

Sign Manufacturing SCOTE Survey - September 2016

State	1. Does your DOT operate a statewide or regional sign shop(s)? If you do operate your own sign shop, please skip to question 5.	2. How many employees work at your sign shop?	3. How many signs do you manufacture per year and what is the approximate value of the signs?	4. What methods of sign manufacturing do you utilize (silk screening, digital printing, etc.)?	5. If you do not manufacture signs, who is your largest supplier?	Additional Comments
Alabama	Yes, one shop at the Central Office level to support Statewide operations.	14 including the supervisor <u>plus</u> a 4-person field crew that assists districts with larger sign installations/replacements and special needs.	Approximately 38,000 annually with an approximate value of \$3,000,000.	Silk screening and cut copy.	It's very rare that our shop can't fill an order but as a backup plan, Vulcan Signs and Korman Signs have contracts to furnish signs in the event our shop is unable to fulfill an order. Additionally, we have an annual contract with Ozark Safety Systems for turnkey installation of larger guide signs where a systemic replacement and/or quicker turnaround is needed.	None.
Arizona	Our ADOT sign factory is located in Phoenix; it supplies most all signs to the Regional Maintenance Districts throughout the state. New builds or projects are done by private contractors usually	We have 5 sign fabricators who will design or just ecut an exsiting design electronically using traffic sign film or they may screen print using one of our 2 presses, sizes up to 96" wide x 48" tall on flat panels, and even larger when ecutting. They will also ecut direct apply copy using Type 11 film for the interstate sign panels. we have just 1 sign factory lead and 1 supervisor. Our total crew size is 7 people	Our facilities total square footage is 17, 726.	Our last 3 year average for: a. sign production 36, 590 completed signs, decals, and copy; b. sign values \$1,221,456; c. sign square footage 127,378; d. signing budget (estimated current year) \$1.1 million	Just screen printing and ecutting of traffic sign films	None.
Arkansas	Yes we do	10, including 2 supervisory positions	In 2015 we produced 62,000 signs at an approximate cost of \$3 million. We manufacture all of the flat sheet signs for all Department signing crews. We do not make signs for cities or counties.	Silk Screen, Electronic Cuttable Films, and Digital Printing	We have a supply contract with Interstate Signways to manufacture all of our large, extruded panel signs	None.
Connecticut	Yes	5 employees including office staff and Supervisor	In 2015 we mfg 11530 square feet of signage for approximately \$250k	Current methods are: Silk Screening, Film Overlay and Yinyle lettering. We are hoping to do digital printing soon.	N/A	None.
Delaware	Statewide	9	45,000 signs @ \$1 to \$1.5 million	Hand fabricating, silk screening and digital printing	N/A	None.
Florida	Yes	11	138,752 signs were fabricated in 2015. This is a combination of silk screening and larger handmade signs.	The sign shop fabricates silkscreen signs and larger handmade signs through the use of a plotter table for cutting legends and stencils. The sign shop also makes delineators, decals, and other miscellaneous signs.	N/A	None.
Golden Gate Bridge, Highway & Transportation District	Yes. Note our sign shop not only serves our bridge and approach roads but also supports our ferry and bus operations.	Three: one supervisor that primarily performs the "design" work whereas other are more focused towards installation. They are essentially an extension of our 'Bridge Painters' so these three perform other duties (e.g., road striping or small painting jobs)	On average our sign shop produces about 200 signs/year. However, this number not limited to traffic control devices for streets and roads but includes "other" signs such as: pedestrian/touris-based wayfinding/guide signs, suicide-deterrent/emergency signs, bicycle regularatory/warning/guide signs, signs that suppor our regional bus services; miscellaneous signs (e.g. restrooms, toll road payment options, various prohibitions (e.g. use of drones), hazmat). I wouldn't know how to begin to tell you the value of these signs. However, I've been told that outsourcing has proven to be "competitive" w/our in-house staff particularly in the event the sign is either "large" (i.e. greater than 4 ft by 6 ft), includes a graphically complex image/logo/pictograph, or both	A low-end/cheap software program similar to SignCAD that is limited to signs no larger than 4ft by 6ft (approximately). Larger signs are outsourced.	We use suppliers for "large" signs (see above) or signs that require multi-colored/complex artwork (e.g. NPS or Coast Guard or similar shields). Typically we go through a low-bid process if more than (say) 10 "large" signs or complex logo(s) are required (I'd say these needs to be "occasional"). If we only require (say) 5 complex/multi-colored logos, we'll typically go w/a local sign shop that has given us good products in the past.	None.
