity occurs (e.g., store, factory, restaurant, etc.). When a single physical location encompasses two or more distinct economic activities, it is treated as two or more separate establishments if separate payroll records are available and certain other criteria are met.

An *occupation* is a set of activities or tasks that employees are paid to perform. Workers are classified into occupations based on their job duties and, in some cases, on the skills, education, and/or training required. Workers with similar job duties are classified in the same occupation, regardless of the industry in which they are employed. The GTP survey uses the 2010 Standard Occupational Classification (SOC) system to classify workers into occupations.

Wages are money that is paid or received for work or services performed in a specified period. For the purposes of the GTP survey, wages are straight-time, gross pay, exclusive of premium pay. Base rate pay, cost-of-living allowances, guaranteed pay, hazardous-duty pay, incentive pay such as commissions and production bonuses, and tips are included. Back pay, jury duty pay, overtime pay, severance pay, shift differentials, nonproduction bonuses, employer costs for supplementary benefits, and tuition reimbursements are excluded.

GTP employment refers to the number of jobs in which workers spend more than half of their time involved in green technologies and practices.

Survey sample

The GTP survey draws its sample primarily from the Quarterly Census of Employment and Wages (QCEW) state unemployment insurance (UI) files. A supplemental source is used for rail transportation because this industry does not report to the UI

program. The GTP survey covers private and public sector establishments in the 50 states and the District of Columbia.

The GTP sampling frame of about 6.7 million in-scope establishments was stratified by Census region and 2-digit North American Industry Classification System (NAICS) sector. From this frame, a statistical sample of about 35,000 establishments was selected. To provide better survey coverage, larger employers were more likely to be selected than smaller employers.

Data collection

Survey forms were mailed to sampled business establishments. Seventy percent of sampled establishments responded to the GTP survey.

Respondents were asked whether or not they used each of the six green technologies and practices listed earlier during the pay period that included August 12, 2011. They were also asked to provide the number of employees who spent more than half of their time involved in green technologies and practices during the reference period. For such workers, respondents were asked to provide job titles and brief job descriptions, as well as the number of workers, by occupation, in each of 12 specific wage intervals. The wage intervals were defined in terms of both hourly rates and the corresponding annual rates, where the annual rate for an occupation is calculated by multiplying the hourly wage rate by a typical work year of 2,080 hours. Respondents were instructed to report part-time workers at their hourly rates. Full-time workers could be reported by either hourly rates or annual salaries, depending on how the worker was paid.

Estimation methodology

Nonresponse. About 30 percent of sampled establishments either did not respond to the GTP survey, or did not provide sufficient information for their responses to be usable. To compensate for these nonresponding units, the weights of responding units are adjusted through the use of nonresponse adjustment factors (NRAFs). These NRAFs are incorporated into the benchmarking process (see below) and are based on the ratio of weighted maximum 2011 QCEW employment for all viable sample units in the cell to weighted maximum 2011 QCEW employment for usable responding units in the

cell, where maximum employment is defined as the largest employment over all 12 months in the 2011 QCEW.

In addition to these nonrespondents, some units provided partial responses to the GTP survey. Missing responses to green technologies and practices questions are imputed based on a donor pool of respondents with similar establishment characteristics. For establishments reporting occupational employment data but no wage information, the missing occupational wages are imputed using the distribution of weighted employment across wage ranges for respondents reporting that occupation. For establishments reporting green employment but no occupational information, the green employment is assigned to a residual “occupation not reported” category.

Weighting and benchmarking. Sampled establishments are weighted to represent all establishments for the reference period. Each sampled establishment is initially assigned a sampling weight equal to the reciprocal of its probability of selection. To ensure that GTP employment estimates are consistent with total employment for the reference period, weights are further adjusted by the ratio of August 2011 QCEW employment totals to response-adjusted employment totals from the GTP survey.