Idaho	Yes, Statewide. We have a centralized sign shop that fabricates all signs requests for traffic supply and districts maintenance, and other agencies. Signs for a construction project are supplied by the contractor unless otherwise requested by the districts to be fabricated in house.	One lead worker and 4 fabricators	Approximately 10K signs per year. This includes decals. Estimated cost is approximately \$750k	Interstate Extruded Aluminum, Digital Print, Silk screen	Signs for construction projects are supply by contractor as part of the project.	None.
Indiana	One statewide INDOT sign shop	One-Manager, One-Sign Operations Supervisor, 2 sign designer's, 3 sign fabricators, 2 IREF work release prisoners	100,000 square feet. Between 1 to 1.5 million	E/C film cut by graph tech plotters	We manufacture all Destination, specialty signs, panel sign overlays. What we don't fabricate is sent to the PEN Products at the Westville Correctional Facility to fabricate	None.
Iowa	Yes, statewide sign shop produces all of the smaller signs that our maintenance staff installs. We also contract six district signing projects to replace warning, regulatory and small guide signs and the sign shop manufactures about 70% of the signs for the projects. All aluminum sign blanks are purchased from Prison Industries.	8 employees (including the supervisor). The sign shop is self-funded, the signs they manufacture are sold to the maintenance shops. While they don't advertise, they can sell to the cities and counties, but they usually can't compete with the prices from the prison. Some cities and counties purchase from our shop for the convenience and the quick turnaround on orders. The funding from the sale of signs is used to pay the sign shop salaries and operating costs.	Production is tracked by the square footage. In average year they produce 160,000 SF of signs. The sign shop could not provide a value of the signs, but the price per SF ranges from \$3.45 to \$13.06 per SF depending on substrate (plywood, aluminum), type of sheeting, and who the buyer is (cities and counties pay a higher price than DOT).	Silk screen and hand applied. Digital printing has been review, but since the printers are specific to the sheeting, it won't work as the sheeting contracts are re-bid every 3-5 years. Although, we have had the same sheeting supplier for as long as I can remember.	N/A	The Sign shop had to bid for their jobs in 1997. The Governor at the time required the DOT to identify pilot projects for competitive bidding. The sign shop and the district paint crews were selected. The sign shop worked with a consultant to determine their true costs and had to put together a bid for the signing work. Their bids had to compete with bids from private industry. They won the bid and have continued to manufacture signs in the years since. (The paint crews also won the bid for the painting and we still have a paint crew in each district, though there is recent talk of reducing from 6 to 4 crews and contracting the rest of the paint work.

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Kentucky	We have a central office sign shop in Frankfort that handles most of our signs fabrication responsibilities. Each of our twelve District Offices has the ability to fabricate their own signs. The signs districts fabricate are normally low volume, specialty signs (such as individual guide signs).	The Central Office sign shop currently has six employees, but would need two additional employees to be considered fully-staffed.	The indicate that they fabricate approximately 50,000 signs per year. They have no idea on the total value of the signs.	The sign shop uses screen printing for the bulk of their signs. They also hand make signs using Flexi V-8 and cut sheeting. The latter is how our District shops produce signs.	We have a master agreement for signs. This contract was secured for occasions where the sign shop is not able to meet the demand. The current contract is with Osburn Associates. To the best of my knowledge, this contract is rarely used as such purchases hit the districts' maintenance budgets. Signs provided from the central sign shop are zero cost to the districts.	None.
Louisiana	We operate a Central Sign Shop. We have 9 regional Districts which order signs from either a finished sign contract or directly from our shop.	We have 6 employees and a Shop Supervisor for a total of 7	The shop produces a smaller amount of individual standard signs as the contract is utilized for the District stock. This pas year we fabricated 39,000 standard signs at an estimated value of \$800,000. The shop produces small and large directional signs as needed. This small directional signs are made with flat aluminum sheeting and cut to size. This accounts for 4,000 square feet with a value of \$20,000. The large directional signs are made with extruded panels and cut to size. This accounts for 15,000 square feet with a value of \$104,000. The districts purchases 34,000 signs at a value of approximately \$680,000 of the contract. Total expenditures total about \$1.5 million	In house we do screening and EC films depending on the quantity needed. Digital printing is only for signs which will not be placed on the roadways (EX: Yard Signs, decals, etc).	We have had a sign contract for over 15 years. The following vendors have maintained the contract at one time during those years. Rocal Inc, Vulcan Signs, Custom Products.	None.
Maine	Yes. We operate statewide	6 (3 graphics personnel and 3 sign makers)	Signs: 23,380; Sq. Ft.: 57,010; Billed: \$300,000. We also generate smaller type magnets and stickers for various State Agencies also.	We have 2 scotchlite applicators one capable of doing 12" extruded panels but both are capable of sheet aluminum up to 48". We also have 2 vinyl plotters capable of cutting vinyl and hi-intensity materials up to 48". Signs are held assembled	N/A	None.
Maryland	Yes, the SHA has an in-house sign shop that fabricates signs for all seven engineering districts and 28 SHA maintenance shops. We have also fabricated highway signing for other business units within the Maryland Department of Transportation	5 Sign Technicians, 1 Sign Operations Supervisor, 1 Sign Operations Manager, and 2 Temporary laborers	56,000 square feet or approximately 6,000 signs yearly ranging from very small auxiliary signs to very large overhead guide signs. The approximate value is \$600,000.	Silk screen, extruded aluminum, CASM (computer aided sign manufacturing), traditional hand layout.	During periods of high demand, Maryland Correctional Enterprises is also used to supplement our in-house fabricaiton capacity. Contractors are often asked to supply signs for capital projects.	None.
Massachusets	Medford Sign Shop supplies signs statewide	1 Supervisor, 4 Sign Letterers, 4 Carpenter/Installers	We produce about 50,000 square feet of signage a year at approximate cost of \$4.50 per square foot for the completed sign (aluminum, sheeting, vinyl)	Silk Screening, digital printing and vinyl application	N/A	None.
Michigan	Both	The statewide sign shop has 3 employees	Our statewide sign shop produced approximately 22,000 sqare feet of plywood, aluminum panel and extruded aluminum plank signs in FY2015 with a value of \$290k	We silk screen and direct apply sheeting	The statewide sign shop produces specialty and guide signs. MDOT gets most of its signs that maintenance forces place due to knockdowns/new individual installations from Michigan State Industries (the state prison sign shop). These signs are ordered for inventory in our maintenance warehouse. For 2015-2016 they produced New Signs 41,125.5 sq ft and recycled signes 2648.0 sq ft.	None.
Minnesota	MnDOT operates one sign shop for the entire state.	One half time supervisor (striping takes the other half), 4 full time, and 1-2 part time seasonal	85,000-151,000 sq ft of signs (50/5-60% are fabricated in MnDOT's sign shop and 40%-50% come from a vendor) \$1.5-\$1.9 million is the annual value	Mainly hand happlied with EC film	Currently Lyle Signs	None.