Wage estimation. Because the GTP survey collects wage data by wage range rather than by wage rate, special procedures are needed to produce mean and median wage estimates. Mean wage estimates are calculated using a weighted mean of the 12 wage intervals.

In order to estimate this, means for the individual wage intervals are needed. These are calculated using harmonic means for 11 of the 12 wage intervals. The interval mean for the highest, open-ended interval is calculated based on data from the BLS National Compensation Survey. For the lowest wage interval, state-specific harmonic means are calculated that incorporate each state’s minimum wage. Median wages are calculated based on a weighted median procedure.

Data available

The GTP survey produces data on the incidence of specific green technologies and practices and on the total number of jobs in which workers spent more than half of their time involved in green technologies and practices. These data are available for all industries combined at the national and Census region levels, and for NAICS industry sectors at the national level. The GTP survey also produces national occupational employment, mean wage, and median wage estimates for jobs in which workers spent more than half of their time involved in green technologies and practices.

For more information

Answers to frequently asked questions about the GTP survey are available at www.bls.gov/gtp/faq.htm. Detailed technical information about the GTP survey is available in our Survey Methods and Reliability Statement at www.bls.gov/gtp/gtp_survey_methods.

Information in this release will be made available to sensory impaired individuals upon request. Voice phone: (202) 691-5200; Federal Relay Service: (800) 877-8339.

Table 1. Number and percent of establishments reporting green technologies and practices, by type of technology or practice, United States and census regions, August 2011

Type of green technology or practice	United States		Northeast ¹		Midwest ²		South ³		West ⁴	
	Number of establishments	Percent of establishments								
Total, all establishments ⁵	6,624,600	100.0	1,309,100	100.0	1,419,400	100.0	2,369,600	100.0	1,526,500	100.0
No green technologies or practices reported	1,691,100	25.5	321,200	24.5	339,900	24.0	674,200	28.5	355,800	23.3
At least one green technology or practice reported ⁶	4,933,500	74.5	988,000	75.5	1,079,400	76.0	1,695,400	71.5	1,170,700	76.7
By type of technology or practice										
Generate electricity, heat, or fuel from renewable sources primarily for use within the establishment	153,300	2.3	35,300	2.7	29,200	2.1	39,200	1.7	49,700	3.3
Use technologies or practices to improve energy efficiency within the establishment	3,799,400	57.4	775,400	59.2	858,700	60.5	1,271,100	53.6	894,200	58.6
Use technologies or practices in operations to reduce greenhouse gas emissions through methods other than renewable energy generation and energy efficiency	835,000	12.6	173,900	13.3	163,400	11.5	267,600	11.3	230,100	15.1
Use practices to either reduce the creation or release of pollutants or toxic compounds as a result of operations, or to remove pollutants or hazardous waste from the environment	861,400	13.0	161,500	12.3	187,700	13.2	288,800	12.2	223,400	14.6
Use technologies or practices to reduce or eliminate the creation of waste materials as a result of operations	3,636,700	54.9	761,400	58.2	812,800	57.3	1,130,300	47.7	932,200	61.1
Use technologies or practices in operations to conserve natural resources (excluding use of recycled inputs in production process)	1,286,800	19.4	246,700	18.8	266,900	18.8	445,700	18.8	327,500	21.5

¹ Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

² Indiana, Illinois, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

³ Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia

⁴ Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

⁵ Detail may not sum to total due to rounding.

⁶ Total will not match the sum of data by type of technology or practice because establishments may report more than one green technology or practice.

Table 2. Number and percent of establishments reporting green technologies and practices, by industry, August 2011

NAICS code	Industry	Number of establishments reporting at least one green technology or practice	Total number of establishments	Percent of establishments reporting at least one green technology or practice
	Total, all industries ¹	4,933,500	6,624,600	74.5
11	Agriculture, forestry, fishing and hunting	64,600	81,900	78.9
21	Mining, quarrying, and oil and gas extraction	13,400	27,100	49.4
22	Utilities	16,900	23,800	71.1
23	Construction	403,200	570,200	70.7
31-33	Manufacturing	221,700	295,200	75.1
42	Wholesale trade	302,400	422,700	71.5
44-45	Retail trade	712,900	916,500	77.8
48-49	Transportation and warehousing	126,800	209,200	60.6
51	Information	94,600	112,800	83.9
52	Finance and insurance	294,700	389,300	75.7
53	Real estate and rental and leasing	206,700	281,500	73.4
54	Professional, scientific, and technical services	540,200	742,600	72.8
55	Management of companies and enterprises	29,500	41,500	71.1
56	Administrative and waste services	252,100	359,900	70.0
61	Educational services	114,300	142,100	80.5
62	Health care and social assistance	560,800	736,900	76.1
71	Arts, entertainment, and recreation	80,200	102,200	78.5
72	Accommodation and food services	439,900	564,100	78.0
81	Other services (except public administration)	360,200	480,400	75.0
92	Public administration	98,300	124,700	78.8

¹Detail may not sum to total due to rounding.

Table 3. Number and percent of establishments reporting green technologies and practices, by number of green technologies or practices reported, August 2011

Number of green technologies or practices reported	Number of establishments	Percent of establishments
Total, all establishments	6,624,600	100.0
No green technologies or practices reported	1,691,100	25.5
At least one green technology or practice reported ...	4,933,500	74.5
By number of practices reported		
One	1,646,700	24.9
Two	1,721,800	26.0
Three	976,100	14.7
Four	421,600	6.4
Five	136,400	2.1
Six	30,900	0.5

Table 4. Employment for workers spending more than half of their time involved in green technologies and practices (GTP employment), United States and census regions, August 2011

Area	GTP employment ¹	GTP employment in area as a percent of U.S. GTP employment	GTP employment as a percent of total area employment
United States ²	854,700	100.0	0.7
Census regions			
Northeast ³	168,500	19.7	.7
Midwest ⁴	198,200	23.2	.7
South ⁵	267,600	31.3	.6
West ⁶	220,300	25.8	.8

¹ Defined as employees who spend more than half of their time involved in green technologies and practices.

² Detail may not sum to total due to rounding.

³ Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

⁴ Indiana, Illinois, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

⁵ Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

⁶ Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Table 5. Employment for workers spending more than half of their time involved in green technologies and practices (GTP employment) by industry, August 2011

NAICS code	Industry	Industry GTP employment ¹	Industry GTP employment as a percent of total GTP employment	Industry GTP employment as a percent of total industry employment
	Total GTP employment, all industries ²	854,700	100.0	0.7
11	Agriculture, forestry, fishing and hunting	18,900	2.2	1.5
21	Mining, quarrying, and oil and gas extraction	3,100	0.4	0.4
22	Utilities	16,800	2.0	2.1
23	Construction	134,100	15.7	2.3
31-33	Manufacturing	57,600	6.7	0.5
42	Wholesale trade	22,900	2.7	0.4
44-45	Retail trade	39,700	4.6	0.3
48-49	Transportation and warehousing	35,100	4.1	0.7
51	Information	3,600	0.4	0.1
52	Finance and insurance	4,700	0.6	0.1
53	Real estate and rental and leasing	10,500	1.2	0.5
54	Professional, scientific, and technical services	99,800	11.7	1.3
55	Management of companies and enterprises	3,900	0.5	0.2
56	Administrative and waste services	151,900	17.8	2.0
61	Educational services	30,800	3.6	0.3
62	Health care and social assistance	63,900	7.5	0.4
71	Arts, entertainment, and recreation	12,900	1.5	0.5
72	Accommodation and food services	58,800	6.9	0.5
81	Other services (except public administration)	27,800	3.2	0.7
92	Public administration	57,800	6.8	0.8

¹Defined as employees who spend more than half of their time involved in green technologies and practices.

²Detail may not sum to total due to rounding.