Mississippi	We operate a statewide sign shop that supplies all signs replaces as part of DOT maintenance work (A number of signs are replaces in construction projects.)	Currently 12	Average 20,000 signs/120,000 sq ft; approx. value \$1M (signs only; not including supports, extruded panels or labor for installation)	Silk screen, direct applied. Our shop is set up to make standard signs, and both small & large hand-made guide signs	N/A	None.
Missouri	NO. MoDOT used to operate it's own sign fabrication facility that supplied signs for all maintenance operations as well as supplying other graphical products. We closed the facility in 2013 as part of a department wide resizing effort after successfully awarding an outsourcing contract to replace the facilities functions.	We had 10 at the time the facility closed, 14 was the normal staffing.	On average the facility would produce 120,000 signs per year with peaks as high as 250,000 signs a year.	Silk Screening was used for large production runs of standard signs, electro cut films (EC Film) was used extensively for low volume runs (less than 10 of one sign) or to produce one off signs, such as adopt a highway signs or destination boards for conventional routes. We utilized direct applied legend for guide signs with legends larger than 6" font and used EC film for small guide signs with 6" font or smaller. We used flat sheet aluminum and 12" extruded panel aluminum panels (for signs 6 feet or wider) at the two sign sup straights and had an extensive reclamation program where we used reclaim blanks for 60-70% of our production (both flat sheet and extruded panel).	Our contract is split into thre categories, flat sheet signs, structural signs (extruded panel) and unique (smaller, sepcialized items like stop/slow paddles, delineator plates, post conspicuity stripes, etc.). Current Osburn Associates out of Logan Ohio has the flat sheet and structural contracts and Highway Safety Solutions in Springfield MO has the unique category.	None.
Nebraska	No - Closed a few years ago	N/A	N/A	N/A	The equipment from the Department of Roads sign shop was transferred to the Department of Corrections. They now provide all our signs, except for any purchased and install by a contractor through a bid let construction project.	None.

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Nevada	Our sign shop serves the entire state of Nevada	4 employees	Last Fiscal year - 9,084 signs total; Valued at \$213,653.00 total; 32,035 sq. ft. @ \$6.67 sq. ft. average	We use plotters, silk screening and digital in jet printer	N/A	None.
New Hampshire	Yes	One full time employee (we had three up until three budget cycles ago). Our statewide traffic maintenance operation is in the state capitol, so we are able to utilize pavement marking personnel on rain days and/or the winter months, to supplement the Sign Shop staff. If pressed, we also utilize sign maintenance personnel as needed. By statute, the majority our signs are manufacture in house. We also manufacture signs needed for urgent issues, because, apparently, there are rules as to when people that are locked up can work.	2,000 signs per year. We don't track dollar value	We use pressure applied sheeting. We have a roller for 12" aluminum plant and another for sheet aluminum up to 48". We also have hot tip sheeting cutters to cut copy. Everything else is by hand. Digital printing would not work for us as we would have to commit to a single sign sheeting vendor and we do not produce the quantity of the signs to justify the upfront expense. We used to do screen printing until the mid 1990's when the prison took over all those signs.	Corrections Industries provides the vast majority of our stock signs; however, we add a number of signs to our field inventory through capital improvement projects.	None.
New Jersey	NJDOT has a sign shop with fabricates signs for maintenance crews statewide. NJDOT also has a statewide overhead sign crew which fabricates and installs all overhead signs, statewide. The sign shop primarily fabricates single sheet panel, and multiple sheet panel signs. Multiple sheet panel signs are assembled together with horizontal Z-bars. The overhead crew primarily fabricates extruded panel signs	Two supervisors and 5 sign techs	Approximately 11,000 signs per year. Actual dollar value of signs is unavailable. Assuming \$50 per sign \$550,000 each year.	Silk Screen - primary fabrication method for signs with a non variable message, ie Stop, Yield, Do Not Enter, etc.; Electronic Cut (EC) Film - primary fabrication method for signs with variable messages, ie directionals, mile markers, etc.; Digital Printing - Purchased Avery TrafficJef summer 2016; intended to replace EC Film process for large production runs of signs such as enhanced reference location signs for entire interstates. Signs not for highway use are typically digitally printed with another Mutoh printer.; Direct Apply Letters - Overhead signs; extruded panels are typically 12" wide by variable length according to sign design. Each panel is covered individually with 12 3/4" wide sheeting. Legend is applied with direct applied sheeting cut on Graphtec cutter	N/A	None.
New Mexico	NMDOT has 3 sign fabrication shops. The shop at the General Office produces signs for Districts 3,4,5, and 6 while Districts 1 and 2 have their own sign fabrication shop	There are 5 positions within the sign fabrication shop. However, we are currently operating with only 3 employees as one position is frozen and another employee is out on injury	The General Office sign shop fabrications approximately 5,800 signs last year. The average value of these signs was approximately \$185/sign for a total of \$1,073,000.	The sign shop uses silk screen and digital printing	N/A	None.
New York	YES BUT FRACTION OF PREVIOUS SIZE PRIOR TO OUTSOURCING. We had operated a large sign shop in Hamburg, NY until about ten years ago. It needed extensive updating of the facility and equipment. Combined with on-going labor issues, our Maintenance Division which was in charge of the operation decided to close it down. The supervisor retired and the three workers were re-assign to other positions. At the time it was in operation, it produced many of our specialty signs along with standard signs (STOP, speed limit, warning signs, etc.). When the facility closed, most of the sign orders were reassigned to Corcraft (State prison industries). We still have a small sign shop in our Washington County Residency that can make a sign in an emergency and it only operates on an as need basis. We recently had them manufacture about two dozen State Law signs for highway-rail grade crossings. They probably make less than 50 signs in a good year.	N/A	N/A	N/A	Corcraft manufacturers most of the signs that our maintenance forces put up. We also have some signs made by the New York State Thruway which operates their own sign shop. I am cc'ing the thruway's Traffic Engineer (Robert Cournoyer) as he can provide info about their sign shop. Signs for capital projects are supplied by the contractor.	None.
Ohio	Statewide. We are a centrally located sign shop at our headquarters in Columbus, Ohio. We fabricate signs for all 12 ODOT Districts who perform internal maintenance. Signs installed through construction projects are provided by others.	7 total, 5 sign fabrication technicians, 2 supervisors. As large orders come in we also supplement with temporary employees obtained from a Temp Agency.	our last fiscal year we produced 82,547 signs totaling 216,131 square feet, valued at approximately \$1,825,600. Our average turnaround time for maintenance orders was 17 days, rush orders were 5 days.	We have a silk screen area with an extensive screen catalog, as well as a lab for developing new screens as needed. We also have a direct copy area with 2 drum plotters and a flatbed plotter, we do not use digital printing for highway use, however do have a large thermal printer that we use for special projects (i.e. Decals, stickers, building signs, etc.). We can produce any size freeway/expressway extrusion signage, but rarely make signs that exceed 24' in width. Common size sign blanks are purchased and stocked from a term contract, but we have the equipment necessary to produce specialty sizes and stock as needed.	When we cannot accommodate large sign orders internally, we have a "as needed" sign fabrication contract that is competitively bid to supplement our forces. While this contract is rarely used, we do have a contract with MD Solutions, Inc.	None.