Table 6. Occupational employment and wages for workers spending more than half of their time involved in green technologies and practices (GTP employment), August 2011

SOC code	Occupation title	GTP employment ¹	Percent of GTP employment	Hourly mean wage	Annual mean wage	Hourly median wage
00-0000	All occupations²	854,700	100.0	\$21.05	\$43,790	\$16.88
11-0000	Management occupations	42,900	5.0	41.17	85,630	37.61
11-1021	General and operations managers	8,600	1.0	49.89	103,780	45.12
11-3011	Administrative services managers	4,100	.5	37.31	77,610	34.18
11-3021	Computer and information systems managers	200	(³)	60.84	126,560	64.85
11-3051	Industrial production managers	800	.1	65.16	135,530	62.05
11-3071	Transportation, storage, and distribution managers	1,100	.1	37.93	78,900	33.08
11-9021	Construction managers	6,400	.7	40.13	83,480	35.35
11-9041	Architectural and engineering managers	4,500	.5	38.76	80,630	(⁴)
11-9111	Medical and health services managers	100	(³)	61.67	128,280	63.75
11-9121	Natural sciences managers	1,400	.2	41.08	85,450	40.32
11-9199	Managers, all other	4,100	.5	49.82	103,630	49.65
13-0000	Business and financial operations occupations	24,800	2.9	26.44	55,000	24.65
13-1023	Purchasing agents, except wholesale, retail, and farm products	1,000	.1	23.15	48,150	24.13
13-1041	Compliance officers	3,800	.4	29.60	61,560	30.09
13-1111	Management analysts	300	(³)	26.75	55,650	21.09
13-1199	Business operations specialists, all other	11,700	1.4	25.17	52,350	22.32
15-0000	Computer and mathematical occupations	8,800	1.0	(⁴)	(⁴)	(⁴)
17-0000	Architecture and engineering occupations	53,200	6.2	30.88	64,220	29.81
17-2051	Civil engineers	6,000	.7	39.81	82,810	39.77
17-2111	Health and safety engineers, except mining safety engineers and inspectors	300	(³)	50.46	104,950	44.30
17-2112	Industrial engineers	1,300	.1	40.97	85,220	37.22
17-2199	Engineers, all other	3,800	.4	37.09	77,140	38.82
19-0000	Life, physical, and social science occupations	32,000	3.7	32.54	67,690	25.81
19-1031	Conservation scientists	2,400	.3	23.52	48,920	(⁴)
19-2041	Environmental scientists and specialists, including health	7,200	.8	29.40	61,160	27.18
19-3051	Urban and regional planners	900	.1	31.63	65,780	29.64
19-4091	Environmental science and protection technicians, including health	3,600	.4	22.81	47,450	21.17
19-4099	Life, physical, and social science technicians, all other	100	(³)	27.68	57,560	22.00
25-0000	Education, training, and library occupations	100	(³)	19.42	40,390	20.28
27-0000	Arts, design, entertainment, sports, and media occupations	800	.1	30.11	62,620	30.79
29-0000	Healthcare practitioners and technical occupations	21,300	2.5	23.84	49,580	17.50
29-9011	Occupational health and safety specialists	3,500	.4	32.86	68,350	36.06
35-0000	Food preparation and serving related occupations	26,100	3.1	10.94	22,750	9.02
37-0000	Building and grounds cleaning and maintenance occupations	123,600	14.5	14.29	29,730	12.70
37-1012	First-line supervisors of landscaping, lawn service, and groundskeeping workers	11,800	1.4	21.23	44,160	20.25
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	56,700	6.6	14.45	30,050	12.59
37-2012	Maids and housekeeping cleaners	19,600	2.3	8.63	17,950	8.42
37-3011	Landscaping and groundskeeping workers	22,000	2.6	14.41	29,980	13.50
39-0000	Personal care and service occupations	3,900	.5	16.89	35,130	16.29
41-0000	Sales and related occupations	30,200	3.5	23.20	48,260	19.86
41-1011	First-line supervisors of retail sales workers	3,500	.4	16.33	33,970	16.29

Table 6. Occupational employment and wages for workers spending more than half of their time involved in green technologies and practices (GTP employment), August 2011 — Continued

SOC code	Occupation title	GTP employment ¹	Percent of GTP employment	Hourly mean wage	Annual mean wage	Hourly median wage
43-0000	Office and administrative support occupations	31,700	3.7	17.76	36,950	14.44
43-1011	First-line supervisors of office and administrative support workers	9,700	1.1	20.15	41,920	18.51
43-5071	Shipping, receiving, and traffic clerks	1,300	.2	12.30	25,580	11.87
43-6014	Secretaries and administrative assistants, except legal, medical, and executive	4,000	.5	16.71	34,750	(⁴)
43-9061	Office clerks, general	4,500	.5	18.01	37,460	13.58
45-0000	Farming, fishing, and forestry occupations	17,100	2.0	12.58	26,170	10.65
45-2092	Farmworkers and laborers, crop, nursery, and greenhouse	11,600	1.4	10.40	21,630	10.16
47-0000	Construction and extraction occupations	79,600	9.3	19.33	40,200	17.45
47-1011	First-line supervisors of construction trades and extraction workers	13,100	1.5	25.38	52,800	24.97
47-2111	Electricians	2,700	.3	28.32	58,910	26.71
47-4011	Construction and building inspectors	400	.1	28.17	58,600	25.08
49-0000	Installation, maintenance, and repair occupations	103,500	12.1	20.64	42,940	17.48
49-1011	First-line supervisors of mechanics, installers, and repairers	10,000	1.2	25.41	52,860	23.36
49-3023	Automotive service technicians and mechanics	13,300	1.6	24.72	51,420	20.77
49-9021	Heating, air conditioning, and refrigeration mechanics and installers	37,300	4.4	18.75	39,000	16.34
49-9043	Maintenance workers, machinery	500	.1	19.70	40,980	18.02
49-9071	Maintenance and repair workers, general	26,000	3.0	21.32	44,350	17.65
49-9099	Installation, maintenance, and repair workers, all other	200	(³)	15.71	32,670	16.49
51-0000	Production occupations	60,800	7.1	18.13	37,710	16.15
51-1011	First-line supervisors of production and operating workers	9,100	1.1	22.93	47,700	23.46
51-8013	Power plant operators	1,600	.2	29.82	62,020	30.65
51-8021	Stationary engineers and boiler operators	1,500	.2	23.42	48,720	22.02
51-8031	Water and wastewater treatment plant and system operators	10,600	1.2	22.39	46,570	22.77
51-9111	Packaging and filling machine operators and tenders	1,300	.1	13.10	27,250	11.97
51-9121	Coating, painting, and spraying machine setters, operators, and tenders	1,800	.2	19.27	40,090	(⁴)
51-9199	Production workers, all other	10,400	1.2	13.55	28,180	13.36
53-0000	Transportation and material moving occupations	59,800	7.0	15.38	31,990	13.30
53-1021	First-line supervisors of helpers, laborers, and material movers, hand	1,900	.2	22.77	47,360	21.25
53-1031	First-line supervisors of transportation and material-moving machine and vehicle operators	7,100	.8	20.61	42,860	16.71
53-7051	Industrial truck and tractor operators	3,300	.4	22.02	45,810	(⁴)
53-7062	Laborers and freight, stock, and material movers, hand	23,000	2.7	11.44	23,800	11.02
99-9999	Occupation not reported	102,300	12.0	(⁴)	(⁴)	(⁴)

¹Defined as employees who spend more than half of their time involved in green technologies and practices.

²Occupational data will not sum to the major group and all-occupations totals because the totals include occupations for which data were not published separately.

³Less than 0.05 percent.

⁴Estimates not released.