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Oregon	ODOT operates a statewide Sign Shop that provides sign fabrication and transport to ODOT Maintenance Districts, as well as to other State and Local Government agencies.	ODOT Sign shop has 4 production workers (including Lead Worker) and 1 supporting Admin. Staff	Our Sign Shop fabricates between 30,000 to 40,000 signs per year of varying sizes. Current inventory is valued at roughly \$4 million	The Sign Shop works with 3 different substrates (plywood, shet aluminum, and extruded aluminum panels), and the methods vary according to the substrate materials. They use silk screening, digital printing, direct application of legend or "reverse weed" direct application for plywood or sheet aluminum substrates. For extruded aluminum panels, they have traditionally direct applied background sheeting to the individual panels, bolted the panels together and then riveted on the individual pieces of legend. The ODOT Sign Shop cuts their own "demountable legend for this purpose. More recently, the Sign Shop has experimented some with the direct application "reverse weed" process on smaller extruded panel signs	N/A	None.
South Carolina	We operate a statewide sign shop. We consolidated several years ago from three regional sign shops to one statewide shop.	Ideally 8, presently 6. This includes the manager. We package/pallet the signs and deliver to a supply depot. The depot delivers the signs throughout the state. They also bring back signs for refurbishing on the return trips.	Approximately 80,000 signs depending on need and I'd guess \$1.5 million to \$2 million as a value. The cost comes from assumig 2.25/sq. ft. for aluminum and .84/sq. ft. for sheeting and a \$0.50/sq. ft. for labor and overhead. And assuming an average 6 sq. ft./sign. We are not a union state and our labor costs are perhaps lower than yours. The average sign production worker makes about \$28,000/year.	We screen and roll and trim, make hand lay signs (guide signs mostly), and have the capability to produce extruded aluminum panels. Most extruded panel signs are produced and erected under contract	We also utilize the prison industries sign shop to handle sign requests that exceed our capacity or if there are issues with materials. We are required to fill orders in 30 days.	Do you refurbish your aluminum blanks?
Texas	Yes, TXDOT Operates 2 Sign shops in the state. One located in North East Texas and West Central Texas	14 Employees including shop surpervisors	Historically, we measure the amount of signs fabricated in square feet. Both of our sign shops produce a total of 35,000 sq ft per month on small signs (48" and smaller) and we average 1500 sq ft of large signs per month (48" and larger). This past year we did start measuring the number of signs manufactured and we averaged 7,100 signs per month.	All signs made at our sign shops are made with direct applied sheeting, no silk screening or no digital printing.	We purchase completed and blank signs from the Texas Prison system. The blanks are then used to make completed signs at our sign shops (route markers, D Series and signs with low demand)	None.
Vermont	yes, a small sign shop to make emergency signs or special orders such as text (sheeting only) overlays but our primary operator retired last year.	N/A	N/A	N/A	Gets most of it's signs through Corrections Industries.	None.
Virginia	Operates one statewide sign shop, Central VDOT Sign Shop (CVSS)	17 employees	We produced approximately 120,000 items this year for a total value of a little over \$3 million.	Silk Screening (Mass Produced Signs) Produced 42,421; Handmade Signs (Custom signs using sign cutting digital plotters) Produced 8474; Digital Printers (posters, banners, specialty signs, and decals) Produced 32,750; Die Punch machine (for numbers and letters) approximately Produced 36,000	N/A	None.
Washington	Yes, a statewide sign shop	A staff of 9. 7 permanent employees and 2 temporary employees	100,000 sq feet per year. Roughly 15,000 signs per year at \$1 million.	Hand applied letters from a plotter, silk screening, and some digital printing for temporary signs	N/A	None.
Wisconsin	YES BUT FOR DISTRIBUTION ONLY. Wisconsin has a central sign shop that is primarily a distribution center. The shop has the capability of making EC signs for emergencies. WisDOT stopped making signs with state staff a number of years ago.	One supervisor (also responsible for several other program areas), consultant CAD specialist and full time WisDOT shop tech that receives, sorts, stocks and ships signs.	N/A	N/A	Badger State Industries (prison system) for replacements and private sector for improvement projects	None.
Wyoming	Yes - Statewide	6 including a supervisor	10,000 per year/\$805,000 value	Hand fabricated signs using EC film on reflective background.	N/A	None.